S.I. No. 125/2000 — Radiological Protection Act, 1991 (Ionising Radiation) Order, 2000

S.I. No. 125 OF 2000

RADIOLOGICAL PROTECTION ACT, 1991 (IONISING RADIATION) ORDER, 2000

CONTENTS

Part 5

Protection of Exposed Workers, Apprentices and Students

Part 6

Work Activities involving Natural Radiation Sources

S.I. No. 125 OF 2000

RADIOLOGICAL PROTECTION ACT, 1991 (IONISING RADIATION) ORDER, 2000

I, JOE JACOB, Minister of State at the Department of Public Enterprise. in exercise of the powers conferred on me by subsections (1) and (2) of section 30 of the Radiological Protection Act. 1991 (No.9 of 1991), and the Public Enterprise (Delegation of Ministerial Functions) Order, 1998 (No. 16 of 1998), and for the purposes, amongst other things, of giving effect to Council Directive 96/29/Euratom[1] of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation and Council Directive 90/641/Euratom[2] of 4 December 1990 on the operational protection of outside workers exposed to the risk of ionising radiation during their activities in controlled areas and after consultation with the Ministers for Finance, Enterprise, Trade and Employment, Agriculture, Food, and Rural Development, Health and Children, Education and Science, Foreign Affairs, the Environment and Local Government, Defence, Marine and Natural Resources and the Radiological Protection Institute of Ireland, hereby order as follows:

Part 1

CITATION, DEFINITIONS AND SCOPE

1. Citation and Commencement

(1) This Order may be cited as the Radiological Protection Act, 1991 (Ionising Radiation) Order, 2000.

(2) This Order shall come into operation on 13 May 2000.

2. Interpretation

(1) In this Order-

"absorbed dose" or "D" means the energy absorbed per unit mass averaged over a tissue or organ, calculated in accordance with following formula (expressed in grays):

$$D = \frac{d\varepsilon}{dm}$$

where

— d ε is the mean energy imparted by ionising radiation to the matter in a volume element, and

— dm is the mass of the matter in this volume element;

— d ε is the mean energy imparted by ionising radiation to the matter in a volume element, and

— dm is the mass of the matter in this volume element:

“accelerator” means apparatus or installation, in which particles are accelerated, emitting ionising radiation with an energy higher than 1 mega-electron volt (MeV);

“accidental exposure” means an exposure of individuals as a result of an accident but does not include an emergency exposure:

“activation” means a process through which a stable nuclide is transformed into a radionuclide by irradiating with particles or high-energy gamma rays the material in which it is contained;

“activity” or “A” means the activity, A. of an amount of a radionuclide in a particular energy state at a given time, calculated in accordance with the following formula (expressed in becquerels):

$$A = \frac{dN}{dt}$$

where dN is the expectation value of the number of spontaneous nuclear transitions from that energy state in the time interval dt;

“air crew” means the cabin and flight crew of an aircraft operated by an air operator or an undertaking in the State which operates an aircraft;

“air operator” means the holder of an Air Operator's Certificate issued by the Irish Aviation Authority in accordance with the Irish Aviation Authority (Air Operators' Certificate) Order, 1999 (S.I. No. 420 of 1999);

“Annex I” means Annex I of the Council Directive (which for convenience of reference is set out in Schedule 5);

“Annex II” means Annex II of the Council Directive (which for convenience of reference is set out in Schedule 6);

"Annex III" means Annex III of the Council Directive (which for convenience of reference is set out in Schedule 7);

"apprentice" means a person receiving training or instruction within an undertaking with a view to exercising a specific skill:

"approved dosimetric service" means a body that carries out -

(a) the calibration, reading or interpretation of individual monitoring devices, or

(b) the measurement of radioactivity in the human body or in biological samples, or

(c) the assessment of doses.

being a body which is referred to in subparagraph (a) or (b) of Article 24(1);

"approved medical practitioner" has the meaning assigned to it by Article 25(2);

"approved radon measurement laboratory" means a laboratory that carries out -

(a) the calibration, reading or interpretation of radon detectors,

(b) the measurement of radon concentration in air, or

(c) the assessments of doses due to radon.

being a body which is referred to in subparagraph (a) or (b) of Article 24(1);

"artificial sources" means radiation sources other than natural radiation sources;

"category A worker" means an exposed worker designated as such pursuant to Article 18(1);

"category B worker" means an exposed worker designated as such pursuant to Article 18(2);

"committed effective dose" or "E(t)" means the sum of the committed organ or tissue equivalent doses (H r τ) resulting from an intake, each multiplied by the appropriate tissue weighting factor W_T and is calculated in accordance with the following formula (expressed in sieverts):

$$E(\tau) = \sum_{T} w_T H_T(\tau)$$

where in specifying E(τ), τ is given in the number of years over which the integration is made;

"committed equivalent dose" or "$H_T(\tau)$" means the integral over time (t) of the equivalent dose rate in tissue or organ T that will be received by an individual as a result of an intake and is calculated in accordance with the following formula (expressed in sieverts):

$t_0 + \tau$

$$H_T(\tau) = \int_{t_0} H_T(t)dt$$

for an intake at time t_0 where

- $H_\tau(t)$ is the relevant equivalent dose rate in organ or tissue T at time t,

- τ is the time, expressed in years, over which the integration is performed or where τ is not specified, a period of 50 years is assumed for adults and up to age 70 for children;

“controlled area” means an area classified as such under Article 15:

“Council Directive” means Council Directive 96/29/Euratom of 13 May 1996, laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation;

“disposal” means, in relation to waste -

(a) the emplacement of waste in a repository, or a given location, without the intention of retrieval, or

(b) the approved direct discharge of wastes into the environment, with subsecuent dispersion;

“dose constraint” means a restriction on the prospective dose to individuals which may result from a defined source, for use at the planning stage in radiation protection whenever optimisation is involved;

“dose limits” means maximum values laid down in Schedule 2 for the doses resulting from the exposure of workers, apprentices and students and members of the public to ionising radiation to which this Order applies, being the values of the sum of the relevant doses from external exposures in the specified period and the 50 year committed doses (up to age 70 for children) from intakes in the same period;

“effective dose” or “E” means the sum of the weighted equivalent doses in all the tissues and organs of the body specified in Schedule 6 from internal and external radiation and is calculated in accordance with the following formula (expressed in sieverts):

$$E = \sum_T w_T H_T = \sum_T w_T \sum_R w_R D_{T.R}$$

where

- $D_{T.R}$ is the absorbed dose averaged over tissue or organ T, due to radiation R,

- W_R is the radiation weighting factor,

- W_T is the tissue weighting factor for tissue or organ T, and

- the appropriate W_T and W_R values are specified in Schedule 6;

“emergency exposure” means an exposure of individuals who are implementing the necessary rapid action to bring help to endangered individuals, prevent exposure of a large number of people or save a valuable installation or goods, whereby any one of the individual dose limits specified in Schedule 2 could be exceeded;

"equivalent dose" or "$H_{T.R}$" means the absorbed dose in tissue or organ T, weighted for the type and quality of radiation R. and calculated in accordance with the following formula (expressed in sieverts):

$$H_{T.R} = w_R D_{T.R}$$

where

- $D_{T.R}$ is the absorbed dose averaged over tissue or organ T. due to radiation R. and

- w_R is the radiation weighting factor, the appropriate values of which are specified in Schedule 6;

"exposed workers" means persons, either self-employed or working for an employer, who are subject to an exposure incurred at work from practices or work activities to which this Order applies, being an exposure liable to result in doses exceeding one or other of the dose levels equal to the dose limits for members of the public;

"exposure" means the process of being exposed to ionising radiation;

"functions" includes powers and duties and a reference to the performance of functions includes with respect to the powers and duties, a reference to the exercise of the powers and the carrying out of the duties;

"health detriment" means an estimate of the risk of reduction in length and quality of life occurring in a population following exposure to ionising radiation, (including such a reduction in length or quality arising from somatic effects, cancer and severe genetic disorder);

"High Radon Area" means an area where the Institute predicts that more than 10% of dwellings in that area will have radon concentrations above 200 Bq m^{-3} or such other area as the Institute may determine from time to time;

"Institute" means the Radiological Protection Institute of Ireland;

"intake" means the activities of radionuclides entering the body from the external environment;

"intervention" means a human activity that prevents or decreases the exposure of individuals to radiation from sources which are not part of a practice or which are out of control, by acting on sources, transmission pathways and individuals themselves;

"intervention level" means a value of avertable equivalent dose, avertable effective dose or a derived value, at which the taking of intervention measures should be considered; the avertable dose or derived value is solely that associated with the exposure pathway to which the intervention measure is to be applied;

"ionising radiation" means the transfer of energy in the form of particles or electromagnetic waves of a wavelength of 100 nanometers or less, or a frequency of 3 x 10^{15} Hertz or more, capable of producing ions directly or indirectly;

"irradiating apparatus" means an apparatus capable of producing ionising radiation and containing components operating at a potential difference of more than 5kV;

"licence" means a licence referred to in section 30 of the Principal Act;

"medical exposure" means

(a) the exposure of patients as part of their own medical diagnosis or treatment,

(b) the exposure of individuals as part of occupational health surveillance,

(c) the exposure of individuals as part of health screening programmes,

(d) the exposure of healthy individuals or patients voluntarily participating in medical or biomedical, diagnostic or therapeutic, research programmes, or

(e) the exposure of individuals as part of medico-legal procedures;

"Member State" means a Member State of the European Communities;

"members of the public" means individuals in the population, excluding exposed workers, apprentices and students during their working hours and individuals or volunteers during the exposures referred to in subparagraphs (a), (b) and (c) of Article 10(3);

"Minister" means the Minister for Public Enterprise;

"National Accreditation Board" means the committee of that name established by resolution of the Board of Forfas, pursuant to section 10 of the Industrial Development Act, 1993 (No. 19 of 1993), as amended by section 46 of the Industrial Development (Enterprise Ireland) Act, 1998 (No. 34 of 1998);

"natural radiation sources" means sources of ionising radiation from natural terrestrial or cosmic origin;

"nuclear device" means any machine or apparatus the operation of which involves the use of a radioactive substance, an irradiating apparatus or a nuclear reactor;

"outside undertaking" means the employer of an outside worker;

"outside worker" means a Category A worker who carries out services in the controlled area of any undertaking (other than in the controlled area of his or her own undertaking or his or her employer's undertaking), whether self-employed or an employee of an outside undertaking, including such an undertaking which has its principal place of business in another Member State;

"population" means the whole population including exposed workers, workers, apprentices, students and members of the public;

"potential exposure" means an exposure, that is not expected to be delivered with certainty, with a probability of occurrence that can be estimated in advance;

"practice" means a human activity that can increase the exposure of individuals to radiation from an artificial source, or from a natural radiation source where natural radionuclides are processed for their radioactive, fissile or fertile properties, other than an activity that results in an emergency exposure;

"Principal Act" means the Radiological Protection Act, 1991 (No. 9 of 1991) ;

"radiation passbook" means -

(a) in the case of an outside worker whether self-employed or employed in the State by an outside undertaking, a passbook approved for the purposes of this Order by the Institute;

(b) in the case of an outside worker employed in another Member State by an outside undertaking, a passbook authorised by the competent authority of that Member State;

"radiation protection adviser" shall be construed in accordance with Article 19(3);

"radioactive contamination" means the contamination of any material, surface or environment or of an individual by radioactive substances and, in the case of the human body, includes both external skin contamination and internal contamination, irrespective of route of intake;

"radioactive substance" means any substance capable of emitting ionising radiation and includes any radionuclide, whether natural or artificial;

"radiological emergency" means a situation that requires urgent action in order to protect workers, members of the public or the population, either partially or as a whole;

"radon" means radon-222 gas in air;

"reference group of the population" means a group comprising individuals whose exposure to a source is reasonably uniform and representative of that of the individuals in the population who are the more highly exposed to that source;

"registered medical practitioner" has the meaning assigned to it by the Medical Practitioners Act 1978 , (No. 4 of 1978);

"sealed source" means a source whose structure is such as to prevent, under normal conditions of use, any dispersion of the radioactive substances into the environment;

"source" means an apparatus, a radioactive substance or an installation capable of emitting ionising radiation or radioactive substances;

"supervised area" means an area classified as such pursuant to Article 15;

"total equivalent dose" or "(H_T)" means the sum of the equivalent doses due to a radiation field which is composed of types and qualities of radiation with different values of W_R and is calculated in accordance with the following formula (expressed in sieverts):

$$H_T = \sum_R w_R D_{T.R}$$

where

- $D_{T.R}$ is the absorbed dose averaged over tissue or organ T. due to radiation R. and

- w_R is the radiation weighting factor, the appropriate values of which are specified in Schedule 6;

"undertaking" means any natural or legal person who, as a self employed person or employer as the case may be, carries on or intends to carry on any practice or work activity to which this Order applies, and references to "the undertaking" are to the particular undertaking carrying on the practice or work activity concerned:

"workplace" includes any place, land or other location at, in, upon or near which, work is carried on whether occasionally or otherwise and, in particular, includes -

(a) a premises, including a cave or mine,

(b) an installation on land and any offshore installation (including any offshore installation to which the Principal Act applies),

(c) a tent, a temporary structure or movable structure, and

(d) a vehicle, vessel or aircraft.

(2) A word or expression that is used in this Order and is also used in the Council Directive shall, unless the contrary intention appears, have the same meaning that it has in the Council Directive.

(3) In this Order (other than in Schedule 5, 6 or 7) -

(a) a reference to an Article or Schedule is a reference to an Article of or Schedule to this Order unless it is indicated that a reference to some other enactment is intended;

(b) a reference to a paragraph or subparagraph is a reference to a paragraph or subparagraph of the provision in which the reference occurs unless it is indicated that reference to some other provision is intended.

Scope

3. (1) This Order applies to all practices which involve a risk from ionising radiation emanating from an artificial source or from a natural radiation source in cases where natural radionuclides are being or have been processed in view of their radioactive, fissile or fertile properties including -

(a) the custody, production, processing, handling, holding, storage, use. manufacture, importing into or exporting from the European Union, distribution, transportation, recycling, re-use or other disposal of radioactive substances and nuclear devices and, without prejudice to the generality of the foregoing, includes -

(i) the operation and decommissioning of any facility involved in the nuclear fuel cycle and the exploitation and closure of uranium mining,

(ii) the deliberate addition of radioactive substances in the production and manufacture of medicinal products and the import or export of medicinal products to which radioactive substances have been deliberately added,

(iii) the deliberate addition of radioactive substances in the production and manufacture of consumer goods and the import or export of consumer goods to which radioactive substances have been deliberately added,

(iv) the deliberate administration of radioactive substances to persons and, in so far as radiation protection of human beings is concerned, animals for the purpose of medical or veterinary diagnosis, treatment or research,

(v) the use of radioactive substances for industrial radiography or processing of products, or research, or the exposure of persons for medical diagnosis or treatment.

(b) the custody, distribution or use of irradiating apparatus including x-ray sets for industrial radiography, or the processing of products or research or the exposure of persons for medical diagnosis or treatment and the use of accelerators excluding electron microscopes;

(c) any other practice specified by the Institute.

(2) Save where otherwise indicated in this Order, this Order also applies to work activities not referred to in paragraph (1) which -

(a) take place in workplaces having radon concentrations in excess of 400 Bq m^{-3}, averaged over a minimum period of 3 months, or

(b) involve natural radiation sources, other than radon, which result in an effective dose to workers or members of the public in excess of 1 mSv in a period of 12 months.

(3) Articles 7, 11, 33 and 42 of this Order apply to work activities involving the operation of aircraft pursuant to an Air Operator's Certificate whereby any member of the air crew is liable to be subject to exposure to cosmic radiation in excess of 1 mSv in a period of 12 months.

(4) Articles 15, 16, 17, 29(1)(a) and 34(3) do not apply where the persons concerned are undergoing medical exposure.

(5) In accordance with Articles 36 to 40, this Order also applies to any intervention in cases of radiological emergencies or in cases of lasting exposure resulting from the after effects of a radiological emergency or a past or old practice or work activity.

(6) This Order does not apply to exposure to radon in dwellings, to the natural level of radiation arising from radionuclides contained in the human body, to cosmic radiation prevailing at ground level or to above ground exposure to radionuclides present in the undisturbed earth's crust.

Part 2

REGULATION OF PRACTICES AND WORK ACTIVITIES

Licensing of Practices

4. (1) Subject to Article 5, a practice to which this Order applies shall not be carried on save under and in accordance with a licence issued by the Institute.

(2) Such a licence shall not be granted in respect of the deliberate addition of radioactive substances in the production of foodstuffs, toys, personal ornaments and cosmetics and the import and export of such goods.

Exemptions

5. (1) Subject to paragraph (2), Article 4 does not apply to practices involving -

(a) radioactive substances where the quantities involved do not exceed in total the exemption values set out in column 2 of Table A to Annex I or in exceptional circumstances, different values authorised by the Institute that satisfy the criteria in Annex I,

(b) radioactive substances where the concentrations of radioactivity per unit mass do not exceed the exemption values set out in column 3 of Table A to Annex I or, in exceptional circumstances, different values authorised by the Institute that satisfy the criteria set out in Annex I,

(c) apparatus containing radioactive substances exceeding the quantities or concentration values specified in paragraph (a) or (b), provided that -

(i) it is of a type approved by the Institute,

(ii) it is constructed in the form of a sealed source,

(iii) it does not cause, in normal operating conditions, a dose rate exceeding 1 $uSvh^{-1}$ at a distance of 0.1 m from any accessible surface of the apparatus, and

(iv) conditions for disposal have been specified by the Institute,

(d) the use of any electrical apparatus to which this Order applies, other than that referred to in subparagraph (e), provided that -

(i) it is of a type approved by the Institute, and

(ii) it does not cause, in normal operating conditions, a dose rate exceeding 1 $uSvh^{-1}$ at a distance of 0.1 m from any accessible surface of the apparatus,

or

(e) the use of any cathode ray tube intended for the display of visual images, or other electrical apparatus operating at a potential difference not exceeding 30 kV, provided that this operation does not cause, in normal operating conditions, a dose rate exceeding 1 $uSvh^{-1}$ at a distance of 0.1 m from any accessible surface of the apparatus;

(2) Nothing in paragraph (1) shall affect the application of this Order to -

(a) the deliberate addition of radioactive substances in the production and manufacture of medicinal products and the import or export of such goods,

(b) the deliberate addition of radioactive substances in the production and manufacture of consumer goods and the import or export of such goods,

(c) the deliberate administration of radioactive substances to persons and, in so far as radiation protection of human beings is concerned, animals for the purpose of medical or veterinary diagnosis, treatment or research, or

(d) the disposal, recycling or reuse of radioactive substances or radioactive materials arising from any licensed practice.

Licensing Procedures

6. (1) An application for a licence shall be made to the Institute not later than one month before the proposed commencement of the practice concerned.

(2) An application for a licence shall be in such form as the Institute determines and shall include -

(a) the particulars specified in Schedule 1,

(b) the risk assessment for the proposed practice referred to in Article 9(2), and

(c) the radiation safety procedures referred to in Article 17(1),

(3) In the case of a practice for which justification in accordance with Article 8 is required, an application for a licence in respect of the practice shall also include a statement setting out grounds for the justification of the practice.

(4) Where in the opinion of the Institute the information supplied by an applicant in an application is insufficient or inadequate for the purpose of enabling the Institute to decide whether or not to grant a licence, it may by notice in writing (sent to the applicant at the address specified in the application) require the applicant to furnish the Institute with such additional information as it specifies in the notice.

(5) A licence shall, subject to any condition relating to expiry specified in the licence, expire on the date specified in that behalf in the licence.

(6) Where the holder of a licence proposes to apply for a further licence to operate from the expiry of his or her existing licence, he or she shall apply to the Institute in accordance with the provisions of paragraph (2) for such further licence not later than 1 month before the expiry of the existing licence. Such an application shall be in such form and contain such particulars as the Institute specifies.

(7) The holder of a licence may at any time before the expiry of the licence apply to the Institute in writing for an amendment to the licence. An application for such an amendment shall -

(a) specify the reasons for the proposed amendment, and

(b) as appropriate, furnish a revised risk assessment and revised radiation safety procedures.

(8) When a licence has been granted, no modifications to practices, equipment or

facilities, the subject of that licence, shall be carried out without the prior consent of the Institute.

(9) A licence granted under the Radiological Protection Act, 1991 (General Control of Radioactive Substances, Nuclear Devices and Irradiating Apparatus) Order. 1993 (S.I. No. 151 of 1993) which is in force immediately before the commencement of this Order shall continue in force in accordance with its terms as if it were a licence granted under this Order and may be amended or revoked accordingly.

Notification of Work Activities

7. (1) This Article applies to a work activity referred to in Article 3(2) or 3(3).

(2) The undertaking concerned shall notify the Institute forthwith after the date referred to in paragraph (3) of the work activity or as provided for in Articles 30(4) or 32(3) and shall provide it with the information concerning the work activity referred to in Schedule 1.

(3) The date referred to in paragraph (2) is -

(a) in case the work activity commenced before the commencement of this Order. the commencement of this Order, and

(b) in case the work activity commenced after such commencement, the commencement of the work activity.

(4) Where, in the opinion of the Institute, the information supplied by an undertaking in accordance with paragraph (2) is insufficient or inadequate, the Institute may, by notice in writing, require that undertaking to furnish the Institute with such additional information as it specifies in the notice.

(5) Where an undertaking has notified the Institute of a work activity in accordance with paragraph (2) and subsequently makes a material change in that work activity which would affect the information so notified, the undertaking shall forthwith notify the Institute of that change.

Part 3

JUSTIFICATION, OPTIMISATION AND DOSE LIMITATION

Justification

8. (1) No practice shall be licensed under this Order unless-

(a) it falls within a class or type of practice carried on immediately before the commencement of this Order, or

(b) it falls within a class or type of practice which has been approved in writing by the Institute (which the Institute is hereby empowered to do) as being justified by its economic, social or other benefits in relation to the health detriment it may cause.

(2) If an undertaking wishes to apply for a licence to carry on a practice of a class or type not carried on immediately before the commencement of this Order or

already approved in writing by the Institute, then it must submit with its application, in accordance with Article 6(3), the grounds on which it believes the proposed practice is justified by its economic, social or other benefits in relation to the health detriment it may cause.

(3) If the Institute considers that the grounds submitted under paragraph (2) do not provide justification for the proposed practice, it shall afford the undertaking an opportunity to make further representations in relation to the matter.

(4) If the Institute considers, in the light of new and important evidence about the efficacy or consequences of any practice, that the carrying on of the practice is no longer justified, it shall give notice in writing to any undertaking holding a licence to carry on the practice that it proposes to revoke that licence pursuant to its powers under the Principal Act.

(5) If the Institute proposes to revoke a licence in the circumstances referred to in paragraph (4), it shall by notice in writing (sent to the applicant at the address specified in his or her application under Article 6) inform the applicant of that proposal and invite him or her to make representations to the Institute, within 1 month from the date of the giving of the notice, as to why, in this applicant's opinion, the licence ought not to be revoked.

Optimisation, Dose Constraints and Risk Assessment

9. (1) The undertaking shall ensure that all exposures, including those to the population as a whole, from practices and work activities under its control, are kept as low as reasonably achievable, taking into account economic and social factors, except for -

(a) the case of medical exposures other than radiotherapeutic procedures, which exposures shall be kept as low as reasonably achievable consistent with obtaining the required diagnostic information, taking into account economic and social factors, and

(b) the case of medical exposure of individuals for radiotherapeutic purposes, in which exposures of target volumes shall be individually planned, taking into account that doses to non-target volumes and tissues shall be as low as reasonably achievable and consistent with the intended radiotherapeutic purpose of the exposure.

(2) For the purpose of identifying the protective measures needed to restrict exposures to ionising radiation, the undertaking shall, before commencing a practice, make an assessment acceptable to the Institute of the risks of exposure to ionising radiation arising from the practice or from reasonably foreseeable accidents resulting from the practice for workers and members of the public who may be affected.

(3) The undertaking shall, in respect of a work activity, make an assessment acceptable to the Institute of the risks of exposure to ionising radiation arising from the work activity to any workers or members of the public for the purposes of identifying the protective measures needed to restrict exposure to ionising radiation.

(4) Where, in the opinion of the Institute, the assessment provided by the

undertaking in accordance with paragraph (2) or (3) is insufficient or inadequate, the Institute may, by notice in writing sent to the undertaking at the address specified in its application under Article 6 in the case of a practice, or at the address given in its notification under Article 7, in the case of a work activity require that undertaking to furnish the Institute with such additional information as it specifies in the notice.

(5) The undertaking shall, where appropriate, use dose constraints in restricting exposure to ionising radiation pursuant to paragraph (1).

Dose Limitation

10. (1) Subject to paragraph 2 of Schedule 2 persons under 18 years of age may not be assigned to any work which would result in their being exposed workers.

(2) Without prejudice to Article 12, the undertaking shall ensure that each person referred to in Schedule 2 is not exposed to ionising radiation in excess of the dose limit specified in that Schedule in relation to that person in a period of 12 months.

(3) Paragraph (2) does not apply to -

(a) the exposure of individuals as part of their own medical diagnosis or treatment,

(b) exposure of individuals knowingly and willingly helping (other than as part of their occupation) in the support and comfort of patients undergoing medical diagnosis or treatment,

(c) exposure of volunteers participating in medical and biomedical research programmes.

(4) In relation to subparagraphs (b) and (c) of paragraph (3), the undertaking shall comply with such guidelines as the Institute may issue in relation to the appropriate procedures to be followed in respect of persons exposed in accordance with either of these subparagraphs (and such guidelines may include dose constraints).

Special Protection During Pregnancy and Breast Feeding

11. (1) As soon as may be after a pregnant woman worker informs the undertaking of her condition, the undertaking shall provide a level of protection for the child to be born which is comparable with that provided for members of the public.

(2) The undertaking shall ensure that the conditions for the pregnant woman in her employment after she has so informed it of that matter are such that the equivalent dose to the child to be born is as low as reasonably achievable and will be unlikely to exceed 1 mSv during the remainder of the pregnancy following the undertaking being informed of the pregnancy.

(3) On being informed by a woman that she is breast feeding, the undertaking shall not employ her in work involving a significant risk of bodily radioactive contamination.

Specially Authorised Exposures

12. (1) In exceptional circumstances, excluding radiological emergencies and evaluated on a case by case basis, the Institute may, where some specific operation so requires, authorise under this Article individual occupational exposures of particular workers exceeding the dose limits specified in Schedule 2 but only if such exposures are limited in time, confined to certain working areas and are within maximum exposure levels defined for the particular case by the Institute.

(2) The undertaking shall submit an application to the Institute carefully justifying the proposed exposure and providing information about the risks involved and precautions to be taken.

(3) The undertaking shall permit only Category A workers who have volunteered for such exposures to be subject to exposures authorised under this Article.

(4) Apprentices, students, pregnant women and breast-feeding women shall not be permitted to be subject to such exposures.

(5) Before an exposure authorised under this Article takes place, the undertaking shall consult with the workers concerned, the approved medical practitioner and the radiation protection adviser.

(6) The undertaking shall ensure that information about the risks involved and the precautions to be taken during such an exposure are provided to the relevant workers in advance.

(7) The undertaking shall ensure that all doses relating to such exposures are separately recorded in the health record referred to in Article 25(11) and in the individual dose record referred to in Article 22(2).

(8) An undertaking shall not, without the agreement of the worker, exclude a worker from his usual employment on the grounds that the worker has exceeded a dose limit as a result of an exposure authorised under this Article.

Part 4

ESTIMATION OF EFFECTIVE DOSE

Effective Dose

13. (1) For the purposes of the estimation of effective and equivalent doses, the values and relationships referred to in Annexes II and III shall be used unless the Institute has authorised the use of equivalent methods.

(2) Without prejudice to paragraph (1) -

(a) for external radiation, the values and relationships referred to in Annex II shall be used to estimate the relevant effective and equivalent doses,

(b) for internal exposure from a radionuclide or from a mixture of radionuclides, the values and relationships referred to in Annexes II and III shall be used to estimate the effective doses.

Part 5

PROTECTION OF EXPOSED WORKERS, APPRENTICES AND STUDENTS

Arrangements in the workplace

14. (1) For the purposes of radiation protection, the undertaking shall make arrangements for all workplaces where there is a possibility of exposure to ionising radiation in excess of dose limits specified in paragraph 3 of Schedule 2. Such arrangements must be appropriate to the nature of the installations and sources and to the magnitude and nature of the risks. The scope of the precautions and monitoring, as well as their type and quality, must be appropriate to the risks associated with the work involving exposure to ionising radiation.

Classification of Areas

15. (1) The undertaking shall, having regard to the assessment made by it under Article 9(2), classify as a controlled area any area under its control in which-

(a) it is necessary for any person who enters or works in the area to follow a specified system of work designed to restrict exposure to ionising radiation or prevent or limit the probability and magnitude of radiological accidents or their effects, or

(b) any person working in the area is liable to receive an equivalent dose greater than 6 mSv in a period of 12 months or an equivalent dose greater than three tenths of any relevant dose limit specified in paragraph 1(2) of Schedule 2, in respect of an exposed worker.

(2) The undertaking shall classify as a supervised area any area under its control, not being classified as a controlled area, in which-

(a) it is necessary to keep the conditions of the area under review to determine whether the area should be designated as a controlled area, or

(b) any person working in the area is liable to receive an effective dose greater than 1 mSv in a period of 12 months or an equivalent dose greater than one tenth of any relevant dose limit specified in paragraph 1(2) of Schedule 2, in respect of a member of the public.

(3) The undertaking shall keep under review the working conditions in controlled and supervised areas and, if appropriate, revise the classification of the areas concerned.

Requirements for Controlled and Supervised Areas

16. (1) The undertaking shall ensure in the case of a controlled area that -

(a) the area is delineated,

(b) access is restricted to individuals who have received appropriate instructions and is controlled in accordance with the radiation safety procedures.

(c) any outside worker entering or remaining in the area has been certified fit to be classified as a Category A worker in accordance with Article 25, has been issued with the necessary personal protective equipment and is subject to individual dose monitoring pursuant to Article 22,

(d) wherever there is a significant risk of the spread of radioactive contamination, specific arrangements are made including arrangements for the access and exit of individuals and goods.

(e) taking into account the nature and extent of the radiological risks in the controlled area, radiological surveillance of the working environment is organised in accordance with Article 21, and

(f) signs indicating that it is a controlled area and the nature of the radiological sources and their inherent risks are displayed.

(2) The undertaking shall ensure in the case of a supervised area that -

(a) as a minimum, taking into account the nature and extent of the radiological risks in the supervised area, radiological surveillance of the working environment is organised in accordance with the provisions of Article 21, and

(b) if appropriate, signs indicating that it is a supervised area and the nature of the sources and their inherent risks are displayed.

(3) The undertaking, in fulfilling its obligations under paragraphs (1) and (2), shall consult with the radiation protection adviser.

(4) The undertaking shall ensure that, in relation to an outside worker, as soon as is reasonably practicable after the services carried out by that outside worker in any controlled area designated by it are completed, an estimate of the dose received by that worker is entered into his or her radiation passbook.

Radiation Safety Procedures

17. (1) For the purpose of enabling work involving ionising radiation to be carried out in accordance with the requirements of this Order and, in particular, for the purpose of identifying the manner in which the safety, health and welfare of workers and other persons shall be secured, the undertaking shall, in respect of any controlled area or, where appropriate having regard to the nature of the work carried out there, any supervised area, prepare a statement in writing of such procedures (in this Order referred to as “radiation safety procedures”) as it considers ought to be followed.

(2) Such a statement shall have regard to the radiological risks involved and the nature of the activities concerned and, in particular, to the assessments carried out under paragraphs (2) and (3) of Article 9 by the undertaking.

(3) The radiation safety procedures shall be reviewed by the undertaking -

(a) periodically, and

(b) if circumstances arise in which it has reason to believe any of the procedures are no longer appropriate, immediately upon those circumstances arising.

and shall be amended by it as it considers appropriate.

(4) When the Institute or an inspector is satisfied that any radiation safety procedures are inadequate in a material way, it may give a direction to the undertaking concerned to amend the procedures in a specified manner and the undertaking shall comply with the direction within 30 days from the date of the direction being given by the Institute.

(5) The undertaking shall take all reasonable steps to ensure that the provisions of the radiation safety procedures prepared by it are observed.

(6) The undertaking shall ensure that the radiation safety procedures prepared by it are brought to the attention of and made available to the workers concerned and other persons who may be affected by them.

Classification of Exposed Workers.

18. (1) The undertaking shall classify as a Category A worker an exposed worker who is liable to receive an effective dose greater than 6 mSv in a period of 12 months or an equivalent dose greater than three tenths of the dose limits for the lens of the eye, or, as the case may be, the skin, hands, forearms, feet and ankles specified in paragraph 1 of Schedule 2.

(2) The undertaking shall classify as a Category B worker, an exposed worker who is not classified as a Category A worker.

Radiation Protection Adviser

19. (1) The undertaking shall be responsible for assessing and implementing arrangements for the radiological protection of exposed workers.

(2) The undertaking shall appoint in writing one or more suitable persons to perform the functions expressed by this Order to be performable by a radiation protection adviser and a reference in this Article to a suitable person shall be construed as a reference to a person having the knowledge and training needed to carry out physical, technical or radiochemical tests enabling doses to be assessed and to give advice in order to ensure effective protection of individuals and the correct operation of protective equipment.

(3) References in this Order to “the radiation protection adviser” shall be construed as references to the person or, as the case may be, each person so appointed.

(4) The undertaking shall consult with each person so appointed in relation to the steps it takes to comply with this Order.

(5) The undertaking shall not appoint a person to act as a radiation protection adviser unless that person's name appears in the part of the register referred to in paragraph (6) containing the names of persons for the time being standing approved by the Institute as persons who may be appointed to act as such advisers in relation to the type of practice or work activity concerned.

(6) The Institute shall establish and maintain a register containing the names of persons for the time being standing approved by the Institute as persons who

may be appointed to act as radiation protection advisers.

(7) The Institute may approve persons for that purpose whether in relation to practices or work activities generally or a particular type of practice or work activity and the register referred to in paragraph (6) shall be divided into parts corresponding to those types of practice or work activity (including practices or work activities generally) and the name of each person standing approved under paragraph (6) shall be entered in the appropriate part of that register accordingly.

(8) For the purposes of paragraph (6), the Institute may, after consultation with such professional bodies as it considers appropriate, determine and publish educational, training or other requirements (whether relating to qualifications or otherwise) compliance with which it determines to be necessary before it approves a person under that paragraph and different such requirements may be determined with respect to different types of practice or work activity.

(9) Without prejudice to paragraph (4), the undertaking shall consult the radiation protection adviser in relation to the following matters -

(a) the examination and testing of protective devices and measuring instruments,

(b) the prior critical examination of plans for installations from the point of view of radiation protection,

(c) the acceptance into service of new or modified sources from the point of view of radiation protection,

(d) the regular calibration of measuring instruments and the regular checking that they are serviceable and correctly used,

(e) the implementation of the requirements of paragraphs (1) and (2) of Article 16.

(f) appropriate quality assurance programmes including quality control measures to be taken under this Order for irradiating apparatus, nuclear devices and radioactive substances, and

(g) the estimation of doses pursuant to Article 23.

(10) The undertaking shall provide the radiation protection adviser with adequate information and facilities for the discharge of his or her functions.

(11) The undertaking shall notify the Institute in writing of the appointment of a radiation protection adviser within 1 month following the date of the appointment.

(12) In this Article “appoint” means to engage -

(a) under a contract of service, or

(b) under a contract for services,

whether whole time or part time and the decision as to which of those methods is used shall be made by the undertaking having regard to the nature of the practice or work activity carried on by it.

Information and Training

20. (1) The undertaking shall inform exposed workers, apprentices and students in relation to -

(a) the health risks involved in their work including -

(i) the general radiation protection procedures and precautions to be taken and, in particular, those involved with operational and working conditions in respect of both the practice in general and each type of work station or job to which they may be assigned, and

(ii) the importance of complying with the requirements of this Order,

and

(b) in the case of women, the need for early declaration of pregnancy in view of the risks of exposure for the child to be born and the risk of contaminating the nursing infant in the case of bodily radioactive contamination.

(2) The undertaking shall ensure that sufficient and appropriate training in the field of radiation protection is provided for exposed workers, apprentices and students.

(3) The undertaking shall ensure that adequate information is given to other persons who are directly concerned with the work with ionising radiation that is carried on by the undertaking to ensure their health and safety so far as is reasonably practicable.

Monitoring of Working Environments

21. (1) The radiological surveillance referred to in Articles 16 (1)(e) and 16(2)(a) shall comprise, where appropriate -

(a) the measurement of external dose rates, indicating the nature and quality of the radiation in question,

(b) the measurement of air activity concentration and surface density of radioactive substances, indicating their nature and their physical and chemical states, and

(c) the measurement of radon by an approved radon measurement laboratory.

(2) The undertaking shall provide suitable and sufficient measuring instruments for carrying out the surveillance referred to in paragraphs (1)(a) and (1)(b) and shall ensure that the instruments are properly maintained and fit for the intended purpose. It shall consult the radiation protection adviser with regard to the suitability of the measuring instruments.

(3) The undertaking shall ensure that -

(a) all measuring instruments are individually calibrated before first use and annually thereafter using sources or equipment traceable to appropriate national standards, and

(b) the maintenance, examination and calibration of measuring instruments are carried out by persons who have knowledge of and understanding of currently accepted testing standards and relevant technical guidance in relation to the types of monitoring equipment.

(4) The results of the measurement referred to in paragraph (1) shall be used, if necessary, for estimating individual doses as provided for in Article 23.

(5) The undertaking shall -

(a) make suitable records of the results of the measurements referred to in paragraph (1) and of the maintenance and calibrations carried out in accordance with paragraph (3),

(b) ensure that the records made pursuant to subparagraph (a) are made available to the radiation protection adviser if he or she requests them, and

(c) maintain each of the records referred to in subparagraph (a) for a period of at least 5 years from the date on which it is made.

Dose Monitoring of Persons

22. (1) The undertaking shall ensure that -

(a) individual dose monitoring is carried out by an approved dosimetric service or, as appropriate, by an approved radon measurement laboratory, for all exposed workers, apprentices and students,

(b) in cases where Category A workers are liable to receive significant internal contamination, an adequate system for monitoring is set up; in identifying such cases, the undertaking shall take account of any general guidelines issued by the Institute in that regard,

(c) in cases of accidental exposure, the relevant doses and their distribution in the body are assessed, and

(d) in cases of emergency exposure, individual monitoring or assessment of the individual doses is carried out as appropriate to the circumstances.

(2) The undertaking shall ensure that -

(a) a record containing the results of the individual monitoring is made for each exposed worker, apprentice and student,

(b) the record referred to in subparagraph (a) contains -

(i) a record of the individual doses measured or estimated, as the case may be, pursuant to paragraph (1)(a) and Article 23(1),

(ii) in the case of accidental or emergency exposures, the reports of the circumstances and the actions taken,

(iii) in the case of specially authorised exposures, a record of the individual doses measured, and

(iv) the results of monitoring of the working environment used to assess individual doses, where necessary.

(c) the Institute is provided with the summaries of all dose records relating to that year within 3 months of the end of each year; the format of such summaries shall have regard to such guidelines as may be issued by the Institute for the purposes of this Order in that regard,

(d) the Institute is notified immediately of any dose received by an exposed worker, apprentice or student in excess of a dose limit specified in paragraphs 1 or 2, as the case may be of Schedule 2, and

(e) in the case of Category B workers, the dose record referred to in subparagraph (a) is maintained for at least 5 years from the date on which the measurement was made.

(3) The undertaking shall make suitable arrangements with an approved dosimetric service or radon measurement laboratory, as appropriate, for that service or laboratory -

(a) to make assessments of the doses referred to in paragraph (1)(a) by the use of suitable individual measurements for appropriate periods or where individual measurement is inappropriate, by means of suitable measurements.

(b) in the case of Category A workers, to make, keep up to date and maintain a record of the dose assessments referred to in subparagraph (a) relating to each exposed worker until -

(i) that worker has or would have attained 75 years of age, or

(ii) the expiry of the period of 50 years from the date on which that worker has ceased to do the work involving exposures,

whichever is the later,

(c) to provide the undertaking at appropriate intervals with the results of the measurements made in accordance with subparagraph (a),

(d) to notify immediately the undertaking and the Institute of any dose received by any exposed worker, apprentice or student in excess of a dose limit specified in paragraphs 1 or 2 as the case may be of Schedule 2.

(4) The undertaking shall provide the approved dosimetric service or radon measurement laboratory with such information concerning its exposed workers, apprentices or students as is necessary for the approved dosimetric service or radon measurement laboratory to comply with the arrangements made for the purpose of paragraph (3).

(5) If a Category A worker ceases employment with an undertaking, the undertaking by which he or she was employed shall ensure that a copy of the worker's dose records for the previous 12 months is forwarded to the Institute

within 3 months of that cessation.

(6) The undertaking shall, at the request of any exposed worker employed by it (whether under a contract of service or a contract for services) or of a person formerly so employed by it, obtain from the approved dosimetric service or radon measurement laboratory and make available forthwith to that worker a copy of the dose record provided for the purposes of paragraph (2)(a) in respect of that worker.

(7) In the case of an accidental or emergency exposure, the undertaking shall ensure that the results of individual monitoring are submitted to the Institute without delay.

(8) The undertaking shall -

(a) ensure that each outside worker retained by it is provided with an individual radiation passbook which shall be non-transferrable and in which there shall be entered the particulars specified in Schedule 4; and

(b) make suitable arrangements to ensure that the particulars entered in the radiation passbook are kept up-to-date while the outside worker is retained by that undertaking.

Estimated Dose

23. (1) Without prejudice to paragraph (3), in cases where an individual dose measurement is impossible or inadequate either because of loss or damage to a dose meter or for any other reason, the undertaking shall in the case of a Category A worker -

(a) estimate the dose to the exposed worker either from individual measurements made on other exposed workers or from the results of surveillance of the workplace as provided for in Article 21,

(b) notify the worker of the dose estimated in accordance with subparagraph (a),

(c) arrange for the approved dosimetric service or the approved radon measurement laboratory, as appropriate, to enter the dose in the individual's dose record and to identify it as an estimated dose,

(d) in cases of accidental or emergency exposure, inform the Institute in writing of the estimated dose, including the methodology applied.

(2) The undertaking shall ensure that the data used in calculating the estimated dose are retained for a period of at least 5 years from the date on which they were recorded.

(3) Where there is reason to believe that the dose received by an exposed worker is much greater or less than that recorded on the dose meter, the undertaking shall also comply with the requirements specified in paragraph (1).

(4) Where the Institute considers that any estimation made in accordance with paragraph (1) is inadequate, it may direct the undertaking to carry out whatever additional investigations the Institute considers necessary in order to establish

the estimated dose, and the undertaking shall comply with that direction.

(5) Where the Institute is notified of an estimated dose under paragraph (1)(d), the subsequent entry in the individual's dose record shall be subject to the approval of the Institute.

Approval of Dosimetric Services and Radon Measurement Laboratories.

24. (1) A dosimetric service or a radon measurement laboratory shall not do any act in pursuance of this Order unless -

(a) in a case where its principal place of business is in the State, it complies with the general criteria for the operation of testing laboratories specified in European Standard EN 45001 (or its equivalent for the time being) and is accredited for the purposes of this Order by the National Accreditation Board or such other body as the Minister may appoint for the purposes of this Article, and

(b) in a case where its principal place of business is in a Member State (other than the State), it is approved by the relevant competent authority for approving or authorising such services or laboratories in that State, or it is accredited by a body that is recognised by the European Co-operation for Accreditation as a body which is competent to grant such accreditation under European Standard EN 45003 (or its equivalent for the time being).

(2) In deciding whether a service or laboratory should be accredited under paragraph (1)(a), the National Accreditation Board or other body referred to in that paragraph shall -

(a) apply the criteria specified in European Standard EN 45002 (or its equivalent for the time being), and

(b) where appropriate, require the use of proficiency testing schemes.

(3) The National Accreditation Board or other body referred to in paragraph (1)(a) shall maintain a register of services and laboratories accredited by it under that paragraph.

(4) An approval granted to a dosimetric service or radon measurement laboratory for the purposes of the European Communities (Ionising Radiation) Regulations. 1991 (S.I. No. 43 of 1991) which is in force immediately before the commencement of this Order shall continue in force in accordance with its terms as if it were an accreditation or approval granted for the purposes of this Order until the date specified in it as the date of expiry or 13 May 2001, whichever date is the earlier.

Medical Surveillance of Category A Workers

25. (1) This Article shall apply to Category A workers and any worker whom an undertaking intends to classify as a Category A worker.

(2) Without prejudice to the duties of the undertaking under this Order, the undertaking shall appoint a registered medical practitioner to carry out medical surveillance of each worker to whom this Article applies who is employed or retained by it (and a registered medical practitioner who is so appointed is

referred to in this Order as an "approved medical practitioner").

(3) The medical surveillance referred to in paragraph (2) shall be based on the principles that govern occupational medicine and must allow for ascertaining the state of health of workers under surveillance as regards their fitness for the tasks assigned to them.

(4) The undertaking shall provide the approved medical practitioner with access to any relevant information and records that he or she may require including information and records with regard to the environmental conditions existing in the working premises.

(5) The medical surveillance referred to in paragraphs (2) and (3) shall include -

(a) a medical examination of the worker prior to his or her being classified as a Category A worker; the purpose of this examination shall be to determine the worker's fitness for a post as a Category A worker for which he or she is being considered, and

(b) periodic reviews of his or her health.

(6) The review referred to in paragraph (5) (b) shall be conducted at least once a year or at such lesser intervals as the approved medical practitioner considers necessary and shall be conducted for the purpose of determining whether or not the worker is fit to perform his or her duties. The nature of such a review shall depend on the type of work and on the individual's state of health

(7) If the approved medical practitioner indicates the need for such surveillance the undertaking shall arrange for the medical surveillance under this Article by such a practitioner to be continued for such period after the worker concerned has ceased to be employed or retained by the undertaking as the approved medical practitioner specifies.

(8) The approved medical practitioner shall adopt the following medical classification with respect to fitness for work as a Category A Worker -

(a) fit.

(b) fit. subject to certain conditions. or

(c) unfit.

(9) The undertaking shall ensure that no worker is employed or classified for any period in a particular post as a Category A worker if the medical findings of the approved medical practitioner deem him or her unfit for that post.

(10) If the approved medical practitioner has determined that a worker is fit for work subject to certain conditions, the undertaking shall not employ or retain or continue to employ or retain the worker as a Category A worker unless it complies with those conditions.

(11) The undertaking shall ensure that a health record, containing the particulars specified in Schedule 3, is made and kept up to date for each worker to whom this Article applies and that it is retained until -

(i) the worker has or would have attained 75 years of age, or

(ii) the expiry of the period of 50 years from the date on which that worker has ceased to do the work involving exposure,

whichever is the later.

Special Medical Surveillance of Exposed Workers

26. (1) The undertaking shall provide such medical surveillance in addition to that required by Article 25 as is appropriate in each case where a worker, apprentice or student has received an exposure in excess of the dose limits specified in Schedule 2.

(2) In the case of workers referred to in paragraph (1), the undertaking shall ensure that any determination by it with regard to the subsequent conditions for the exposure of these persons is approved of by the approved medical practitioner.

(3) In addition to the medical surveillance of exposed workers provided for in this Order, the undertaking shall make provision for any further actions in relation to the health protection of the exposed individual considered necessary by the approved medical practitioner, such as further examinations, decontamination measures or urgent remedial treatment.

(4) Any person aggrieved by -

(a) a decision made by the approved medical practitioner under Article 25(8) with respect to fitness for work,

(b) a decision made by the undertaking as to the extent of medical surveillance to be provided under paragraph (1), or

(c) a determination made by the undertaking under paragraph (2),

may appeal to the High Court against that decision or determination.

(5) The High Court, on the hearing of an appeal under paragraph (4), may, as it thinks appropriate, affirm the decision or determination concerned or modify it in such manner as it thinks fit.

Operational Protection of Apprentices, Students and Outside Workers

27. (1) The exposure conditions and operational protection provided by the undertaking for apprentices and students aged 18 years or more shall be equivalent to that of exposed workers of Category A or B, as appropriate.

(2) The exposure conditions and operational protection provided by the undertaking for apprentices and students aged 16 years or more but less than 18 years shall be equivalent to that of exposed workers of Category B.

(3) The undertaking shall ensure, in relation to the exposure of outside workers, that the provisions of Articles 8, 9, 10, 11 and 12 are applied to outside workers.

Control of Radioactive Substances, Nuclear Devices and Irradiating Apparatus

28. (1) This Article applies to practices only.

(2) The undertaking shall -

(a) maintain an up to date inventory of the locations and quantities of radioactive substances, irradiating apparatus and other nuclear devices to which the licence granted to it in accordance with Article 4 applies.

(b) if it has in its possession, handles or deals with unsealed radioactive substances. maintain records of the quantities of all unsealed radioactive substances used by it and of the dates and method of disposal,

(c) ensure that the inventory referred to in subparagraph (a) and the records referred to in subparagraph (b) are readily available for inspection at all reasonable times by the Institute.

(d) when required by the Institute, provide to the Institute copies of the inventory referred to in subparagraph (a) and the records referred to in subparagraph (b), and

(e) retain the inventory referred to in subparagraph (a) for at least 2 years from the date of disposal of the items listed in it or, if those items are disposed of on different dates, the last date on which such an item is disposed of.

(3) The undertaking shall ensure that -

(a) radioactive substances, nuclear devices and irradiating apparatus are clearly labelled as such at all times, and

(b) when not in use, radioactive substances are segregated from non-radioactive substances and kept in secure and safe storage.

(4) The undertaking shall take whatever steps are appropriate to prevent leakage of any radioactive substance from its container or other measures for that protection as far as is practicable.

(5) The undertaking shall ensure, in the case of radioactive substances, that -

(a) suitable tests are carried out to detect leakage of any radioactive substance from its container at least once every 2 years or more frequently if recommended by the manufacturer or supplier or if the Institute directs it to do so,

(b) in the case of suspected damage to any container or other protection, a leakage test is undertaken immediately; if the removed activity is in excess of 200 Bq. use of the radioactive substance shall be discontinued forthwith, and

(c) a suitable record of every test is made and retained until such time as the radioactive substance involved has been disposed of or a further record is made in respect of that radioactive substance and that such records are available for inspection by the Institute.

Duties of Exposed and Outside Workers, Apprentices, Students and Outside Undertakings

29. (1) An exposed worker, outside worker, apprentice or student shall -

(a) not knowingly expose himself or herself or any other person to ionising radiation to an extent greater than is reasonably necessary for the purpose of his or her work, and shall exercise reasonable care while carrying out such work,

(b) make full and proper use of any personal protective equipment provided,

(c) forthwith report to the undertaking any defect he or she discovers in any such equipment, and

(d) notify the undertaking of any suspected exposure likely to cause a breach of any dose limit specified in Schedule 2 or any other unusual occurrence causing or likely to cause exposure in excess of such a limit.

(2) (a) An outside undertaking shall ensure that each outside worker employed by it is provided with an individual radiation passbook which shall be non-transferable and in which there shall be entered the particulars specified in Schedule 4.

(b) A self-employed outside worker shall furnish himself or herself with a radiation passbook which shall be non-transferable and in which there shall be entered the particulars specified in Schedule 4.

(c) An outside undertaking or a self-employed outside worker shall make suitable arrangements to ensure that the particulars entered in the radiation passbook concerned are kept up to date.

(d) A reference in this Article to a radiation passbook is a reference to such a book that is made available to the outside undertaking or self-employed outside worker concerned by the Institute on request being made of it in that behalf.

(3) An outside worker shall -

(a) take reasonable care of the radiation passbook provided or made available to him or her, and, in case he or she is an employed outside worker, if it is lost, report the loss forthwith to the outside undertaking,

(b) not misuse the radiation passbook provided or made available to him or her or falsify or attempt to falsify any of the information contained in it,

(c) in case he or she is an employed outside worker, return the radiation passbook to the outside undertaking immediately on ceasing to be employed or retained by that undertaking or when the radiation passbook is full and requires renewal, and

(d) make the radiation passbook available to the undertaking on whose premises he or she carries out services.

(4) Where an outside worker who has lost a passbook subsequently finds it, he or she shall, in case he or she is an employed outside worker, forthwith report its finding to the outside undertaking concerned and return that passbook to the undertaking.

Part 6

WORK ACTIVITIES INVOLVING NATURAL RADIATION SOURCES

Identification of Work Activities Involving Significant Exposure to Radon

30. (1) To determine if a workplace is one to which this Order applies by virtue of Article 3(2)(a), an employer or self employed person who is responsible for a workplace falling within subparagraph (a), (b) or (c) of paragraph (2) shall measure the radon concentrations in that workplace on being directed to do so by the Institute.

(2) The workplaces referred to in paragraph (1) are -

(a) all underground workplaces, including mines and show caves,

(b) above ground workplaces in High Radon Areas,

(c) other workplaces which may be identified by the Institute as being liable to have radon concentrations in excess of 400 Bq m^3, averaged over a minimum period of 3 months.

(3) The radon measurements referred to in paragraph (1) shall be carried out -

(a) by an approved radon measurement laboratory, and

(b) in accordance with the criteria specified in the direction concerned given by the Institute under paragraph (1).

(4) The results of the radon measurements referred to in paragraph (1) shall be submitted to the Institute within 6 months from the date of the direction concerned being given to the employer or self-employed person or within such other period as the Institute may specify in the direction.

Remedial Measures

31. (1) If the result of any of the radon measurements referred to in Article 30 (1) exceeds 400 B qm^{-3} averaged over a minimum period of 3 months, the undertaking shall evaluate whether remedial measures to reduce the radon concentration should be taken having regard to such guidelines as may be issued by the Institute for the purposes of the Order in this regard.

(2) If the evaluation referred to in paragraph (1) shows that the taking of remedial measures is justified, the undertaking shall take the measures as soon as practicable.

(3) Following the taking of remedial measures pursuant to paragraph (2), the undertaking shall carry out further radon measurements to determine whether the radon concentration in the workplace has been reduced below 400 Bq m^{-3}, averaged over a minimum period of 3 months.

(4) The undertaking shall submit to the Institute particulars of any remedial measures taken pursuant to paragraph (2) and the result of the radon measurements referred to in paragraph (3).

Identification of Work Activities Involving Significant Exposure to Natural Radiation Sources Other Than Radon

32. (1) To determine if a workplace is one to which this Order applies by virtue of Article 3(2)(b), an employer or self-employed person who is responsible for a workplace where elevated levels of naturally occurring radionuclides may be present, such as in the oil and gas industries, metal smelting or in sectors involving the manufacture or use of thoriated products, shall investigate the extent of any exposure of workers or members of the public on being directed to do so by the Institute.

(2) The investigation referred to in paragraph (1) shall be carried out in accordance with methods specified in the direction concerned given by the Institute.

(3) The result of the investigation referred to in paragraph (1) shall be submitted to the Institute within 6 months from the date of the direction concerned being given to the employer or self-employed person or within such other period as the Institute may specify in the direction.

Protection of Air Crew against exposure to cosmic radiation

33. (1) Each air operator and each undertaking in the State which operates an aircraft shall evaluate the extent of the exposure of air crew from cosmic radiation in accordance with such guidelines as may be issued by the Institute for the purposes of the Order in this regard.

(2) The air operator or undertaking referred to in paragraph (1) shall submit a written report in relation to the evaluation referred to in that paragraph to the Institute within -

(a) in case it holds an air operator's certificate which was in force immediately before the commencement of this Order, 1 year from that commencement.

(b) in case it holds an air operator's certificate which was granted on or after the commencement of this Order, 3 months from the making of the evaluation.

(3) If the result of the evaluation referred to in paragraph (1) shows that air crew are liable to be subject to exposure to cosmic radiation in excess of 1 mSv in a period of 12 months, the air operator or undertaking referred to in paragraph (1) shall -

(a) assess the exposures of that air crew by methods that have been approved of by the Institute prior to the assessment being carried out,

(b) keep records relating to the assessment referred to in subparagraph (a) in a manner specified by the Institute,

(c) at the request of any member of the air crew concerned make available to that member a copy of any dose record kept for the purposes of subparagraph (b) in relation to that member,

(d) provide the Institute with summaries of all such current dose records relating to that year within 3 months of the end of each calendar year,

(e) inform that air crew of the health risks involved in their work.

(4) An air operator or an undertaking referred to in paragraph (1) shall organise the working schedules of air crew liable to receive an exposure to cosmic radiation in excess of 6 mSv in a period of 12 months with a view to reducing their exposures.

(5) An air operator or an undertaking referred to in paragraph (1) whereby female air crew are liable to receive an exposure to cosmic radiation in excess of 1mSv in a period of 12 months shall apply the provisions of Article 11 relating to the obligations of an undertaking.

Part 7

RADIATION PROTECTION OF THE POPULATION FOR PRACTICES IN NORMAL CIRCUMSTANCES

Protection of the Public

34. (1) An undertaking shall take such measures as are necessary to ensure the best possible protection of the population having regard to the provisions of Articles 8, 9 and 10 and the fundamental principles governing operational protection of the population.

(2) The undertaking shall provide a statement in writing to the Institute upon being requested to do so by it, of the measures it is taking for that purpose.

(3) For the purposes of this Order, "operational protection of the population" means, in normal circumstances, all arrangements and surveys for detecting and eliminating the factors which, in the course of any operation involving exposure to ionising radiation, are liable to create a risk of exposure to members of the public in excess of 1 mSv in a period of 12 months.

(4) Where relevant to a practice, the Institute shall, before granting a licence in respect of the practice or amending any condition attached to such a licence and as a condition for doing either of those things -

(a) require the undertaking to submit to the Institute for examination and approval, from the point of view of radiation protection, plans for installations involving an exposure risk and for the proposed siting of such installations,

(b) require the undertaking not to accept into service any additional or replacement installations unless the Institute has been satisfied that adequate protection has been provided against any exposure or radioactive contamination liable to extend beyond the site perimeter, taking into account, if relevant, demographic, meteorological, geological, hydrological and ecological conditions, and

(c) require the undertaking to submit to the Institute for examination and approval plans for the discharge of radioactive effluents.

(5) The undertaking shall ensure that a practice in respect of which a licence has been granted is carried on in accordance with the principles of health protection of the population as they relate to radiation protection and in particular shall do the following things within its installation -

(a) achieve and maintain an optimal level of protection of the environment and the population,

(b) check the effectiveness of technical devices for protecting the environment and the population,

(c) operate such equipment and follow such procedures as are necessary for measuring and assessing, as appropriate, exposure and radioactive contamination of the environment and the population, and

(d) undertake regular calibration of measuring instruments and regular checking that they are serviceable and being correctly used.

(6) The undertaking shall ensure that, in discharging its obligations under paragraphs (1), (3), (4) and (5), it receives the advice and support of the radiation protection adviser.

Estimates of Population Doses

35. (1) (a) The Institute shall make estimates from time to time of the dose received by the population from practices in relation to which licences have been granted.

(b) Whenever and so often as the Institute gives a direction to it in that behalf, the undertaking shall make realistic as possible estimates of the doses received by the population as a result of any practice carried on by it. Such estimates shall include estimates of the doses to reference groups in all places where such groups may occur.

(2) The dose estimates referred to in paragraph (1)(b) shall, taking into account the radiological risks, include -

(a) assessment of the doses due to external radiation indicating, where appropriate, the quality of the radiation in question,

(b) assessment of the intake of radionuclides indicating the nature of the radionuclides and, where necessary, their physical and chemical status and the determination of the activity and concentrations of those radionuclides,

(c) assessment of the doses that the reference groups of the population are liable to receive and specification of the characteristics of those groups.

(3) The undertaking shall submit the estimates referred to in paragraph (1)(b) to the Institute to enable it to make estimates of the dose referred to in paragraph (1)(a).

(4) The Institute shall keep records relating to the dose estimates referred to in paragraph (1)(b) including measurements of external exposure, estimates of radioactive intakes and contamination as well as the results of assessments of

doses received by reference groups and by the population.

Part 8

INTERVENTION AND EMERGENCY PREPAREDNESS

Intervention Principles

36. (1) This Article applies to interventions in cases of radiological emergencies or in cases of lasting exposure resulting from the after effects of a radiological emergency or a past or old work practice or work activity.

(2) The implementation and extent of any intervention shall be considered in conformity with the following principles -

(a) intervention shall be undertaken only if the reduction in detriment due to radiation is sufficient to justify the harm and costs, including social costs, of the intervention,

(b) the form, scale and duration of the intervention shall be optimised so that the benefits of the reduction in health detriment less the detriment associated with the intervention, will be maximised,

(c) dose limits specified in Schedule 2 shall not apply to intervention,

(d) such intervention levels as are determined by the Institute from time to time shall be regarded as indications as to the situations in which intervention is appropriate, and

(e) in cases of long term exposure to which Article 40 applies, the dose limits specified in Schedule 2 should normally be appropriate for workers involved in interventions.

(3) Where the intervention is necessary in respect of a particular radiological emergency, the undertaking shall comply with the provisions of subparagraphs (b) to (e) of paragraph (2) after consultation with the Institute on the intervention measures considered appropriate and in accordance with any guidance given to it by the Institute in relation to that matter.

Intervention Preparation and Plans

37. (1) This Article applies to emergencies arising from events taking place either inside or outside the country.

(2) In the case of a practice in relation to which a licence has been granted, the undertaking carrying on the practice shall, when directed in writing by the Institute to do so -

(a) evaluate the possibility of a radiological emergency resulting from the practice which would give rise to significant hazards to members of the public,

(b) evaluate the likely spatial and temporal distribution of the radioactive substances dispersed in the event of such an emergency and the corresponding potential exposures,

(c) prepare an appropriate intervention plan to deal with such an emergency: that intervention plan shall be prepared after consultation with the Institute and the local authority within whose functional area the undertaking carries on the practice, hereafter in this Order referred to as "the relevant local authority",

(d) submit a copy of the intervention plan referred to in subparagraph (c) to the Institute and the relevant local authority as soon as may be after it is prepared,

(e) carry out drills and exercises to test the intervention plan at regular intervals,

(f) ensure that, where appropriate, suitably trained personnel are available for technical, medical and health intervention, and

(g) ensure that any person under the control of the undertaking who may be involved in or may be affected by the intervention plan is given suitable instruction in the arrangements of the plan.

(3) After consultation with any other Minister of the Government who might, in the opinion of the Minister, be concerned in the matter, the Minister shall prepare a plan which shall be known as the "National Emergency Plan for Nuclear Accidents" and is in this Article referred to as "the plan".

(4) The plan shall make provision for radiological emergencies that might occur in connection with practices taking place both inside and outside the country and shall include the following -

(a) provision for the issue and receipt of notifications and other information about radiological emergencies that may occur,

(b) the organisation of appropriate intervention, taking account of the characteristics of the radiological emergency,

(c) the assessment and recording of the consequences of the radiological emergency and of the effectiveness of the intervention,

(d) specifying the duties of Ministers of the Government, local authorities and other public bodies with regard to the measures to be taken under the plan and the procedures to be followed by them for the purposes of co-ordinating those measures,

(e) the procedures for the assessment of technical information related to any emergency or potential emergency,

(f) the criteria for evaluating the need for intervention and, if appropriate, procedures for the implementation of countermeasures, and

(g) the procedures for ensuring that the public is kept fully informed of the nature and extent of any risks to which they might be exposed and of any actions taken to minimise or reduce such risks.

(5) The Minister, after consultation with the Institute, shall arrange for the carrying out of drills and exercises to test the plan at suitable intervals and may amend the plan from time to time.

Dealing with Radiological Emergencies

38. (1) An undertaking carrying on a practice shall, immediately upon a radiological emergency arising from the practice, notify the Institute of the emergency. At the same time the undertaking shall inform the local emergency services of the circumstances with respect to the emergency.

(2) In relation to such an emergency, the undertaking shall make an initial provisional assessment of the circumstances surrounding, and the possible consequences of, the emergency and submit a statement in writing of that assessment to the Institute as soon as possible but not later than 24 hours after the commencement of the emergency.

(3) The undertaking shall undertake or assist with any intervention appropriate to the circumstances of the radiological emergency.

(4) The intervention referred to in paragraph (3) shall include, if the situation so requires, intervention related to -

(a) the source, to reduce or stop the direct radiation and emission of radionuclides,

(b) the environment, to reduce the transfer of radioactive substances to individuals, and

(c) individuals, to reduce exposure and organise the treatment of victims.

(5) The person taking the intervention measures under this Article and the local authority or authorities, in whose functional area or areas these measures are being taken, shall co-operate with one another with regard to those measures.

(6) Any plans prepared by local authorities to deal with major emergencies shall include provision for the organisation of the intervention measures which may be required to be taken within their functional areas in the event of a radiological emergency occurring.

Emergency Occupational Exposure

39. (1) The Institute shall prepare and publish guidelines with regard to the maximum level of doses, in excess of those specified in Schedule 2. workers or other persons involved in taking intervention measures ought to be exposed to in taking such measures.

(2) In preparing such guidelines, the Institute shall take account of the technical obligations and health risks associated with the intervention concerned.

(3) An exposure of a worker or other person referred to in paragraph (1) to a dose in excess of the limits indicated in the guidelines prepared under that paragraph may be permitted to save human lives but only if he or she volunteers for such exposure having been fully informed about the risks concerned.

(4) Any person responsible for the organisation of intervention measures shall provide radiological monitoring and medical surveillance for those involved in the taking of the measures.

Intervention in Cases of Lasting Exposure

40. (1) This Article applies to situations leading to lasting exposure resulting from the after-effects of a radiological emergency or a practice which has ceased to be carried on.

(2) Where the lasting exposure is the result of a practice, the undertaking which carries on or, as the case may be, carried on the practice shall, to the extent that it may be necessary, ensure that -

(a) the area concerned is demarcated,

(b) arrangements for the monitoring of exposure are made,

(c) any appropriate intervention is implemented, taking account of the real characteristics of the situation, and

(d) access to or use of land or buildings situated in the demarcated area is regulated.

(3) The undertaking concerned, the Institute and the local authority or authorities in whose functional area or areas the measures and arrangements referred to in paragraph (2) are being taken or made shall co-operate with one another with regard to those measures and arrangements.

Part 9

NOTIFICATIONS, NOTICES AND REVOCATION

Notifications

41. (1) The undertaking shall notify, in each year, the relevant fire officer of the location. nature and amount of all radioactive substances held by it for the time being.

(2) In paragraph (1) "relevant fire officer" means the person designated to receive such a notification by the fire authority (within the meaning of the Fire Services Act, 1981 (No. 30 of 1981)), in whose functional area the practice or work activity concerned is carried on.

(3) If any, loss, larceny or other misappropriation of any radioactive substance, nuclear device or irradiating apparatus held by it occurs, the undertaking shall, immediately after the loss, larceny or misappropriation takes place, notify the Institute of the loss, larceny or misappropriation.

(4) Where an undertaking suspects or has been informed that an occurrence referred to in paragraph (3) has or may have taken place, it shall immediately make an investigation of the matter and submit a report of the investigation to the Institute as soon as possible.

(5) If -

(a) a radioactive substance under the undertaking's control has been released or is likely to have been released into the atmosphere as a gas, aerosol or dust or has been spilled or otherwise released in such manner as to give rise to significant contamination, and

(b) the quantity of radioactive substance involved exceeds 10 times the quantity specified for that substance in Annex I and 100 times the concentration figure specified for that substance in Annex I,

then the undertaking shall, immediately after the release or spillage takes place, notify the Institute of the release or spillage.

Enforcement Notices

42. (1) If an inspector is of the opinion that an undertaking or an air operator has contravened or is contravening a provision of this Order, the inspector may serve on the undertaking or air operator a notice in writing (in this Order referred to as "an enforcement notice") requiring it to do or not to do such things as are specified in the notice for the purpose of ensuring compliance with the provision concerned.

(2) Without prejudice to paragraph (1), an enforcement notice may require the undertaking or air operator concerned to either or both -

(a) cease the carrying on of the practice or work activity concerned,

(b) mitigate or remedy any effects of the contravention concerned.

(3) An enforcement notice shall take effect -

(a) if the notice so provides, immediately upon its being received by the undertaking or air operator concerned (but without prejudice to paragraph 7),

(b) in any other case -

(i) if no appeal under this Article is made against the notice, on the expiration of the period referred to in paragraph (4) or the day specified in the notice on which it is to take effect, whichever is the later, or

(ii) if such an appeal is made -

(I) on the day next following the day on which the appeal is confirmed under paragraph (5) or withdrawn.

or

(II) on the day specified in the notice on which it is to take effect,

whichever is the later.

(4) An undertaking or air operator on which an enforcement notice is served may, within the period of 14 days beginning on the day on which the notice is served

on it, appeal to the appropriate judge of the District Court against the notice.

(5) On the hearing of an appeal under paragraph (4) the court may, as it thinks proper,

(a) confirm the notice unconditionally,

(b) make such modifications to the notice as it considers appropriate and confirm this notice, as so modified, or

(c) cancel the notice.

(6) Notwithstanding that it has been confirmed under paragraph (5), the appropriate judge of the District Court may, on the hearing of the appeal under paragraph (4) in relation to it, if the undertaking or air operator concerned make an application to him or her in that behalf, suspend the operation of an enforcement notice for such period as in the circumstances of the case he or she considers appropriate.

(7) The making of an appeal under paragraph (4) shall not have the effect of suspending the operation of the enforcement notice concerned but the undertaking or air operator concerned may apply to the appropriate judge of the District Court for an order suspending the operation of the notice until the conclusion of the appeal and the court may, on the hearing of such an application, grant or refuse to grant such an order.

(8) An inspector may cancel an enforcement notice served under this Article (other than such a notice that has been confirmed under paragraph (5)).

(9) An inspector may apply to the appropriate judge of the District Court for an order cancelling an enforcement notice that has been confirmed under paragraph (5) and the court shall, on the hearing of the application, unless it sees good reason to the contrary, grant such an order.

(10) In this Article "appropriate judge of the District Court" means the judge of the District Court for the District Court district in which the enforcement order concerned was served.

Revocation

43. (1) The Radiological Protection Act, 1991 (General Control of Radioactive Substances, Nuclear Devices and Irradiating Apparatus) Order, 1993 (S.I. No 151 of 1993), is hereby revoked.

SCHEDULE 1

INFORMATION TO BE PROVIDED IN A LICENCE APPLICATION FOR A PRACTICE OR NOTIFICATION OF A WORK ACTIVITY

Article 6(2)

1. The name and address of the undertaking and a telephone number, fax number or electronic mail address at which it can be contacted at that address.

2. The address of the premises where or from where the practice or work activity is

to be carried on and a telephone number, fax number or electronic mail address at which the undertaking can be contacted at that address.

3. The nature and business of the undertaking.

4. Into which of the following categories the source or sources of ionising radiation concerned fall -

(a) nuclear device/sealed source,

(b) unsealed radioactive substance,

(c) irradiating apparatus,

(d) an atmosphere containing short-lived daughters of radon,

(e) cosmic radiation.

5. In the case of subparagraphs (a), (b) and (c) of paragraph 4, the addresses of any premises, other than the address stated under paragraph 2, at which the source or each source of ionising radiation is to be used.

6. In the case of an application for a licence in respect of a practice, the proposed date of commencement of the practice.

7. In the case of a work activity, the date of commencement of the work activity.

8. In the case of an application for a licence in respect of a practice, the following additional information if the Institute requires it:

(a) a description of the work with ionising radiation,

(b) particulars of the sources of ionising radiation,

(c) the quantities of any radioactive substances involved,

(d) the identity of any person engaged in the practice, and

(e) the name of the radiation protection adviser.

SCHEDULE 2

DOSE LIMITS FOR EXPOSED WORKERS, APPRENTICES, STUDENTS AND MEMBERS OF THE PUBLIC

Article 10(1)

Dose Limits for Exposed Workers

1. (1) The limit on effective dose for an exposed worker shall be 20 mSv in a period of 12 months.

(2) Without prejudice to subparagraph (1) -

(a) the limit on equivalent dose for the lens of the eye of such a worker shall be 150 mSv in a period of 12 months,

(b) the limit on equivalent dose for the skin of such a worker shall be 500 mSv in a period of 12 months; this limit shall apply to the dose averaged over any area of 1 cm^2, regardless of the area exposed,

(c) the limit on equivalent dose for the hands, forearms, feet and ankles of such a worker shall be 500 mSv in a period of 12 months.

(3) Notwithstanding subparagraphs (1) and (2), as soon as a pregnant exposed worker informs the undertaking of her condition, the equivalent dose to the child to be born shall be limited to 1 mSv for the remainder of the pregnancy.

Dose Limits for Apprentices and Students

2. (1) The dose limits for an apprentice or student aged 18 years or over who, in the course of his or her studies, is obliged to use sources shall be the same as the dose limits for an exposed worker specified in paragraph 1 of this Schedule.

(2) The limit of effective dose for an apprentice or student aged 16 years or more but less than 18 years who, in the course of his or her studies, is obliged to use sources shall be 6 mSv in a period of 12 months.

(3) Without prejudice to subparagraph (2) -

(a) the limit on equivalent dose for the lens of the eye of an apprentice or student referred to in that subparagraph shall be 50 mSv in a period of 12 months.

(b) the limit on equivalent dose for the skin of such an apprentice or student shall be 150 mSv in a period of 12 months; this limit shall apply to the dose averaged over any area of 1 cm^2 regardless of the area exposed,

(c) the limit on equivalent dose for the hands, forearms, feet and ankles of such an apprentice or student shall be 150 mSv in a period of 12 months.

(4) The dose limits for an apprentice or student to whom subparagraphs (1) and (2) do not apply shall be the same as the dose limits for members of the public specified in paragraph 3.

Dose Limits for Members of the Public

3. (1) The limit on effective dose for a member of the public shall be 1 mSv in a period of 12 months.

(2) Without prejudice to subparagraph (1) -

(a) the limit on equivalent dose for the lens of the eye shall be 15 mSv in a period of 12 months.

(b) the limit on equivalent dose for the skin shall be 50 mSv in a period of 12 months averaged over any 1 cm^2 of skin, regardless of the area exposed.

SCHEDULE 3

INFORMATION TO BE CONTAINED IN A HEALTH RECORD

Article 25(11)

1. The worker's full name, gender, date of birth, permanent address and RSI number.

2. The date of the worker's commencement as a Category A worker in his or her present employment.

3. The date of the last medical examination or health review carried out under this Order in respect of the worker.

4. The results of that last such examination or review.

5. The comments (if any) of the approved medical practitioner as to the worker's fitness to work or as to the conditions to which the worker should be subject.

6. The signature of the approved medical practitioner.

SCHEDULE 4

PARTICULARS TO BE CONTAINED IN A RADIATION PASSBOOK

Article 22(8)(a)

1. Individual serial number.

2. A statement that the passbook has been issued by the Institute.

3. Date of issue of the passbook.

4. Name and address of the outside undertaking.

5. Full name, date of birth, gender and RSI number of the outside worker who will hold the passbook.

6. Date of the last medical review of the outside worker and his or her classification as fit. fit subject to conditions (which shall be specified) or unfit.

7. In respect of each assignment carried out by the outside worker, the following particulars -

   (a) name of the undertaking where the services are carried out,

   (b) period covered by the assignment,

   (c) latest available cumulative annual dose assessment,

   (d) an estimate of the effective dose received by the outside worker,

   (e) in the event of a non-uniform exposure, an estimate of the dose equivalent in the different parts of the body,

   (f) in the event of an internal contamination, an estimate of the effective dose.

SCHEDULE 5

TEXT OF ANNEX I OF COUNCIL DIRECTIVE 96/29/EURATOM

CRITERIA TO BE CONSIDERED FOR THE APPLICATION OF ARTICLE 3

1. A practice may be exempted from the requirement to report without further consideration. In compliance with Article 3 (2) (a) or (b) respectively, if either the quantity or the activity concentration, as appropriate, of the relevant radionuclides does not exceed the values in column 2 or 3 of Table A.

2. The basic criteria for the calculation of the values in Table A, for the application of exemption for practices, are as follows:

   (a) the radiological risks to individuals caused by the exempted practice are sufficiently low as to be of no regulatory concern; and

   (b) the collective radiological impact of the exempted practice is sufficiently low as to be of no regulatory concern under the prevailing circumstances; and

   (c) the exempted practice is inherently without radiological significance, with no appreciable likelihood of scenarios that could lead to a failure to meet the criteria in (a) and (b).

3. Exceptionally, as provided in Article 3, individual Member States may decide that a practice may be exempted where appropriate without further consideration, in accordance with the basic criteria, even if the relevant radionuclides deviate from the values in Table A, provided that the following criteria are met in all feasible circumstances:

   (a) the effective dose expected to be incurred by any member of the public due to the exempted practice is of the order of 10 µSv or less in a year;

   and

   (b) either the collective effective dose committed during one year of performance of the practice is no more than about 1 man x Sv or an assessment of the optimization of protection shows that exemption is the optimum option.

4. For radionuclides not listed in Table A, the competent authority shall assign appropriate values for the quantities and concentrations of activity per unit mass where the need arises. Values thus assigned shall be complementary to those in Table A.

5. The values laid down in Table A apply to the total inventory of radioactive substances held by a person or undertaking as part of a specific practice at any point in time.

6. Nuclides carrying the suffix '+' or 'sec' in Table A represent parent nuclides in equilibrium with their correspondent daughter nuclides as listed in Table B. In this case the values given in Table A refer to the parent nuclide alone, but already take account of the daughter nuclide(s) present.

7. In all other cases of mixtures of more than one nuclide, the requirement for reporting may be waived if the sum of the ratios for each nuclide of the total amount present divided by the value listed in Table A is less than or equal to 1. This summation rule also applies to activity concentrations where the various

nuclides concerned are contained in the same matrix.

TABLE A

Nuclide	Quantity (Bq)	Concentration (kBq/kg)
H-3	10^9	10^6
Be-7	10^7	10^3
C-14	10^7	10^4
O-15	10^9	10^2
F-18	10^6	10
Na-22	10^6	10
Na-24	10^5	10
Si-31	10^6	10^3
P-32	10^5	10^3
P-33	10^8	10^5
S-35	10^8	10^5
Cl-36	10^6	10^4
Cl-38	10^5	10
Ar-37	10^8	10^6
Ar-41	10^9	10^2
K-40	10^6	10^2
K-42	10^6	10^2
K-43	10^6	10
Ca-45	10^7	10^4
Ca-47	10^6	10
Sc-46	10^6	10
Sc-47	10^6	10^2
Sc-48	10^5	10
V-48	10^5	10
Cr-51	10^7	10^3
Mn-51	10^5	10
Mn-52	10^5	10
Mn-52m	10^5	10
Mn-53	10^9	10^4
Mn-54	10^6	10
Mn-56	10^5	10
Fe-52	10^6	10
Fe-55	10^6	10^4
Fe-59	10^6	10
Co-55	10^6	10

Co-56	10^5	10
Co-57	10^6	10^2
Co-58	10^6	10
Co-58m	10^7	10^4
Co-60	10^5	10
Co-60m	10^6	10^3
Co-61	10^6	10^2
Co-62m	10^5	10
Ni-59	10^8	10^4
Ni-63	10^8	10^5
Ni-65	10^6	10
Cu-64	10^6	10^2
Zn-65	10^6	10
Zn-69	10^6	10^4
Zn-69m	10^6	10^2
Ga-72	10^5	10
Ge-71	10^8	10^4
As-73	10^7	10^3
As-74	10^6	10
As-76	10^5	10^2
As-77	10^6	10^3
Se-75	10^6	10^2
Br-82	10^6	10
Kr-74	10^9	10^2
Kr-76	10^9	10^2
Kr-77	10^9	10^2
Kr-79	10^5	10^3
Kr-81	10^7	10^4
Kr-83m	10^{12}	10^5
Kr-85	10^4	10^5
Kr-85m	10^{10}	10^3
Kr-87	10^9	10^2
Kr-88	10^9	10^2
Rb-86	10^5	10^2
Sr-85	10^6	10^2
Sr-85m	10^7	10^2
Sr-87m	10^6	10^2
Sr-89	10^6	10^3
Sr-90+	10^4	10^2
Sr-91	10^5	10
Sr-92	10^6	10

Y-90	10^5	10^3
Y-91	10^6	10^3
Y-91m	10^6	10^2
Y-92	10^5	10^2
Y-93	10^5	10^2
Zr-93 +	10^7	10^3
Zr-95	10^6	10
Zr-97 +	10^5	10
Nb-93m	10^7	10^4
Nb-94	10^6	10
Nb-95	10^6	10
Nb-97	10^6	10
Nb-98	10^5	10
Mo-90	10^6	10
Mo-93	10^8	10^3
Mo-99	10^6	10^2
Mo-101	10^6	10
Tc-96	10^6	10
Tc-96m	10^7	10^3
Tc-97	10^8	10^3
Tc-97m	10^7	10^3
Tc-99	10^7	10^4
Tc-99m	10^7	10^2
Ru-97	10^7	10^2
Ru-103	10^6	10^2
Ru-105	10^6	10
Ru-106 +	10^5	10^2
Rh-103m	10^8	10^4
Rh-105	10^7	10^2
Pd-103	10^8	10^3
Pd-109	10^6	10^3
Ag-105	10^6	10^2
Ag-108m +	10^6	10
Ag-110m	10^6	10
Ag-111	10^6	10^3
Cd-109	10^6	10^4
Cd-115	10^6	10^2
Cd-115m	10^6	10^3
In-111	10^6	10^2
In-113m	10^6	10^2
In-114m	10^6	10^2

In-115m	10^6	10^2
Sn-113	10^7	10^3
Sn-125	10^5	10^2
Sb-122	10^4	10^2
Sb-124	10^6	10
Sb-125	10^6	10^2
Te-123m	10^7	10^2
Te-125m	10^7	10^3
Te-127	10^6	10^3
Te-127m	10^7	10^3
Te-129	10^6	10^2
Te-129m	10^6	10^3
Te-131	10^5	10^2
Te-131m	10^6	10
Te-132	10^7	10^2
Te-133	10^5	10
Te-133m	10^5	10
Te-134	10^6	10
I-123	10^7	10^2
I-125	10^6	10^3
I-126	10^6	10^2
I-129	10^5	10^2
I-130	10^6	10
I-131	10^6	10^2
I-132	10^5	10
I-133	10^6	10
I-134	10^5	10
I-135	10^6	10
Xe-131m	10^4	10^4
Xe-133	10^4	10^3
Xe-135	10^{10}	10^3
Cs-129	10^5	10^2
Cs-131	10^6	10^3
Cs-132	10^5	10
Cs-134m	10^5	10^3
Cs-134	10^4	10
Cs-135	10^7	10^4
Cs-136	10^5	10
Cs-137+	10^4	10
Cs-138	10^4	10
Ba-131	10^6	10^2

Ba-140 +	10^5	10
La-140	10^5	10
Ce-139	10^6	10^2
Ce-141	10^7	10^2
Ce-143	10^6	10^2
Ce-144 +	10^5	10^2
Pr-142	10^5	10^2
Pr-143	10^6	10^4
Nd-147	10^6	10^2
Nd-149	10^6	10^2
Pm-147	10^7	10^4
Pm-149	10^6	10^3
Sm-151	10^8	10^4
Sm-153	10^6	10^2
Eu-152	10^6	10
Eu-152m	10^6	10^2
Eu-154	10^6	10
Eu-155	10^7	10^2
Gd-153	10^7	10^2
Gd-159	10^6	10^3
Tb-160	10^6	10
Dy-165	10^6	10^2
Dy-166	10^6	10^3
Ho-166	10^5	10^3
Er-169	10^7	10^4
Er-171	10^6	10^2
Tm-170	10^6	10^3
Tm-171	10^8	10^4
Yb-175	10^7	10^3
Lu-177	10^7	10^8
Ta-182	10^4	10
W-181	10^7	10^3
W-185	10^7	10^4
W-187	10^6	10^2
Re-186	10^6	10^3
Re-188	10^5	10^2
Os-185	10^6	10
Os-191	10^7	10^2
Os-191m	10^7	10^3
Os-193	10^6	10^2
Ir-190	10^6	10

Ir-192	10^4	10
Ir-194	10^5	10^2
Pt-191	10^6	10^2
Pt-193m	10^7	10^3
Pt-197	10^6	10^3
Pt-197m	10^6	10^2
Au-198	10^6	10^2
Au-199	10^6	10^2
Hg-197	10^7	10^2
Hg-197m	10^6	10^2
Hg-203	10^5	10^2
Tl-200	10^6	10
Tl-201	10^6	10^2
Tl-202	10^6	10^2
Tl-204	10^4	10^4
Pb-203	10^6	10^2
Pb-210 +	10^4	10
Pb-212 +	10^5	10
Bi-206	10^5	10
Bi-207	10^6	10
Bi-210	10^6	10^3
Bi-212 +	10^5	10
Po-203	10^6	10
Po-205	10^6	10
Po-207	10^6	10
Po-210	10^4	10
At-211	10^7	10^3
Rn-220 +	10^7	10^4
Rn-222 +	10^8	10
Ra-223 +	10^5	10^2
Ra-224 +	10^5	10
Ra-225	10^5	10^2
Ra-226 +	10^4	10
Ra-227	10^6	10^2
Ra-228 +	10^5	10
Ac-228	10^6	10
Th-226 +	10^7	10^3
Th-227	10^4	10
Th-228 +	10^4	1
Th-229 +	10^3	1
Th-230	10^4	1

Th-231	10^7	10^3
Th-232sec	10^3	1
Th-234 +	10^5	10^3
Pa-230	10^6	10
Pa-231	10^3	1
Pa-233	10^7	10^2
U-230 +	10^5	10
U-231	10^7	10^2
U-232 +	10^3	1
U-233	10^4	10
U-234	10^4	10
U-235 +	10^4	10
U-236	10^4	10
U-237	10^6	10^2
U-238 +	10^4	10
U-238sec	10^3	1
U-239	10^6	10^2
U-240	10^7	10^3
U-240 +	10^6	10
Np-237 +	10^3	1
Np-239	10^7	10^2
Np-240	10^6	10
Pu-234	10^7	10^2
Pu-235	10^7	10^2
Pu-236	10^4	10
Pu-237	10^7	10^3
Pu-238	10^4	1
Pu-239	10^4	1
Pu-240	10^3	1
Pu-241	10^5	10^2
Pu-242	10^4	1
Pu-243	10^7	10^3
Pu-244	10^4	1
Am-241	10^4	1
Am-242	10^6	10^3
Am-242m +	10^4	1
Am-243 +	10^3	1
Cm-242	10^5	10^2
Cm-243	10^4	1
Cm-244	10^4	10
Cm-245	10^3	1

Cm-246	10^3	1
Cm-247	10^4	1
Cm-248	10^3	1
Bk-249	10^6	10^3
Cf-246	10^6	10^3
Cf-248	10^4	10
Cf-250	10^4	10
Cf-251	10^3	1
Cf-252	10^4	10
Cf-253	10^5	10^2
Cf-254	10^3	1
Es-253	10^5	10^2
Es-254	10^4	10
Es-254m	10^6	10^2
Fm-254	10^7	10^4
Fm-255	10^6	10^3

TABLE B

List of nuclides in secular equilibrium as referred to in point 6 of this Annex

Parent nuclide	Daughter nuclides
Sr-80 +	Rb-80
Sr-90 +	Y-90
Zr-93 +	Nb-93m
Zr-97 +	Nb-97
Ru-106 +	Rh-106
Ag-108m +	Ag-108
Cs-137 +	Ba-137
Ba-140 +	La-140
Ce-134 +	La-134
Ce-144 +	Pr-144
Pb-210 +	Bi-210, Po-210
Pb-212 +	Bi-212, Tl-208, Po-212
Bi-212 +	Tl-208, Po-212
Rn-220 +	Po-216

Rn-222 +	Po-218, Pb-214, Bi-214, Po-214
Ra-223 +	Rn-219, Po-215, Pb-211, Bi-211, Tl-207
Ra-224 +	Rn-220, Po-216, Pb-212, Bi-212, Tl-208, Po-212
Ra-226 +	Rn-222, Po-218, Pb-214, Bi-214, Pb-210, Bi-210, Po-210, Po-214
Ra-228 +	Ac-228
Th-226 +	Ra-222, Rn-218, Po-214
Th-228 +	Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208, Po-212
Th-229 +	Ra-225, Ac-225, Fr-221, At-217, Bi-213, Po-213, Pb-209
Th-232sec	Ra-228, Ac-228, Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208, Po-212
Th-234 +	Pa-234m
U-230 +	Th-226, Ra-222, Rn-218, Po-214
U-232 +	Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208, Po-212
U-235 +	Th-231
U-238 +	Th-234, Pa-234m
U-238sec	Th-234, Pa-234m, U-234, Th-230, Ra-226, Rn-222, Po-218, Pb-214, Bi-214, Pb-210, Bi-210, Po-210, Po-214
U-240 +	Np-240
Np-237 +	Pa-233
Am-242m +	Am-242
Am-243 +	Np-239

SCHEDULE 6

TEXT OF ANNEX II OF COUNCIL DIRECTIVE 96/29/EURATOM

A. Definitions of terms used in this Annex

Ambient dose equivalent H^* (d): the dose equivalent at a point in a radiation field that would be produced by the corresponding expanded and aligned field in the ICRU sphere at a depth, d, on the radius opposing the direction of the aligned field. The special name for the unit of ambient dose equivalent is sievert (Sv).

Directional dose equivalent H' (d, Ω): the dose equivalent at a point in a radiation field that would be produced by the corresponding expanded field, in the ICRU sphere at a depth, d, on a radius in a specified direction, Ω. The special name for the unit of directional dose equivalent is sievert (Sv).

Expanded and aligned field: a radiation field in which the fluence and its directional and energy distribution are the same as in the expanded field, but the fluence is unidirectional.

Expanded field: a field derived from the actual field, where the fluence and its directional and energy distributions have the same values throughout the volume of interest as in the actual field at the point of reference.

Fluence, Φ: the quotient of dN by da, where dN is the number of particles which enter a sphere of cross-sectional area da:

$$\Phi = \frac{dN}{da}$$

Mean quality factor DŽ: average value of the quality factor at a point in tissue where the absorbed dose is delivered by particles with different L values. It is calculated according to the expression:

$$\bar{Q} = 1/\bar{D} \int_0^{\infty} Q(L)D(L)dL$$

where D(L)dL is the absorbed dose at 10 mm between linear energy transfer L and L + dL; and Q(L) is the corresponding quality factor at the point of interest. The Q-L relationships are given in C.

Personal dose equivalent, $H_p(d)$: the dose equivalent in soft tissues, at an appropriate depth, d, below a specified point in the body. The special name for the unit of personal dose equivalent is sievert (Sv).

Quality factor (Q): a function of linear energy transfer (L) used to weight absorbed does at a point in such a way as to take into account the quality of a radiation.

Radiation weighting factor (w_R): a dimensionless factor used to weight the tissue or organ absorbed dose. The appropriate (w_R) values are given in B.

Tissue or organ absorbed dose (D_T): the quotient of the total energy impatted in a tissue or organ and the mass of that tissue or organ.

Tissue weighting factor (w_T): a dimensionless factor used to weight the equivalent dose in a tissue or organ (T). The appropriate (w_T) values are specified in D.

Unrestricted linear energy transfer (L ∞): a quantity defined as:

$$L_\infty = \frac{dE}{dt}$$

where dE is the mean energy lost by a particle of energy E in traversing a distance dl in water. In this Directive L ∞ is denoted by L.

ICRU sphere: a body introduced by the International Commission on Radiation Units (ICRU) to approximate the human body as regards energy absorption from ionizing radiation; it consists of a 30 cm diameter tissue equivalent sphere with a density of 1 g cm^{-3} and a mass composition of 76.2% oxygen, 11.1% carbon. 10.1% hydrogen and 2.6% nitrogen.

B. Values of radiation weighting factor, w_R

Values of radiation weighting factor, w_R, depend on the type and quality of the external radiation field or on the type and quality of the radiation emitted by an internally deposited radionuclide.

When the radiation field is composed of types and energies with different values of w_R, the absorbed dose must be subdivided into blocks, each with its own value of w_R and added to give the total equivalent dose. Alternatively, it may be expressed as a continuous distribution in energy where each element of absorbed dose from the energy element between E and E + dE is multiplied by the value of w_R from the relevant entry in the Table below.

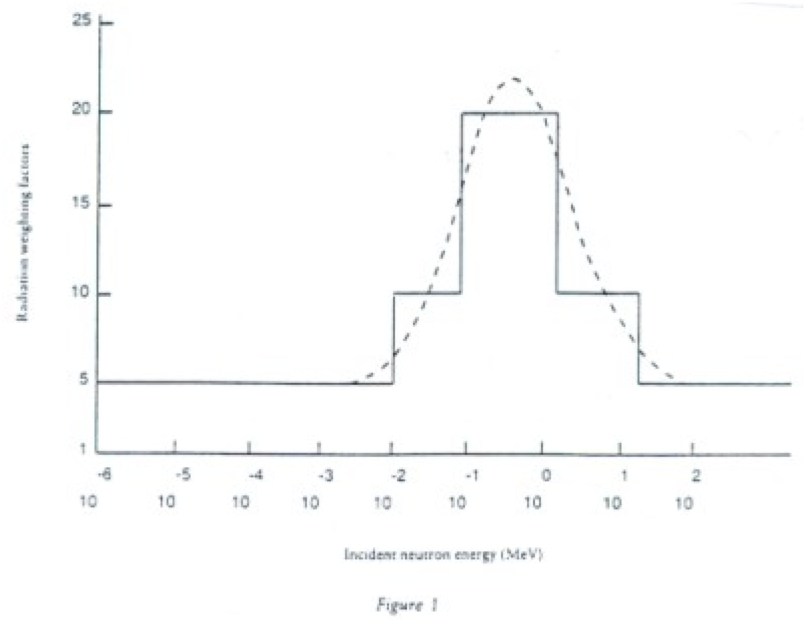
Type and energy range	Radiation weighting factor, w_R
Photons, all energies	1
Electrons and muons, all energies	1
Neutrons, energy < 10 keV	5
10 keV to 100 keV	10
> 100 keV to 2 MeV	20
> 2 MeV to 20 MeV	10
> 20 MeV	5
Protons, other than recoil protons, energy > 2 MeV	5
Alpha particles, fission fragments, heavy nuclei	20

In calculations involving neutrons, difficulties may arise in applying step function values. In these cases it may be preferable to use the continuous function described by the following mathematical relationship:

$$w_R = 5 + 17e^{-(\ln(2E))2/6}$$

where E is the neutron energy in MeV.

A direct comparison of the two approaches is given, in Figure 1.



Incident neutron energy (MeV)

Figure 1

Radiation weighting factors for neutrons. The smooth curve is to be treated as an approximation

For radiation types and energy which are not included in the table, an approximation of w_R may be obtained by calculating the mean quality factor Q at a depth of 10 mm in a ICRU sphere.

C. Relationship between the quality factor, Q(L), and unrestricted linear energy transfer, L

Unrestricted linear energy transfer, L in water (keV μm^{-1})	Q(L)
≤ 10	1
10-100	0,32L - 2,2
≥ 100	$300/\sqrt{L}$

D. Values of tissue weighting factor, W_T (*)

Values of tissue weighting factor, W_T, are shown below:

Tissue or organ	Tissue weighting factors, W_T
Gonads	0,20
Bone marrow (red)	0,12

Colon	0,12
Lung	0,12
Stomach	0,12
Bladder	0,05
Breast	0,05
Liver	0,05
Oesophagus	0,05
Thyroid	0,05
Skin	0,01
Bone surface	0,01
Remainder	0,05(**) (***)

E. Operational quantities for external radiation

Operational quantities for external radiation are used for individual monitoring for radiation protection purposes:

1. Individual monitoring:

   Personal dose equivalent H_p (d),

   d: depth in mm in the body.

2. Area monitoring:

   ambient dose equivalent $H^{(*)}$ (d),

   directional dose equivalent H' (d,Ω),

   d: depth in mm under the surface of the sphere given in A,

   Ω: angle of incidence.

3. For strongly penetrating radiation a depth of 10 mm, for weakly penetrating radiation a depth of 0,07 mm for the skin and 3 mm for the eye is recommended.

SCHEDULE 7

TEXT OF ANNEX III OF COUNCIL DIRECTIVE 96/29/EURATOM

A. Throughout the Directive, unless otherwise specified, requirements on doses apply to the sum of the relevant doses from external exposure in a specified period and the relevant 50-year committed doses (up to age 70 for children) from intakes in the same period. The specified period is that given in Articles 9 and 13 in relation to the dose limits.

In general the effective dose E incurred by an individual in the group of age g will be determined according to the following formula:

$$E = E_{external} + \sum_{j} h(g)_{j,ing} J_{j,ing} + \sum_{j} h(g)_{j,inh} J_{j,inh}$$

Where $E_{external}$ is the relevant effective dose from external exposure: $h(g)_{lung}$ and $h(g)_{lanh}$ are the committed effective dose per unit-intake for ingested or inhaled radionuclide j (Sv/Bq) by an individual in the group of age g; J_{lung} and J_{lanh} respectively are the relevant intake via ingestion or inhalation of the radionuclide j (Bq).

B. Except for radon progeny and thoron progeny, values of the committed effective dose for unit intake for ingestion and inhalation are given for members of the public and for apprentices and students aged between 16 and 18 years in Tables (A) and (B) to this Annex.

Except for radon progeny and thoron progeny, values of the committed effective dose for unit intake for ingestion and inhalation are given for exposed workers and for apprentices and students aged 18 years or more in Table (C) to this Annex.

For exposure of members of the public, Table (A) for ingestion includes values corresponding to different gut transfer factors f_1 for infants and for older persons. Also for exposure of members of the public, Table (B) for inhalation includes values for different lung retention types with appropriate f_1 values for the component of the intake cleared to the gastrointestinal tract. If information is available on these parameters, the appropriate value shall be used; if not, the most restrictive value shall be used. For occupational exposure, Table (C) includes values for ingestion corresponding to different gut transfer factors f_1 and values for inhalation for different lung retention types with appropriate f_1 values for the component of the intake cleared to the gastrointestinal tract.

Table (D) presents gut transfer factors f_1 by element and compounds for workers and where appropriate members of the public for intake by ingestion. Table (E) presents lung absorption types and gut transfer factors f_1, also by element and compounds and also for exposed workers and for apprentices and students aged 18 years or more, for intake by inhalation.

For members of the public the lung absorption types and gut transfer factors f_1, shall take into account the chemical form of the element on the basis of available international guidance. In general, if no information is available on these parameters, the most conservative value should be used.

C. For radon progeny and thoron progeny the following conventional conversion factors apply, effective dose per unit potential alpha-energy exposure (Sv per $J.h.m.^{-3}$):

Radon at home:	1,1
Radon at work:	1,4
Thoron at work:	0,5

Potential alpha energy (of radon progeny and thoron progeny): The total alpha energy ultimately emitted during the decay of radon progeny and thoron progeny through the decay chain, up to but not including ^{210}Pb for progeny of ^{222}Rn and up to stable ^{208}Pb for progeny of ^{220}Rn. The unit is J (Joule). For the exposure to a given concentration for a given time the unit is J.h.m.$^{-3}$.

D. Tables:

(A) Ingestion dose coefficients for members of the public.

(B) Inhalation dose coefficients for members of the public.

(C) Inhalation and ingestion dose coefficients for workers.

(D) Values for f_1 for the calculation of ingestion dose coefficients.

(E) Lung absorption types and f_1 values for chemical forms of the elements for the calculation of inhalation dose coefficients.

TABLE (A)

Committed effective dose per unit intake via ingestion (Sv Bq^{-1}) for members of the public

Nuclide	Physical half-life	Age ≤ 1 a		Age	1—2 a	2—7 a	7—12 a	12—17 a	< 17 a
		f_1 for g ≤ 1 a	h(g)	f_1 for g > 1 a	h(g)	h(g)	h(g)	h(g)	h(g)
Hydrogen									
Tritiated water	12,3 a	1,000	6,4 10^{-11}	1,000	4,8 10^{-11}	3,1 10^{-11}	2,3 10^{-11}	1,8 10^{-11}	1,8 10^{-11}
OBT	12,3 a	1,000	1,2 10^{-10}	1,000	1,2 10^{-10}	7,3 10^{-11}	5,7 10^{-11}	4,2 10^{-11}	4,2 1^{-11}
Beryllium									
Be-7	53,3 d	0,020	1,8 10^{-10}	0,005	1,3 10^{-10}	7,7 10^{-11}	5,3 10^{-11}	3,5 10^{-11}	2,8 10^{-11}
Be-10	1,60 10^{6} a	0,020	1,4 10^{-8}	0,005	8,0 10^{-9}	4,1 10^{-9}	2,4 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Carbon									
C-11	0,340 h	1,000	2,6 10^{-10}	1,000	1,5 10^{-10}	7,3 10^{-11}	4,3 10^{-11}	3,0 10^{-11}	2,4 10^{-11}
C-14	5,73 10^{3} a	1,000	1,4 10^{-9}	1,000	1,6 10^{-9}	9,9 10^{-10}	8,0 10^{-10}	5,7 10^{-10}	5,8 10^{-10}
Fluorine									
F-18	1,83 h	1,000	5,2	1,000	3,0	1,5	9,1	6,2 10^{-}	4,9 10^{-}

			10^{-10}		10^{-10}	10^{-10}	10^{-11}	11	11
Sodium									
Na-22	2,60 a	1,000	2,1 10^{-8}	1,000	1,5 10^{-8}	8,4 10^{-9}	5,5 10^{-9}	3,7 10^{-9}	3,2 10^{-9}
Na-24	15,0 h	1,000	3,5 10^{-9}	1,000	2,3 10^{-9}	1,2 10^{-9}	7,7 10^{-10}	5,2 10^{-10}	4,3 10^{-10}
Magnesium									
Mg-28	20,9 h	1,000	1,2 10^{-8}	0,500	1,4 10^{-8}	7,4 10^{-9}	4,5 10^{-9}	2,7 10^{-9}	2,2 10^{-9}
Aluminium									
Al-26	7,16 10^{5} a	0,020	3,4 10^{-8}	0,010	2,1 10^{-8}	1,1 10^{-8}	7,1 10^{-9}	4,3 10^{-9}	3,5 10^{-9}
Silicon									
Si-31	2,62 h	0,020	1,9 10^{-9}	0,010	1,0 10^{-9}	5,1 10^{-10}	3,0 10^{-10}	1,8 10^{-10}	1,6 10^{-10}
Si-32	4,50 10^{2} a	0,020	7,3 10^{-9}	0,010	4,1 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	7,0 10^{-10}	5,6 10^{-10}
Phosphorus									
P-32	14,3 d	1,000	3,1 10^{-8}	0,800	1,9 10^{-8}	9,4 10^{-9}	5,3 10^{-9}	3,1 10^{-9}	2,4 10^{-9}
P-33	25,4 d	1,000	2,7 10^{-9}	0,800	1,8 10^{-9}	9,1 10^{-10}	5,3 10^{-10}	3,1 10^{-10}	2,4 10^{-10}
Sulphur									
S-35 (inorganic)	87,4 d	1,000	1,3 10^{-9}	1,000	8,7 10^{-10}	4,4 10^{-10}	2,7 10^{-10}	1,6 10^{-10}	1,3 10^{-10}
S-35	87,4 d	1,000	7,7 10^{-9}	1,000	5,4 10^{-9}	2,7 10^{-9}	1,6 10^{-9}	9,5 10^{-10}	7,7 10^{-10}
(organic)									
Chlorine									
Cl-36	3,01 10^{5} a	1,000	9,8 10^{-9}	1,000	6,3 10^{-9}	3,2 10^{-9}	1,9 10^{-9}	1,2 10^{-9}	9,3 10^{-10}
Cl-38	0,620 h	1,000	1,4 10^{-9}	1,000	7,7 10^{-10}	3,8 10^{-10}	2,2 10^{-10}	1,5 10^{-10}	1,2 10^{-10}

Cl-39	0,927 h	1,000	9,7 10^{-10}	1,000	5,5 10^{-10}	2,7 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	8,5 10^{-11}
Potassium									
K-40	1,28 10^{9} a	1,000	6,2 10^{-8}	1,000	4,2 10^{-8}	2,1 10^{-8}	1,3 10^{-8}	7,6 10^{-9}	6,2 10^{-9}
K-42	12,4 h	1,000	5,1 10^{-9}	1,000	3,0 10^{-9}	1,5 10^{-9}	8,6 10^{-10}	5,4 10^{-10}	4,3 10^{-10}
K-43	22,6 h	1,000	2,3 10^{-9}	1,000	1,4 10^{-9}	7,6 10^{-10}	4,7 10^{-10}	3,0 10^{-10}	2,5 10^{-10}
K-44	0,369 h	1,000	1,0 10^{-9}	1,000	5,5 10^{-10}	2,7 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	8,4 10^{-11}
K-45	0,333 h	1,000	6,2 10^{-10}	1,000	3,5 10^{-10}	1,7 10^{-10}	9,9 10^{-11}	6,8 10^{-11}	5,4 10^{-11}
Calcium[a]									
Ca-41	1,40 10^{5} a	0,600	1,2 10^{-9}	0,300	5,2 10^{-10}	3,9 10^{-10}	4,8 10^{-10}	5,0 10^{-10}	1,9 10^{-10}
Ca-45	163 d	0,600	1,1 10^{-8}	0,300	4,9 10^{-9}	2,6 10^{-9}	1,8 10^{-9}	1,3 10^{-9}	7,1 10^{-10}
Ca-47	4,53 d	0,600	1,3 10^{-8}	0,300	9,3 10^{-9}	4,9 10^{-9}	3,0 10^{-9}	1,8 10^{-9}	1,6 10^{-9}
Scandium									
Sc-43	3,89 h	0,001	1,8 10^{-9}	1,0 10^{-4}	1,2 10^{-9}	6,1 10^{-10}	3,7 10^{-10}	2,3 10^{-10}	1,9 10^{-10}
Sc-44	3,93 h	0,001	3,5 10^{-9}	1,0 10^{-4}	2,2 10^{-9}	1,2 10^{-9}	7,1 10^{-10}	4,4 10^{-10}	3,5 10^{-10}
Sc-44m	2,44 d	0,001	2,4 10^{-8}	1,0 10^{-4}	1,6 10^{-8}	8,3 10^{-9}	5,1 10^{-9}	3,1 10^{-9}	2,4 10^{-9}
Sc-46	83,8 d	0,001	1,1 10^{-8}	1,0 10^{-4}	7,9 10^{-9}	4,4 10^{-9}	2,9 10^{-9}	1,8 10^{-9}	1,5 10^{-9}
Sc-47	3,35 d	0,001	6,1 10^{-9}	1,0 10^{-4}	3,9 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	6,8 10^{-10}	5,4 10^{-10}
Sc-48	1,82 d	0,001	1,3 10^{-8}	1,0 10^{-4}	9,3 10^{-9}	5,1 10^{-9}	3,3 10^{-9}	2,1 10^{-9}	1,7 10^{-9}
Sc-49	0,956 h	0,001	1,0 10^{-9}	1,0 10^{-4}	5,7 10^{-10}	2,8 10^{-10}	1,6 10^{-10}	1,0 10^{-10}	8,2 10^{-11}

Titanium									
Ti-44	47,3 a	0,020	5,5 10^{-8}	0,010	3,1 10^{-8}	1,7 10^{-8}	1,1 10^{-8}	6,9 10^{-9}	5,8 10^{-9}
Ti-45	3,08 h	0,020	1,6 10^{-9}	0,010	9,8 10^{-10}	5,0 10^{-10}	3,1 10^{-10}	1,9 10^{-10}	1,5 10^{-10}
Vanadium									
V-47	0,543 h	0,020	7,3 10^{-10}	0,010	4,1 10^{-10}	2,0 10^{-10}	1,2 10^{-10}	8,0 10^{-11}	6,3 10^{-11}
V-48	16,2 d	0,020	1,5 10^{-8}	0,010	1,1 10^{-8}	5,9 10^{-9}	3,9 10^{-9}	2,5 10^{-9}	2,0 10^{-9}
V-49	330 d	0,020	2,2 10^{-10}	0,010	1,4 10^{-10}	6,9 10^{-11}	4,0 10^{-11}	2,3 10^{-11}	1,8 10^{-11}
Chromium									
Cr-48	23,0 h	0,200	1,4 10^{-9}	0,100	9,9 10^{-10}	5,7 10^{-10}	3,8 10^{-10}	2,5 10^{-10}	2,0 10^{-10}
		0,020	1,4 10^{-9}	0,010	9,9 10^{-10}	5,7 10^{-10}	3,8 10^{-10}	2,5 10^{-10}	2,0 10^{-10}
Cr-49	0,702 h	0,200	6,8 10^{-10}	0,100	3,9 10^{-10}	2,0 10^{-10}	1,1 10^{-10}	7,7 10^{-11}	6, 1 10^{-11}
		0,020	6,8 10^{-10}	0,010	3,9 10^{-10}	2,0 10^{-10}	1,1 10^{-10}	7,7 10^{-11}	6,1 10^{-11}
Cr-51	27,7 d	0,200	3,5 10^{-10}	0,100	2,3 10^{-10}	1,2 10^{-10}	7,8 10^{-11}	4,8 10^{-11}	3,8 10^{-11}
		0,020	3,3 10^{-10}	0,010	2,2 10^{-10}	1,2 10^{-10}	7,5 10^{-11}	4,6 10^{-11}	3,7 10^{-11}
Manganese									
Mn-51	0,770 h	0,200	1,1 10^{-9}	0,100	6,1 10^{-10}	3,0 10^{-10}	1,8 10^{-10}	1,2 10^{-10}	9,3 10^{-11}
Mn-52	5,59 d	0,200	1,2 10^{-8}	0,100	8,8 10^{-9}	5,1 10^{-9}	3,4 10^{-9}	2,2 10^{-9}	1,8 10^{-9}
Mn-52m	0,352 h	0,200	7,8 10^{-10}	0,100	4,4 10^{-10}	2,2 10^{-10}	1,3 10^{-10}	8,8 10^{-11}	6,9 10^{-11}
Mn-53	3,70 10^{6} a	0,200	4,1 10^{-10}	0,100	2,2 10^{-10}	1,1 10^{-10}	6,5 10^{-11}	3,7 10^{-11}	3,0 10^{-11}
Mn-54	312 d	0,200	5,4	0,100	3,1	1,9	1,3	8,7 10-	7,1 10-

			10^{-9}		10^{-9}	10^{-9}	10^{-9}	10	10
Mn-56	2,58 h	0,200	2,7 10^{-9}	0,100	1,7 10^{-9}	8,5 10^{-10}	5,1 10^{-10}	3,2 10^{-10}	2,5 10^{-10}
Iron(b)									
Fe-52	8,28 h	0,600	1,3 10^{-8}	0,100	9,1 10^{-9}	4,6 10^{-9}	2,8 10^{-9}	1,7 10^{-9}	1,4 10^{-9}
Fe-55	2,70 a	0,600	7,6 10^{-9}	0,100	2,4 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	7,7 10^{-10}	3,3 10^{-10}
Fe-59	44,5 d	0,600	3,9 10^{-8}	0,100	1,3 10^{-8}	7,5 10^{-9}	4,7 10^{-9}	3,1 10^{-9}	1,8 10^{-9}
Fe-60	1,00 10^{5} a	0,600	7,9 10^{-7}	0,100	2,7 10^{-7}	2,7 10^{-7}	2,5 10^{-7}	2,3 10^{-7}	1,1 10^{-7}
Cobalt(b)									
Co-55	17,5 h	0,600	6,0 10^{-9}	0,100	5,5 10^{-9}	2,9 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	1,0 10^{-9}
Co-56	78,7 d	0,600	2,5 10^{-8}	0,100	1,5 10^{-8}	8,8 10^{-9}	5,8 10^{-9}	3,8 10^{-9}	2,5 10^{-9}
Co-57	271 d	0,600	2,9 10^{-9}	0,100	1,6 10^{-9}	8,9 10^{-10}	5,8 10^{-10}	3,7 10^{-10}	2,1 10^{-10}
Co-58	70,8 d	0,600	7,3 10^{-9}	0,100	4,4 10^{-9}	2,6 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	7,4 10^{-10}
Co-58m	9,15 h	0,600	2,0 10^{-10}	0,100	1,5 10^{-10}	7,8 10^{-11}	4,7 10^{-11}	2,8 10^{-11}	2,4 10^{-11}
Co-60	5,27 a	0,600	5,4 10^{-8}	0,100	2,7 10^{-8}	1,7 10^{-8}	1,1 10^{-8}	7,9 10^{-9}	3,4 10^{-9}
Co-60m	0,174 h	0,600	2,2 10^{-11}	0,100	1,2 10^{-11}	5,7 10^{-12}	3,2 10^{-12}	2,2 10^{-12}	1,7 10^{-12}
Co-61	1,65 h	0,600	8,2 10^{-10}	0,100	5,1 10^{-10}	2,5 10^{-10}	1,4 10^{-10}	9,2 10^{-11}	7,4 10^{-11}
Co-62m	0,232 h	0,600	5,3 10^{-10}	0,100	3,0 10^{-10}	1,5 10^{-10}	8,7 10^{-11}	6,0 10^{-11}	4,7 10^{-11}
Nickel									
Ni-56	6,10 d	0,100	5,3 10^{-9}	0,050	4,0 10^{-9}	2,3 10^{-9}	1,6 10^{-9}	1,1 10^{-9}	8,6 10^{-10}
Ni-57	1,50 d	0,100	6,8 10^{-9}	0,050	4,9 10^{-9}	2,7 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	8,7 10^{-10}

Ni-59	7,50 10^{4} a	0,100	6,4 10^{-10}	0,050	3,4 10^{-10}	1,9 10^{-10}	1,1 10^{-10}	7,3 10^{-11}	6,3 10^{-11}
Ni-63	96,0 a	0,100	1,6 10^{-9}	0,050	8,4 10^{-10}	4,6 10^{-10}	2,8 10^{-10}	1,8 10^{-10}	1,5 10^{-10}
Ni-65	2,52 h	0,100	2,1 10^{-9}	0,050	1,3 10^{-9}	6,3 10^{-10}	3,8 10^{-10}	2,3 10^{-10}	1,8 10^{-10}
Ni-66	2,27 d	0,100	3,3 10^{-8}	0,050	2,2 10^{-8}	1,1 10^{-8}	6,6 10^{-9}	3,7 10^{-9}	3,0 10^{-9}
Copper									
Cu-60	0,387 h	1,000	7,0 10^{-10}	0,500	4,2 10^{-10}	2,2 10^{-10}	1,3 10^{-10}	8,9 10^{-11}	7,0 10^{-11}
Cu-61	3,41 h	1,000	7,1 10^{-10}	0,500	7,5 10^{-10}	3,9 10^{-10}	2,3 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
Cu-64	12,7 h	1,000	5,2 10^{-10}	0,500	8,3 10^{-10}	4,2 10^{-10}	2,5 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
Cu-67	2,58 d	1,000	2,1 10^{-9}	0,500	2,4 10^{-9}	1,2 10^{-9}	7,2 10^{-10}	4,2 10^{-10}	3,4 10^{-10}
Zinc									
Zn-62	9,26 h	1,000	4,2 10^{-9}	0,500	6,5 10^{-9}	3,3 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	9,4 10^{-10}
Zn-63	0,635 h	1,000	8,7 10^{-10}	0,500	5,2 10^{-10}	2,6 10^{-10}	1,5 10^{-10}	1,0 10^{-10}	7,9 10^{-11}
Zn-65	244 d	1,000	3,6 10^{-8}	0,500	1,6 10^{-8}	9,7 10^{-9}	6,4 10^{-9}	4,5 10^{-9}	3,9 10^{-9}
Zn-69	0,950 h	1,000	3,5 10^{-10}	0,500	2,2 10^{-10}	1,1 10^{-10}	6,0 10^{-11}	3,9 10^{-11}	3,1 10^{-11}
Zn-69m	13,8 h	1,000	1,3 10^{-9}	0,500	2,3 10^{-9}	1,2 10^{-9}	7,0 10^{-10}	4,1 10^{-10}	3,3 10^{-10}
Zn-71m	3,92 h	1,000	1,4 10^{-9}	0,500	1,5 10^{-9}	7,8 10^{-10}	4,8 10^{-10}	3,0 10^{-10}	2,4 10^{-10}
Zn-72	1,94 d	1,000	8,7 10^{-9}	0,500	8,6 10^{-9}	4,5 10^{-9}	2,8 10^{-9}	1,7 10^{-9}	1,4 10^{-9}
Gallium									
Ga-65	0,253 h	0,010	4,3 10^{-10}	0,001	2,4 10^{-10}	1,2 10^{-10}	6,9 10^{-11}	4,7 10^{-11}	3,7 10^{-11}
Ga-66	9,40 h	0,010	1,2	0,001	7,9	4,0	2,5	1,5 10^{-}	1,2 10^{-}

			10^{-8}		10^{-9}	10^{-9}	10^{-9}	9	9
Ga-67	3,26 d	0,010	1,8 10^{-9}	0,001	1,2 10^{-9}	6,4 10^{-10}	4,0 10^{-10}	2,4 10^{-10}	1,9 10^{-10}
Ga-68	1,13 h	0,010	1,2 10^{-9}	0,001	6,7 10^{-10}	3,4 10^{-10}	2,0 10^{-10}	1,3 10^{-10}	1,0 10^{-10}
Ga-70	0,353 h	0,010	3,9 10^{-10}	0,001	2,2 10^{-10}	1,0 10^{-10}	5,9 10^{-11}	4,0 10^{-11}	3,1 10^{-11}
Ga-72	14,1 h	0,010	1,0 10^{-8}	0,001	6,8 10^{-9}	3,6 10^{-9}	2,2 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Ga-73	4,91 h	0,010	3,0 10^{-9}	0,001	1,9 10^{-9}	9,3 10^{-10}	5,5 10^{-10}	3,3 10^{-10}	2,6 1^{-10}

Germanium

Ge-66	2,27 h	1,000	8,3 10^{-10}	1,000	5,3 10^{-10}	2,9 10^{-10}	1,9 10^{-10}	1,3 10^{-10}	1,0 10^{-10}
Ge-67	0,312 h	1,000	7,7 10^{-10}	1,000	4,2 10^{-10}	2,1 10^{-10}	1,2 10^{-10}	8,2 10^{-11}	6,5 10^{-11}
Ge-68	288 d	1,000	1,2 10^{-8}	1,100	8,0 10^{-9}	4,2 10^{-9}	2,6 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Ge-69	1,63 d	1,000	2,0 10^{-9}	1,000	1,3 10^{-9}	7,1 10^{-10}	4,6 10^{-10}	3,0 10^{-10}	2,4 10^{-10}
Ge-71	11,8 d	1,000	1,2 10^{-10}	1,000	7,8 10^{-11}	4,0 10^{-11}	2,4 10^{-11}	2,5 10^{-11}	1,2 10^{-11}
Ge-75	1,38 h	1,000	5,5 10^{-10}	1,000	3,1 10^{-10}	1,5 10^{-10}	8,7 10^{-11}	5,9 10^{-11}	4,6 10^{-11}
Ge-77	11,3 h	1,000	3,0 10^{-9}	1,000	1,8 10^{-9}	9,9 10^{-10}	6,2 10^{-10}	4,1 10^{-10}	3,3 10^{-10}
Ge-78	1,45 h	1,000	1,2 10^{-9}	1,000	7,0 10^{-10}	3,6 10^{-10}	2,2 10^{-10}	1,5 10^{-10}	1,2 10^{-10}

Arsenic

As-69	0,253 h	1,000	6,6 10^{-10}	0,500	3,7 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	7,2 10^{-11}	5,7 10^{-11}
As-70	0,876 h	1,000	1,2 10^{-9}	0,500	7,8 10^{-10}	4,1 10^{-10}	2,5 10^{-10}	1,7 10^{-10}	1,3 10^{-10}
As-71	2,70 d	1,000	2,8 10^{-9}	0,500	2,8 10^{-9}	1,5 10^{-9}	9,3 10^{-10}	5,7 10^{-10}	4,6 10^{-10}
As-72	1,08 d	1,000	1,1	0,500	1,2	6,3	3,8	2,3 10^{-}	1,8 10^{-}

			10^{-8}		10^{-8}	10^{-9}	10^{-9}	9	9
As-73	80,3 d	1,000	2,6 10^{-9}	0,500	1,9 10^{-9}	9,3 10^{-10}	5,6 10^{-10}	3,2 10^{-10}	2,6 10^{-10}
As-74	17,8 d	1,000	1,0 10^{-8}	0,500	8,2 10^{-9}	4,3 10^{-9}	2,6 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
As-76	1,10 d	1,000	1,0 10^{-8}	0,500	1,1 10^{-8}	5,8 10^{-9}	3,4 10^{-9}	2,0 10^{-9}	1,6 10^{-9}
As-77	1,62 d	1,000	2,7 10^{-9}	0,500	2,9 10^{-9}	1,5 10^{-9}	8,7 10^{-10}	5,0 10^{-10}	4,0 10^{-10}
As-78	1,51 h	1,000	2,0 10^{-9}	0,500	1,4 10^{-9}	7,0 10^{-10}	4,1 10^{-10}	2,7 10^{-10}	2,1 10^{-10}
Selenium									
Se-70	0,683 h	1,000	1,0 10^{-9}	0,800	7,1 10^{-10}	3,6 10^{-10}	2,2 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
Se-73	7,15 h	1,000	1,6 10^{-9}	0,800	1,4 10^{-9}	7,4 10^{-10}	4,8 10^{-10}	2,5 10^{-10}	2,1 10^{-10}
Se-73m	0,650 h	1,000	2,6 10^{-10}	0,800	1,8 10^{-10}	9,5 10^{-11}	5,9 10^{-11}	3,5 10^{-11}	2,8 10^{-11}
Se-75	120 d	1,000	2,0 10^{-8}	0,800	1,3 10^{-8}	8,3 10^{-9}	6,0 10^{-9}	3,1 10^{-9}	2,6 10^{-9}
Se-79	6,50 10^{4} a	1,000	4,1 10^{-8}	0,800	2,8 10^{-8}	1,9 10^{-8}	1,4 10^{-8}	4,1 10^{-9}	2,9 10^{-9}
Se-81	0,308 h	1,000	3,4 10^{-10}	0,800	1,9 10^{-10}	9,0 10^{-11}	5,1 10^{-11}	3,4 10^{-11}	2,7 10^{-11}
Se-81m	0,954 h	1,000	6,0 10^{-10}	0,800	3,7 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	6,7 10^{-11}	5,3 10^{-11}
Se-83	0,375 h	1,000	4,6 10^{-10}	0,800	2,9 10^{-10}	1,5 10^{-10}	8,7 10^{-11}	5,9 10^{-11}	4,7 10^{-11}
Bromine									
Br-74	0,422 h	1,000	9,0 10^{-10}	1,000	5,2 10^{-10}	2,6 10^{-10}	1,5 10^{-10}	1,1 10^{-10}	8,4 10^{-11}
Br-74m	0,691 h	1,000	1,5 10^{-9}	1,000	8,5 10^{-10}	4,3 10^{-10}	2,5 10^{-10}	1,7 10^{-10}	1,4 10^{-10}
Br-75	1,63 h	1,000	8,5 10^{-10}	1,000	4,9 10^{-10}	2,5 10^{-10}	1,5 10^{-10}	9,9 10^{-11}	7,9 10^{-11}
Br-76	16,2 h	1,000	4,2	1,000	2,7	1,4	8,7	5,6 10^{-}	4,6 10^{-}

			10^{-9}		10^{-9}	10^{-9}	10^{-10}	10	10
Br-77	2,33 d	1,000	6,3 10^{-10}	1,000	4,4 10^{-10}	2,5 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	9,6 10^{-11}
Br-80	0,290 h	1,000	3,9 10^{-10}	1,000	2,1 10^{-10}	1,0 10^{-10}	5,8 10^{-11}	3,9 10^{-11}	3,1 10^{-11}
Br-80m	4,42 h	1,000	1,4 10^{-9}	1,000	8,0 10^{-10}	3,9 10^{-10}	2,3 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
Br-82	1,47 d	1,000	3,7 10^{-9}	1,000	2,6 10^{-9}	1,5 10^{-9}	9,5 10^{-10}	6,4 10^{-10}	5,4 10^{-10}
Br-83	2,39 h	1,000	5,3 10^{-10}	1,000	3,0 10^{-10}	1,4 10^{-10}	8,3 10^{-11}	5,5 10^{-11}	4,3 10^{-11}
Br-84	0,530 h	1,000	1,0 10^{-9}	1,000	5,8 10^{-10}	2,8 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	8,8 10^{-11}
Rubidium									
Rb-79	0,382 h	1,000	5,7 10^{-10}	1,000	3,2 10^{-10}	1,6 10^{-10}	9,2 10^{-11}	6,3 10^{-11}	5,0 10^{-11}
Rb-81	4,58 h	1,000	5,4 10^{-10}	1,000	3,2 10^{-10}	1,6 10^{-10}	1,0 10^{-10}	6,7 10^{-11}	5,4 10^{-11}
Rb-81m	0,533 h	1,000	1,1 10^{-10}	1,000	6,2 10^{-11}	3,1 10^{-11}	1,8 10^{-11}	1,2 10^{-11}	9,7 10^{-12}
Rb-82 m	6,20 h	1,000	8,7 10^{-10}	1,000	5,9 10^{-10}	3,4 10^{-10}	2,2 10^{-10}	1,5 10^{-10}	1,3 10^{-10}
Rb-83	86,2 d	1,000	1,1 10^{-8}	1,000	8,4 10^{-9}	4,9 10^{-9}	3,2 10^{-9}	2,2 10^{-9}	1,9 10^{-9}
Rb-84	32,8 d	1,000	2,0 10^{-8}	1,000	1,4 10^{-8}	7,9 10^{-9}	5,0 10^{-9}	3,3 10^{-9}	2,8 10^{-9}
Rb-86	18,7 d	1,000	3,1 10^{-8}	1,000	2,0 10^{-8}	9,9 10^{-9}	5,9 10^{-9}	3,5 10^{-9}	2,8 10^{-9}
Rb-87	4,70 10^{10} a	1,000	1,5 10^{-8}	1,000	1,0 10^{-8}	5,2 10^{-9}	3,1 10^{-9}	1,8 10^{-9}	1,5 10^{-9}
Rb-88	0,297 h	1,000	1,1 10^{-9}	1,000	6,2 10^{-10}	3,0 10^{-10}	1,7 10^{-10}	1,2 10^{-10}	9,0 10^{-11}
Rb-89	0,253 h	1,000	5,4 10^{-10}	1,000	3,0 10^{-10}	1,5 10^{-10}	8,6 10^{-11}	5,9 10^{-11}	4,,7 10^{-11}
Strontium[(a)]									
Sr-80	1,67 h	0,600	3,7	0,300	2,3	1,1	6,5	4,2 10-	3,4 10-

			10^{-9}		10^{-9}	10^{-9}	10^{-10}	10	10
Sr-81	0,425 h	0,600	8,4 10^{-10}	0,300	4,9 10^{-10}	2,4 10^{-10}	1,4 10^{-10}	9,6 10^{-11}	7,7 10^{-11}
Sr-82	25,0 d	0,600	7,2 10^{-8}	0,300	4,1 10^{-8}	2,1 10^{-8}	1,3 10^{-8}	8,7 10^{-9}	6,1 10^{-9}
Sr-83	1,35 d	0,600	3,4 10^{-9}	0,300	2,7 10^{-9}	1,4 10^{-9}	9,1 10^{-10}	5,7 10^{-10}	4,9 10^{-10}
Sr-85	64,8 d	0,600	7,7 10^{-9}	0,300	3,1 10^{-9}	1,7 10^{-9}	1,5 10^{-9}	1,3 10^{-9}	5,6 10^{-10}
Sr-85m	1,16 h	0,600	4,5 10^{-11}	0,300	3,0 10^{-11}	1,7 10^{-11}	1,1 10^{-11}	7,8 10^{-12}	6,1 10^{-12}
Sr-87m	2,80 h	0,600	2,4 10^{-10}	0,300	1,7 10^{-10}	9,0 10^{-11}	5,6 10^{-11}	3,6 10^{-11}	3,0 10^{-11}
Sr-89	50,5 d	0,600	3,6 10^{-8}	0,300	1,8 10^{-8}	8,9 10^{-9}	5,8 10^{-9}	4,0 10^{-9}	2,6 10^{-9}
Sr-90	29,1 a	0,600	2,3 10^{-7}	0,300	7,3 10^{-8}	4,7 10^{-8}	6,0 10^{-8}	8,0 10^{-8}	2,8 10^{-8}
Sr-91	9,50 h	0,600	5,2 10^{-9}	0,300	4,0 10^{-9}	2,1 10^{-9}	1,2 10^{-9}	7,4 10^{-10}	6,5 10^{-10}
Sr-92	2,71 h	0,600	3,4 10^{-9}	0,300	2,7 10^{-9}	1,4 10^{-9}	8,2 10^{-10}	4,8 10^{-10}	4,3 10^{-10}
Yttrium									
Y-86	14,7 h	0,001	7,6 10^{-9}	1,0 10^{-4}	5,2 10^{-9}	2,9 10^{-9}	1,9 10^{-9}	1,2 10^{-9}	9,6 10^{-10}
Y-86m	0,800 h	0,001	4,5 10^{-10}	1,0 10^{-4}	3,1 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	7,1 10^{-11}	5,6 10^{-11}
Y-87	3,35 d	0,001	4,6 10^{-9}	1,0 10^{-4}	3,2 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	7,0 10^{-10}	5,5 10^{-10}
Y-88	107 d	0,001	8,1 10^{-9}	1,0 10^{-4}	6,0 10^{-9}	3,5 10^{-9}	2,4 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Y-90	2,67 d	0,001	3,1 10^{-8}	1,0 10^{-4}	2,0 10^{-8}	1,0 10^{-8}	5,9 10^{-9}	3,3 10^{-9}	2,7 10^{-9}
Y-90m	3,19 h	0,001	1,8 10^{-9}	1,0 10^{-4}	1,2 10^{-9}	6,1 10^{-10}	3,7 10^{-10}	2,2 10^{-10}	1,7 10^{-10}
Y-91	58,5 d	0,001	2,8 10^{-8}	1,0 10^{-4}	1,8 10^{-8}	8,8 10^{-9}	5,2 10^{-9}	2,9 10^{-9}	2,4 10^{-9}
Y-91m	0,828 h	0,001	9,2	1,0 10^{-4}	6,0	3,3	2,1	1,4 10^{-}	1,1 10^{-}

			10^{-11}		10^{-11}	10^{-11}	10^{-11}	11	11
Y-92	3,54 h	0,001	5,9 10^{-9}	1,0 10^{-4}	3,6 10^{-9}	1,8 10^{-9}	1,0 10^{-9}	6,2 10^{-10}	4,9 10^{-10}
Y-93	10,1 h	0,001	1,4 10^{-8}	1,0 10^{-4}	8,5 10^{-9}	4,3 10^{-9}	2,5 10^{-9}	1,4 10^{-9}	1,2 10^{-9}
Y-94	0,318 h	0,001	9,9 10^{-10}	1,0 10^{-4}	5,5 10^{-10}	2,7 10^{-10}	1,5 10^{-10}	1,0 10^{-10}	8,1 10^{-11}
Y-95	0,178 h	0,001	5,7 10^{-10}	1,0 10^{-4}	3,1 10^{-10}	1,5 10^{-10}	8,7 10^{-11}	5,9 10^{-11}	4,6 10^{-11}
Zirconium									
Zr-86	16,5 h	0,020	6,9 10^{-9}	0,010	4,8 10^{-9}	2,7 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	8,6 10^{-10}
Zr-88	83,4 d	0,020	2,8 10^{-9}	0,010	2,0 10^{-9}	1,2 10^{-9}	8,0 10^{-10}	5,4 10^{-10}	4,5 10^{-10}
Zr-89	3,27 d	0,020	6,5 10^{-9}	0,010	4,5 10^{-9}	2,5 10^{-9}	1,6 10^{-9}	9,9 10^{-10}	7,9 10^{-10}
Zr-93	1,53 10^{6} a	0,020	1,2 10^{-9}	0,010	7,6 10^{-10}	5,1 10^{-10}	5,8 10^{-10}	8,6 10^{-10}	1,1 10^{-9}
Zr-95	64,0 d	0,020	8,5 10^{-9}	0,010	5,6 10^{-9}	3,0 10^{-9}	1,9 10^{-9}	1,2 10^{-9}	9,5 10^{-10}
Zr-97	16,9 h	0,020	2,2 10^{-8}	0,010	1,4 10^{-8}	7,3 10^{-9}	4,4 10^{-9}	2,6 10^{-9}	2,1 10^{-9}
Niobium									
Nb-88	0,238 h	0,020	6,7 10^{-10}	0,010	3,8 10^{-10}	1,9 10^{-10}	1,1 10^{-10}	7,9 10^{-11}	6,3 10^{-11}
Nb-89	2,03 h	0,020	3,0 10^{-9}	0,010	2,0 10^{-9}	1,0 10^{-9}	6,0 10^{-10}	3,4 10^{-10}	2,7 10^{-10}
Nb-89	1,10 h	0,020	1,5 10^{-9}	0,010	8,7 10^{-10}	4,4 10^{-10}	2,7 10^{-10}	1,8 10^{-10}	1,4 10^{-10}
Nb-90	14,6 h	0,020	1,1 10^{-8}	0,010	7,2 10^{-9}	3,9 10^{-9}	2,5 10^{-9}	1,6 10^{-9}	1,2 10^{-9}
Nb-93m	13,6 a	0,020	1,5 10^{-9}	0,010	9,1 10^{-10}	4,6 10^{-10}	2,7 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
Nb-94	2,03 10^{4} a	0,020	1,5 10^{-8}	0,010	9,7 10^{-9}	5,3 10^{-9}	3,4 10^{-9}	2,1 10^{-9}	1,7 10^{-9}
Nb-95	35,1 d	0,020	4,6	0,010	3,2	1,8	1,1	7,4 10-	5,8 10-

			10^{-9}		10^{-9}	10^{-9}	10^{-9}	10	10
Nb-95m	3,61 d	0,020	6,4 10^{-9}	0,010	4,1 10^{-9}	2,1 10^{-9}	1,2 10^{-9}	7,1 10^{-10}	5,6 10^{-10}
Nb-96	23,3 h	0,020	9,2 10^{-9}	0,010	6,3 10^{-9}	3,4 10^{-9}	2,2 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Nb-97	1,20 h	0,020	7,7 10^{-10}	0,010	4,5 10^{-10}	2,3 10^{-10}	1,3 10^{-10}	8,7 10^{-11}	6,8 10^{-11}
Nb-98	0,858 h	0,020	1,2 10^{-9}	0,010	7,1 10^{-10}	3,6 10^{-10}	2,2 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
Molybdenum									
Mo-90	5,67 h	1,000	1,7 10^{-9}	1,000	1,2 10^{-9}	6,3 10^{-10}	4,0 10^{-10}	2,7 10^{-10}	2,2 10^{-10}
Mo-93	3,50 10^{3} a	1,000	7,9 10^{-9}	1,000	6,9 10^{-9}	5,0 10^{-9}	4,0 10^{-9}	3,4 10^{-9}	3,1 10^{-9}
Mo-93m	6,85 h	1,000	8,0 10^{-10}	1,000	5,4 10^{-10}	3,1 10^{-10}	2,0 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
Mo-99	2,75 d	1,000	5,5 10^{-9}	1,000	3,5 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	7,6 10^{-10}	6,0 10^{-10}
Mo-101	0,244 h	1,000	4,8 10^{-10}	1,000	2,7 10^{-10}	1,3 10^{-10}	7,6 10^{-11}	5,2 10^{-11}	4,1 10^{-11}
Technetium									
Te-93	2,75 h	1,000	2,7 10^{-10}	0,500	2,5 10^{-10}	1,5 10^{-10}	9,8 10^{-11}	6,8 10^{-11}	5,5 10^{-11}
Tc-93m	0,725 h	1,000	2,0 10^{-10}	0,500	1,3 10^{-10}	7,3 10^{-11}	4,6 10^{-11}	3,2 10^{-11}	2,5 10^{-11}
Tc-94	4,88 h	1,000	1,2 10^{-9}	0,500	1,0 10^{-9}	5,8 10^{-10}	3,7 10^{-10}	2,5 10^{-10}	2,0 10^{-10}
Tc-94m	0,867 h	1,000	1,3 10^{-9}	0,500	6,5 10^{-10}	3,3 10^{-10}	1,9 10^{-10}	1,3 10^{-10}	1,0 10^{-10}
Tc-95	20,0 h	1,000	9,9 10^{-10}	0,500	8,7 10^{-10}	5,0 10^{-10}	3,3 10^{-10}	2,3 10^{-10}	1,8 10^{-10}
Tc-95m	61,0 d	1,000	4,7 10^{-9}	0,500	2,8 10^{-9}	1,6 10^{-9}	1,0 10^{-9}	7,0 10^{-10}	5,6 10^{-10}
Tc-96	4,28 d	1,000	6,7 10^{-9}	0,500	5,1 10^{-9}	3,0 10^{-9}	2,0 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Tc-96m	0,858 h	1,000	1,0	0,500	6,5	3,6	2,3	1,6 10-	1,2 10-

			10^{-10}		10^{-11}	10^{-11}	10^{-11}	11	11
Tc-97	2,60 10^{6} a	1,000	9,9 10^{-10}	0,500	4,9 10^{-10}	2,4 10^{-10}	1,4 10^{-10}	8,8 10^{-1}	6,8 10^{-11}
Tc-97m	87,0 d	1,000	8,7 10^{-9}	0,500	4,1 10^{-9}	2,0 10^{-9}	1,1 10^{-9}	7,0 10^{-10}	5,5 10^{-10}
Tc-98	4,20 10^{6} a	1,000	2,3 10^{-8}	0,500	1,2 10^{-8}	6,1 10^{-9}	3,7 10^{-9}	2,5 10^{-9}	2,0 10^{-9}
Tc-99	2,13 10^{5} a	1,000	1,0 10^{-8}	0,500	4,8 10^{-9}	2,3 10^{-9}	1,3 10^{-9}	8,2 10^{-10}	6,4 10^{-10}
Tc-99m	6,02 h	1,000	2,0 10^{-10}	0,500	1,3 10^{-10}	7,2 10^{-11}	4,3 10^{-11}	2,8 10^{-11}	2,2 10^{-11}
Tc-101	0,237 h	1,000	2,4 10^{-10}	0,500	1,3 10^{-10}	6,1 10^{-11}	3,5 10^{-11}	2,4 10^{-11}	1,9 10^{-11}
Tc-104	0,303 h	1,000	1,0 10^{-9}	0,500	5,3 10^{-10}	2,6 10^{-10}	1,5 10^{-10}	1,0 10^{-10}	8,0 10^{-11}
Ruthenium									
Ru-94	0,863 h	0,100	9,3 10^{-10}	0,050	5,9 10^{-10}	3,1 10^{-10}	1,9 10^{-10}	1,2 10^{-10}	9,4 10^{-11}
Ru-97	2,90 d	0,100	1,2 10^{-9}	0,050	8,5 10^{-10}	4,7 10^{-10}	3,0 10^{-10}	1,9 10^{-10}	1,5 10^{-10}
Ru-103	39,3 d	0,100	7,1 10^{-9}	0,050	4,6 10^{-9}	2,4 10^{-9}	1,5 10^{-9}	9,2 10^{-10}	7,3 10^{-10}
Ru-105	4,44 h	0,100	2,7 10^{-9}	0,050	1,8 10^{-9}	9,1 10^{-10}	5,5 10^{-10}	3,3 10^{-10}	2,6 10^{-10}
Ru-106	1,01 a	0,100	8,4 10^{-8}	0,050	4,9 10^{-8}	2,5 10^{-8}	1,5 10^{-8}	8,6 10^{-9}	7,0 10^{-9}
Rhodium									
Rh-99	16,0 d	0,100	4,2 10^{-9}	0,050	2,9 10^{-9}	1,6 10^{-9}	1,0 10^{-9}	6,5 10^{-10}	5,1 10^{-10}
Rh-99m	4,70 h	0,100	4,9 10^{-10}	0,050	3,5 10^{-10}	2,0 10^{-10}	1,3 10^{-10}	8,3 10^{-11}	6,6 10^{-11}
Rh-100	20,8 h	0,100	4,9 10^{-9}	0,050	3,6 10^{-9}	2,0 10^{-9}	1,4 10^{-9}	8,8 10^{-10}	7,1 10^{-10}
Rh-101	3,20 a	0,100	4,9 10^{-9}	0,050	2,8 10^{-9}	1,6 10^{-9}	1,0 10^{-9}	6,7 10^{-10}	5,5 10^{-10}
Rh-101m	4,34 d	0,100	1,7	0,050	1,2	6,8	4,4	2,8 10-	2,2 10-

			10^{-9}		10^{-9}	10^{-10}	10^{-10}	10	10
Rh-102	2,90 a	0,100	1,9 10^{-8}	0,050	1,0 10^{-8}	6,4 10^{-9}	4,3 10^{-9}	3,0 10^{-9}	2,6 10^{-9}
Rh-102m	207 d	0,100	1,2 10^{-8}	0,050	7,4 10^{-9}	3,9 10^{-9}	2,4 10^{-9}	1,4 10^{-9}	1,2 10^{-9}
Rh-103m	0,935 h	0,100	4,7 10^{-11}	0,050	2,7 10^{-11}	1,3 10^{-11}	7,4 10^{-12}	4,8 10^{-12}	3,8 10^{-12}
Rh-105	1,47 d	0,100	4,0 10^{-9}	0,050	2,7 10^{-9}	1,3 10^{-9}	8,0 10^{-10}	4,6 10^{-10}	3,7 10^{-10}
Rh-106m	2,20 h	0,100	1,4 10^{-9}	0,050	9,7 10^{-10}	5,3 10^{-10}	3,3 10^{-10}	2,0 10^{-10}	1,6 10^{-10}
Rh-107	0,362 h	0,100	2,9 10^{-10}	0,050	1,6 10^{-10}	7,9 10^{-11}	4,5 10^{-11}	3,1 10^{-11}	2,4 10^{-11}
Palladium									
Pd-100	3,63 d	0,050	7,4 10^{-9}	0,005	5,2 10^{-9}	2,9 10^{-9}	1,9 10^{-9}	1,2 10^{-9}	9,4 10^{-10}
Pd-101	8,27 h	0,050	8,2 10^{-10}	0,005	5,7 10^{-10}	3,1 10^{-10}	1,9 10^{-10}	1,2 10^{-10}	9,4 10^{-11}
Pd-103	17,0 d	0,050	2,2 10^{-9}	0,005	1,4 10^{-9}	7,2 10^{-10}	4,3 10^{-10}	2,4 10^{-10}	1,9 10^{-10}
Pd-107	6,50 10^{6} a	0,050	4,4 10^{-10}	0,005	2,8 10^{-10}	1,4 10^{-10}	8,1 10^{-11}	4,6 10^{-11}	3,7 10^{-11}
Pd-109	13,4 h	0,050	6,3 10^{-9}	0,005	4,1 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	6,8 10^{-10}	5,5 10^{-10}
Silver									
Ag-102	0,215 h	0,100	4,2 10^{-10}	0,050	2,4 10^{-10}	1,2 10^{-10}	7,3 10^{-11}	5,0 10^{-11}	4,0 10^{-11}
Ag-103	1,09 h	0,100	4,5 10^{-10}	0,050	2,7 10^{-10}	1,4 10^{-10}	8,3 10^{-11}	5,5 10^{-11}	4,3 10^{-11}
Ag-104	1,15 h	0,100	4,3 10^{-10}	0,050	2,9 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	7,5 10^{-11}	6,0 10^{-11}
Ag-104m	0,558 h	0,100	5,6 10^{-10}	0,050	3,3 10^{-10}	1,7 10^{-10}	1,0 10^{-10}	6,8 10^{-11}	5,4 10^{-11}
Ag-105	41,0 d	0,100	3,9 10^{-9}	0,050	2,5 10^{-9}	1,4 10^{-9}	9,1 10^{-10}	5,9 10^{-10}	4,7 10^{-10}
Ag-106	0,399 h	0,100	3,7	0,050	2,1	1,0	6,0	4,1 10^{-}	3,2 10^{-}

			10^{-10}		10^{-10}	10^{-10}	10^{-11}	11	11
Ag-106m	8,41 d	0,100	9,7 10^{-9}	0,050	6,9 10^{-9}	4,1 10^{-9}	2,8 10^{-9}	1,8 10^{-9}	1,5 10^{-9}
Ag-108m	1,27 10^{2} a	0,100	2,1 10^{-8}	0,050	1,1 10^{-8}	6,5 10^{-9}	4,3 10^{-9}	2,8 10^{-9}	2,3 10^{-9}
Ag-110m	250 d	0,100	2,4 10^{-8}	0,050	1,4 10^{-8}	7,8 10^{-9}	5,2 10^{-9}	3,4 10^{-9}	2,8 10^{-9}
Ag-111	7,45 d	0,100	1,4 10^{-8}	0,050	9,3 10^{-9}	4,6 10^{-9}	2,7 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Ag-112	3,12 h	0,100	4,9 10^{-9}	0,050	3,0 10^{-9}	1,5 10^{-9}	8,9 10^{-10}	5,4 10^{-10}	4,3 10^{-10}
Ag-115	0,333 h	0,100	7,2 10^{-10}	0,050	4,1 10^{-10}	2,0 10^{-10}	1,2 10^{-10}	7,7 10^{-11}	6,0 10^{-11}
Cadmium									
Cd-104	0,961 h	0,100	4,2 10^{-10}	0,050	2,9 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	7,2 10^{-11}	5,4 10^{-11}
Cd-107	6,49 h	0,100	7,1 10^{-10}	0,050	4,6 10^{-10}	2,3 10^{-10}	1,3 10^{-10}	7,8 10^{-11}	6,2 10^{-11}
Cd-109	1,27 a	0,100	2,1 10^{-8}	0,050	9,5 10^{-9}	5,5 10^{-9}	3,5 10^{-9}	2,4 10^{-9}	2,0 10^{-9}
Cd-113	9,30 10^{15} a	0,100	1,0 10^{-7}	0,050	4,8 10^{-8}	3,7 10^{-8}	3,0 10^{-8}	2,6 10^{-8}	2,5 10^{-8}
Cd-113m	13,6 a	0,100	1,2 10^{-7}	0,050	5,6 10^{-8}	3,9 10^{-8}	2,9 10^{-8}	2,4 10^{-8}	2,3 10^{-8}
Cd-115	2,23 d	0,100	1,4 10^{-8}	0,050	9,7 10^{-9}	4,9 10^{-9}	2,9 10^{-9}	1,7 10^{-9}	1,4 10^{-9}
Cd-115m	44,6 d	0,100	4,1 10^{-8}	0,050	1,9 10^{-8}	9,7 10^{-9}	6,9 10^{-9}	4,1 10^{-9}	3,3 10^{-9}
Cd-117	2,49 h	0,100	2,9 10^{-9}	0,050	1,9 10^{-9}	9,5 10^{-10}	5,7 10^{-10}	3,5 10^{-10}	2,8 10^{-10}
Cd-117m	3,36 h	0,100	2,6 10^{-9}	0,050	1,7 10^{-9}	9,0 10^{-10}	5,6 10^{-10}	3,5 10^{-10}	2,8 10^{-10}
Indium									
In-109	4,20 h	0,040	5,2 10^{-10}	0,020	3,6 10^{-10}	2,0 10^{-10}	1,3 10^{-10}	8,2 10^{-11}	6,6 10^{-11}
In-110	4,90 h	0,040	1,5	0,020	1,1	6,5	4,4	3,0 10-	2,4 10-

			10^{-9}		10^{-9}	10^{-10}	10^{-10}	10	10
In-110	1,15 h	0,040	1,1 10^{-9}	0,020	6,4 10^{-10}	3,2 10^{-10}	1,9 10^{-10}	1,3 10^{-10}	1,0 10^{-10}
In-111	2,83 d	0,040	2,4 10^{-9}	0,020	1,7 10^{-9}	9,1 10^{-10}	5,9 10^{-10}	3,7 10^{-10}	2,9 10^{-10}
In-112	0,240 h	0,040	1,2 10^{-10}	0,020	6,7 10^{-11}	3,3 10^{-11}	1,9 10^{-11}	1,3 10^{-11}	1,0 10^{-11}
In-113m	1,66 h	0,040	3,0 10^{-10}	0,020	1,8 10^{-10}	9,3 10^{-11}	6,2 10^{-11}	3,6 10^{-11}	2,8 10^{-11}
In-114m	49,5 d	0,040	5,6 10^{-8}	0,020	3,1 10^{-8}	1,5 10^{-8}	9,0 10^{-9}	5,2 10^{-9}	4,1 10^{-9}
In-115	5,10 10^{15} a	0,040	1,3 10^{-7}	0,020	6,4 10^{-8}	4,8 10^{-8}	4,3 10^{-8}	3,6 10^{-8}	3,2 10^{-8}
In-115m	4,49 h	0,040	9,6 10^{-10}	0,020	6,0 10^{-10}	3,0 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	8,6 10^{-11}
In-116m	0,902 h	0,040	5,8 10^{-10}	0,020	3,6 10^{-10}	1,9 10^{-10}	1,2 10^{-10}	8,0 10^{-11}	6,4 10^{-11}
In-117	0,730 h	0,040	3,3 10^{-10}	0,020	1,9 10^{-10}	9,7 10^{-11}	5,8 10^{-11}	3,9 10^{-11}	3,1 10^{-11}
In-117m	1,94 h	0,040	1,4 10^{-9}	0,020	8,6 10^{-10}	4,3 10^{-10}	2,5 10^{-10}	1,6 10^{-10}	1,2 10^{-10}
In-119m	0,300 h	0,040	5,9 10^{-10}	0,020	3,2 10^{-10}	1,6 10^{-10}	8,8 10^{-11}	6,0 10^{-11}	4,7 10^{-11}
Tin									
Sn-110	4,00 h	0,040	3,5 10^{-9}	0,020	2,3 10^{-9}	1,2 10^{-9}	7,4 10^{-10}	4,4 10^{-10}	3,5 1^{-10}
Sn-111	0,588 h	0,040	2,5 10^{-10}	0,020	1,5 10^{-10}	7,4 10^{-11}	4,4 10^{-11}	3,0 10^{-11}	2,3 10^{-11}
Sn-113	115 d	0,040	7,8 10^{-9}	0,020	5,0 10^{-9}	2,6 10^{-9}	1,6 10^{-9}	9,2 10^{-10}	7,3 10^{-10}
Sn-117m	13,6 d	0,040	7,7 10^{-9}	0,020	5,0 10^{-9}	2,5 10^{-9}	1,5 10^{-9}	8,8 10^{-10}	7,1 10^{-10}
Sn-119m	293 d	0,040	4,1 10^{-9}	0,020	2,5 10^{-9}	1,3 10^{-9}	7,5 10^{-10}	4,3 10^{-10}	3,4 10^{-10}
Sn-121	1,13 d	0,040	2,6 10^{-9}	0,020	1,7 10^{-9}	8,4 10^{-10}	5,0 10^{-10}	2,8 10^{-10}	2,3 10^{-10}
Sn-121m	55,0 a	0,040	4,6	0,020	2,7	1,4	8,2	4,7 10^{-}	3,8 10^{-}

			10^{-9}		10^{-9}	10^{-9}	10^{-10}	10	10
Sn-123	129 d	0,040	2,5 10^{-8}	0,020	1,6 10^{-8}	7,8 10^{-9}	4,6 10^{-9}	2,6 10^{-9}	2,1 10^{-9}
Sn-123m	0,668 h	0,040	4,7 10^{-10}	0,020	2,6 10^{-10}	1,3 10^{-10}	7,3 10^{-11}	4,9 10^{-11}	3,8 10^{-11}
Sn-125	9,64 d	0,040	3,5 10^{-8}	0,020	2,2 10^{-8}	1,1 10^{-8}	6,7 10^{-9}	3,8 10^{-9}	3,1 10^{-9}
Sn-126	1,00 10^{5} a	0,040	5,0 10^{-8}	0,020	3,0 10^{-8}	1,6 10^{-8}	9,8 10^{-9}	5,9 10^{-9}	4,7 10^{-9}
Sn-127	2,10 h	0,040	2,0 10^{-9}	0,020	1,3 10^{-9}	6,6 10^{-10}	4,0 10^{-10}	2,5 10^{-10}	2,0 10^{-10}
Sn-128	0,985 h	0,040	1,6 10^{-9}	0,020	9,7 10^{-10}	4,9 10^{-10}	3,0 10^{-10}	1,9 10^{-10}	1,5 10^{-10}
Antimony									
Sb-115	0,530 h	0,200	2,5 10^{-10}	0,100	1,5 10^{-10}	7,5 10^{-11}	4,5 10^{-11}	3,1 10^{-11}	2,4 10^{-11}
Sb-116	0,263 h	0,200	2,7 10^{-10}	0,100	1,6 10^{-10}	8,0 10^{-11}	4,8 10^{-11}	3,3 10^{-11}	2,6 10^{-11}
Sb-116m	1,00 h	0,200	5,0 10^{-10}	0,100	3,3 10^{-10}	1,9 10^{-10}	1,2 10^{-10}	8,3 10^{-11}	2,7 10^{-11}
Sb-117	2,80 h	0,200	1,6 10^{-10}	0,100	1,0 10^{-10}	5,6 10^{-11}	3,5 10^{-11}	2,2 10^{-11}	1,8 10^{-11}
Sb-118m	5,00 h	0,200	1,3 10^{-9}	0,100	1,0 10^{-9}	5,8 10^{-10}	3,9 10^{-10}	2,6 10^{-10}	2,1 10^{-10}
Sb-119	1,59 d	0,200	8,4 10^{-10}	0,100	5,8 10^{-10}	3,0 10^{-10}	1,8 10^{-10}	1,0 10^{-10}	8,0 10^{-11}
Sb-120	5,76 d	0,200	8,1 10^{-9}	0,100	6,0 10^{-9}	3,5 10^{-9}	2,3 10^{-9}	1,6 10^{-9}	1,2 10^{-9}
Sb-120	0,265 h	0,200	1,7 10^{-10}	0,100	9,4 10^{-11}	4,6 10^{-11}	2,7 10^{-11}	1,8 10^{-11}	1,4 10^{-11}
Sb-122	2,70 d	0,200	1,8 10^{-8}	0,100	1,2 10^{-8}	6,1 10^{-9}	3,7 10^{-9}	2,1 10^{-9}	1,7 10^{-9}
Sb-124	60,2 d	0,200	2,5 10^{-8}	0,100	1,6 10^{-8}	8,4 10^{-9}	5,2 10^{-9}	3,2 10^{-9}	2,5 10^{-9}
Sb-124m	0,337 h	0,200	8,5 10^{-11}	0,100	4,9 10^{-11}	2,5 10^{-11}	1,5 10^{-11}	1,0 10^{-11}	8,0 10^{-12}
Sb-125	2,77 a	0,200	1,1	0,100	6,1	3,4	2,1	1,4 10-	1,1 10-

			10^{-8}		10^{-9}	10^{-9}	10^{-9}	9	9
Sb-126	12,4 d	0,200	2,0 10^{-8}	0,100	1,4 10^{-8}	7,6 10^{-9}	4,9 10^{-9}	3,1 10^{-9}	2,4 10^{-9}
Sb-126m	0,317 h	0,200	3,9 10^{-10}	0,100	2,2 10^{-10}	1,1 10^{-10}	6,6 10^{-11}	4,5 10^{-11}	3,6 10^{-11}
Sb-127	3,85 d	0,200	1,7 10^{-8}	0,100	1,2 10^{-8}	5,9 10^{-9}	3,6 10^{-9}	2,1 10^{-9}	1,7 10^{-9}
Sb-128	9,01 h	0,200	6,3 10^{-9}	0,100	4,5 10^{-9}	2,4 10^{-9}	1,5 10^{-9}	9,5 10^{-10}	7,6 10^{-10}
Sb-128	0,173 h	0,200	3,7 10^{-10}	0,100	2,1 10^{-10}	1,0 10^{-10}	6,0 10^{-11}	4,1 10^{-11}	3,3 10^{-11}
Sb-129	4,32 h	0,200	4,3 10^{-9}	0,100	2,8 10^{-9}	1,5 10^{-9}	8,8 10^{-10}	5,3 10^{-10}	4,2 10^{-10}
Sb-130	0,667 h	0,200	9,1 10^{-10}	0,100	5,4 10^{-10}	2,8 10^{-10}	1,7 10^{-10}	1,2 10^{-10}	9,1 10^{-11}
Sb-131	0,383 h	0,200	1,1 10^{-9}	0,100	7,3 10^{-10}	3,9 10^{-10}	2,1 10^{-10}	1,4 10^{-10}	1,0 10^{-10}
Tellurium									
Te-116	2,49 h	0,600	1,4 10^{-9}	0,300	1,0 10^{-9}	5,5 10^{-10}	3,4 10^{-10}	2,1 10^{-10}	1,7 10^{-10}
Te-121	17,0 d	0,600	3,1 10^{-9}	0,300	2,0 10^{-9}	1,2 10^{-9}	8,0 10^{-10}	5,4 10^{-10}	4,3 10^{-10}
Te-121m	154 d	0,600	2,7 10^{-8}	0,300	1,2 10^{-8}	6,9 10^{-9}	4,2 10^{-9}	2,8 10^{-9}	2,3 10^{-9}
Te-123	1,00 10^{13} a	0,600	2,0 10^{-8}	0,300	9,3 10^{-9}	6,9 10^{-9}	5,4 10^{-9}	4,7 10^{-9}	4,4 10^{-9}
Te-123m	120 d	0,600	1,9 10^{-8}	0,300	8,8 10^{-9}	4,9 10^{-9}	2,8 10^{-9}	1,7 10^{-9}	1,4 10^{-9}
Te-125m	58,0 d	0,600	1,3 10^{-8}	0,300	6,3 10^{-9}	3,3 10^{-9}	1,9 10^{-9}	1,1 10^{-9}	8,7 10^{-10}
Te-127	9,35 h	0,600	1,5 10^{-9}	0,300	1,2 10^{-9}	6,2 10^{-10}	3,6 10^{-10}	2,1 10^{-10}	1,7 10^{-10}
Te-127m	109 d	0,600	4,1 10^{-8}	0,300	1,8 10^{-8}	9,5 10^{-9}	5,2 10^{-9}	3,0 10^{-9}	2,3 10^{-9}
Te-129	1,16 h	0,600	7,5 10^{-10}	0,300	4,4 10^{-10}	2,1 10^{-10}	1,2 10^{-10}	8,0 10^{-11}	6,3 10^{-11}
Te-129m	33,6 d	0,600	4,4	0,300	2,4	1,2	6,6	3,9 10-	3,0 10-

			10^{-8}		10^{-8}	10^{-8}	10^{-9}	9	9
Te-131	0,417 h	0,600	9,0 10^{-10}	0,300	6,6 10^{-10}	3,5 10^{-10}	1,9 10^{-10}	1,2 10^{-10}	8,7 10^{-11}
Te-131m	1,25 d	0,600	2,0 10^{-8}	0,300	1,4 10^{-8}	7,8 10^{-9}	4,3 10^{-9}	2,7 10^{-9}	1,9 10^{-9}
Te-132	3,26 d	0,600	4,8 10^{-8}	0,300	3,0 10^{-8}	1,6 10^{-8}	8,3 10^{-9}	5,3 10^{-9}	3,8 10^{-9}
Te-133	0,207 h	0,600	8,4 10^{-10}	0,300	6,3 10^{-10}	3,3 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	7,2 10^{-11}
Te-133m	0,923 h	0,600	3,1 10^{-9}	0,300	2,4 10^{-9}	1,3 10^{-9}	6,3 10^{-10}	4,1 10^{-10}	2,8 10^{-10}
Te-134	0,696 h	0,600	1,1 10^{-9}	0,300	7,5 10^{-10}	3,9 10^{-10}	2,2 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
Iodine									
I-120	1,35 h	1,000	3,9 10^{-9}	1,000	2,8 10^{-9}	1,4 10^{-9}	7,2 10^{-10}	4,8 10^{-10}	3,4 10^{-10}
I-120m	0,883 h	1,000	2,3 10^{-9}	1,000	1,5 10^{-9}	7,8 10^{-10}	4,2 10^{-10}	2,9 10^{-10}	2,11 10^{-10}
I-121	2,12 h	1,000	6,2 10^{-10}	1,000	5,3 10^{-10}	3,1 10^{-10}	1,7 10^{-10}	1,2 10^{-10}	8,2 10^{-11}
I-123	13,2 h	1,000	2,2 10^{-9}	1,000	1,9 10^{-9}	1,1 10^{-9}	4,9 10^{-10}	3,3 10^{-10}	2,1 10^{-10}
I-124	4,18 d	1,000	1,2 10^{-7}	1,000	1,1 10^{-7}	6,3 10^{-8}	3,1 10^{-8}	2,0 10^{-8}	1,3 10^{-8}
I-125	60,1 d	1,000	5,2 10^{-8}	1,000	5,7 10^{-8}	4,1 10^{-8}	3,1 10^{-8}	2,2 10^{-8}	1,5 10^{-8}
I-126	13,0 d	1,000	2,1 10^{-7}	1,000	2,1 10^{-7}	1,3 10^{-7}	6,8 10^{-8}	4,5 10^{-8}	2,9 10^{-8}
I-128	0,416 h	1,000	5,7 10^{-10}	1,000	3,3 10^{-10}	1,6 10^{-10}	8,9 10^{-11}	6,0 10^{-11}	4,6 10^{-11}
I-129	1,57 10^{7} a	1,000	1,8 10^{-7}	1,000	2,2 10^{-7}	1,7 10^{-7}	1,9 10^{-7}	1,4 10^{-7}	1,1 10^{-7}
I-130	12,4 h	1,000	2,1 10^{-8}	1,000	1,8 10^{-8}	9,8 10^{-9}	4,6 10^{-9}	3,0 10^{-9}	2,0 10^{-9}
I-131	8,04 d	1,000	1,8 10^{-7}	1,000	1,8 10^{-7}	1,0 10^{-7}	5,2 10^{-8}	3,4 10^{-8}	2,2 10^{-8}
I-132	2,30 h	1,000	3,0	1,000	2,4	1,3	6,2	4,1 10-	2,9 10-

			10^{-9}		10^{-9}	10^{-9}	10^{-10}	10	10
I-132m	1,39 h	1,000	2,4 10^{-9}	1,000	2,0 10^{-9}	1,1 10^{-9}	5,0 10^{-10}	3,3 10^{-10}	2,2 10^{-10}
I-133	20,8 h	1,000	4,9 10^{-8}	1,000	4,4 10^{-8}	2,3 10^{-8}	1,0 10^{-8}	6,8 10^{-9}	4,3 10^{-9}
I-134	0,876 h	1,000	1,1 10^{-9}	1,000	7,5 10^{-10}	3,9 10^{-10}	2,1 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
I-135	6,61 h	1,000	1,0 10^{-8}	1,000	8,9 10^{-9}	4,7 10^{-9}	2,2 10^{-9}	1,4 10^{-9}	9,3 10^{-10}
Caesium									
Cs-125	0,750 h	1,000	3,9 10^{-10}	1,000	2,2 10^{-10}	1,1 10^{-10}	6,5 10^{-11}	4,4 10^{-11}	3,5 10^{-11}
Cs-127	6,25 h	1,000	1,8 10^{-10}	1,000	1,2 10^{-10}	6,6 10^{-11}	4,2 10^{-11}	2,9 10^{-11}	2,4 10^{-11}
Cs-129	1,34 d	1,000	4,4 10^{-10}	1,000	3,0 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	7,2 10^{-11}	6,0 10^{-11}
Cs-130	0,498 h	1,000	3,3 10^{-10}	1,000	1,8 10^{-10}	9,0 10^{-11}	5,2 10^{-11}	3,6 10^{-11}	2,8 10^{-11}
Cs-131	9,69 d	1,000	4,6 10^{-10}	1,000	2,9 10^{-10}	1,6 10^{-10}	1,0 10^{-10}	6,9 10^{-11}	5,8 10^{-11}
Cs-132	6,48 d	1,000	2,7 10^{-9}	1,000	1,8 10^{-9}	1,1 10^{-9}	7,7 10^{-10}	5,7 10^{-10}	5,0 10^{-10}
Cs-134	2,06 a	1,000	2,6 10^{-8}	1,000	1,6 10^{-8}	1,3 10^{-8}	1,4 10^{-8}	1,9 10^{-8}	1,9 10^{-8}
Cs-134m	2,90 h	1,000	2,1 10^{-10}	1,000	1,2 10^{-10}	5,9 10^{-11}	3,5 10^{-11}	2,5 10^{-11}	2,0 10^{-11}
Cs-135	2,30 10^{6} a	1,000	4,1 10^{-9}	1,000	2,3 10^{-9}	1,7 10^{-9}	1,7 10^{-9}	2,0 10^{-9}	2,0 10^{-9}
Cs-135m	0,883 h	1,000	1,3 10^{-10}	1,000	8,6 10^{-11}	4,9 10^{-11}	3,2 10^{-11}	2,3 10^{-11}	1,9 10^{-11}
Cs-136	13,1 d	1,000	1,5 10^{-8}	1,000	9,5 10^{-9}	6,1 10^{-9}	4,4 10^{-9}	3,4 10^{-9}	3,0 10^{-9}
Cs-137	30,0 a	1,000	2,1 10^{-8}	1,000	1,2 10^{-8}	9,6 10^{-9}	1,0 10^{-8}	1,3 10^{-8}	1,3 10^{-8}
Cs-138	0,536 h	1,000	1,1 10^{-9}	1,000	5,9 10^{-10}	2,9 10^{-10}	1,7 10^{-10}	1,2 10^{-10}	9,2 10^{-11}

Barium(3)

Ba-126	1,61 h	0,600	2,7 10^{-9}	0,200	1,7 10^{-9}	8,5 10^{-10}	5,0 10^{-10}	3,1 10^{-10}	2,6 10^{-10}
Ba-128	2,43 d	0,600	2,0 10^{-8}	0,200	1,7 10^{-8}	9,0 10^{-9}	5,2 10^{-9}	3,0 10^{-9}	2,7 10^{-9}
Ba-131	11,8 d	0,600	4,2 10^{-9}	0,200	2,6 10^{-9}	1,4 10^{-9}	9,4 10^{-10}	6,2 10^{-10}	4,5 10^{-10}
Ba-131m	0,243 h	0,600	5,8 10^{-11}	0,200	3,2 10^{-11}	1,6 10^{-11}	9,3 10^{-12}	6,3 10^{-12}	4,9 10^{-12}
Ba-133	10,7 a	0,600	2,2 10^{-8}	0,200	6,2 10^{-9}	3,9 10^{-9}	4,6 10^{-9}	7,3 10^{-9}	1,5 10^{-9}
Ba-133m	1,62 d	0,600	4,2 10^{-9}	0,200	3,6 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	5,9 10^{-10}	5,4 10^{-10}
Ba-135m	1,20 d	0,600	3,3 10^{-9}	0,200	2,9 10^{-9}	1,5 10^{-9}	8,5 10^{-10}	4,7 10^{-10}	4,3 10^{-10}
Ba-139	1,38 h	0,600	1,4 10^{-9}	0,200	8,4 10^{-10}	4,1 10^{-10}	2,4 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
Ba-140	12,7 d	0,600	3,2 10^{-8}	0,200	1,8 10^{-8}	9,2 10^{-9}	5,8 10^{-9}	3,7 10^{-9}	2,6 10^{-9}
Ba-141	0,305 h	0,600	7,6 10^{-10}	0,200	4,7 10^{-10}	2,3 10^{-10}	1,3 10^{-10}	8,6 10^{-11}	7,0 10^{-11}
Ba-142	0,177 h	0,600	3,6 10^{-10}	0,200	2,2 10^{-10}	1,1 10^{-10}	6,6 10^{-11}	4,3 10^{-11}	3,5 10^{-11}

Lanthanum

La-131	0,983 h	0,005	3,5 10^{-10}	5,0 10^{-4}	2,1 10^{-10}	1,1 10^{-10}	6,6 10^{-11}	4,4 10^{-11}	3,5 10^{-11}
La-132	4,80 h	0,005	3,8 10^{-9}	5,0 10^{-4}	2,4 10^{-9}	1,3 10^{-9}	7,8 10^{-10}	4,8 10^{-10}	3,9 10^{-10}
La-135	19,5 h	0,005	2,8 10^{-10}	5,0 10^{-4}	1,9 10^{-10}	1,0 10^{-10}	6,4 10^{-11}	3,9 10^{-11}	3,0 10^{-11}
La-137	6,00 10^{-4} a	0,005	1,1 10^{-9}	5,0 10^{-4}	4,5 10^{-10}	2,5 10^{-10}	1,6 10^{-10}	1,0 10^{-10}	8,1 10^{-11}
La-138	1,35 10^{11} a	0,005	1,3 10^{-8}	5,0 10^{-4}	4,6 10^{-9}	2,7 10^{-9}	1,9 10^{-9}	1,3 10^{-9}	1,1 10^{-9}
La-140	1,68 d	0,005	2,0 10^{-8}	5,0 10^{-4}	1,3 10^{-8}	6,8 10^{-9}	4,2 10^{-9}	2,5 10^{-9}	2,0 10^{-9}

La-141	3,93 h	0,005	4,3 10^{-9}	5,0 10^{-4}	2,6 10^{-9}	1,3 10^{-9}	7,6 10^{-10}	4,5 10^{-10}	3,6 10^{-10}
La-142	1,54 h	0,005	1,9 10^{-9}	5,0 10^{-4}	1,1 10^{-9}	5,8 10^{-10}	3,5 10^{-10}	2,3 10^{-10}	1,8 10^{-10}
La-143	0,237 h	0,005	6,9 10^{-10}	5,0 10^{-4}	3,9 10^{-10}	1,9 10^{-10}	1,1 10^{-10}	7,1 10^{-11}	5,6 10^{-11}

Cerium

Ce-134	3,00 d	0,005	2,8 10^{-8}	5,0 10^{-4}	1,8 10^{-8}	9,1 10^{-9}	5,5 10^{-9}	3,2 10^{-9}	2,5 10^{-9}
Ce-135	17,6 h	0,005	7,0 10^{-9}	5,0 10^{-4}	4,7 10^{-9}	2,6 10^{-9}	1,6 10^{-9}	1,0 10^{-9}	7,9 10^{-10}
Ce-137m	9,00 h	0,005	2,6 10^{-10}	5,0 10^{-4}	1,7 10^{-10}	8,8 10^{-11}	5,4 10^{-11}	3,2 10^{11}	2,5 10^{-11}
Ce-137m	1,43 d	0,005	6,1 10^{-9}	5,0 10^{-4}	3,9 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	6,8 10^{-10}	5,4 10^{-10}
Ce-139	138 d	0,005	2,6 10^{-9}	5,0 10^{-4}	1,6 10^{-9}	8,6 10^{-10}	5,4 10^{-10}	3,3 10^{-10}	2,6 10^{-10}
Ce-141	32,5 d	0,005	8,1 10^{-9}	5,0 10^{-4}	5,1 10^{-9}	2,6 10^{-9}	1,5 10^{-9}	8,8 10^{-10}	7,1 10^{-10}
Ce-143	1,38 d	0,005	1,2 10^{-8}	5,0 10^{-4}	8,0 10^{-9}	4,1 10^{-9}	2,4 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Ce-144	284 d	0,005	6,6 10^{-8}	5,0 10^{-4}	3,9 10^{-8}	1,9 10^{-8}	1,1 10^{-8}	6,5 10^{-9}	5,2 10^{-9}

Praseodymium

Pr-136	0,218 h	0,005	3,7 10^{-10}	5,0 10^{-4}	2,1 10^{-10}	1,0 10^{-10}	6,1 10^{-11}	4,2 10^{-11}	3,3 10^{-11}
Pr-137	1,28 h	0,005	4,1 10^{-10}	5,0 10^{-4}	2,5 10^{-10}	1,3 10^{-10}	7,7 10^{-11}	5,0 10^{-11}	4,0 10^{-11}
Pr-138m	2,10 h	0,005	1,0 10^{-9}	5,0 10^{-4}	7,4 10^{-10}	4,1 10^{-10}	2,6 10^{-10}	1,6 10^{-10}	1,3 10^{-10}
Pr-139	4,51 h	0,005	3,2 10^{-10}	5,0 10^{-4}	2,0 10^{-10}	1,1 10^{-10}	6,5 10^{-11}	4,0 10^{-11}	3,1 10^{-11}
Pr-142	19,1 h	0,005	1,5 10^{-8}	5,0 10^{-4}	9,8 10^{-9}	4,9 10^{-9}	2,9 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Pr-142m	0,243 h	0,005	2,0 10^{-10}	5,0 10^{-4}	1,2 10^{-10}	6,2 10^{-11}	3,7 10^{-11}	2,1 10^{11}	1,7 10^{-11}
Pr-143	13,6 d	0,005	1,4	5,0 10^{-4}	8,7	4,3	2,6	1,5 10^{-}	1,2 10^{-}

			10^{-8}		10^{-9}	10^{-9}	10^{-9}	9	9
Pr-144	0,288 h	0,005	6,4 10^{-10}	5,0 10^{-4}	3,5 10^{-10}	1,7 10^{-10}	9,5 10^{-11}	6,5 10^{-11}	5,0 10^{-11}
Pr-145	5,98 h	0,005	4,7 10^{-9}	5,0 10^{-4}	2,9 10^{-9}	1,4 10^{-9}	8,5 10^{-10}	4,9 10^{-10}	3,9 10^{-10}
Pr-147	0,227 h	0,005	3,9 10^{-10}	5,0 10^{-4}	2,2 10^{-10}	1,1 10^{-10}	6,1 10^{-11}	4,2 10^{-11}	3,3 10^{-11}
Neodymium									
Nd-136	0,844 h	0,005	1,0 10^{-9}	5,0 10^{-4}	6,1 10^{-10}	3,1 10^{-10}	1,9 10^{-10}	1,2 10^{-10}	9,9 10^{-11}
Nd-138	5,04 h	0,005	7,2 10^{-9}	5,0 10^{-4}	4,5 10^{-9}	2,3 10^{-9}	1,3 10^{-9}	8,0 10^{-10}	6,4 10^{-10}
Nd-139	0,495 h	0,005	2,1 10^{-10}	5,0 10^{-4}	1,2 10^{-10}	6,3 10^{-11}	3,7 10^{-11}	2,5 10^{-11}	2,0 10^{-11}
Nd-139m	5,50 h	0,005	2,1 10^{-9}	5,0 10^{-4}	1,4 10^{-9}	7,8 10^{-10}	5,0 10^{-10}	3,1 10^{-10}	2,5 10^{-10}
Nd-141	2,49 h	0,005	7,8 10^{-11}	5,0 10^{-4}	5,0 10^{-11}	2,7 10^{-11}	1,6 10^{-11}	1,0 10^{-11}	8,3 10^{-12}
Nd-147	11,0 d	0,005	1,2 10^{-8}	5,0 10^{-4}	7,8 10^{-9}	3,9 10^{-9}	2,3 10^{-9}	1,3 10^{-9}	1,1 10^{-9}
Nd-149	1,73 h	0,005	1,4 10^{-9}	5,0 10^{-4}	8,7 10^{-10}	4,3 10^{-10}	2,6 10^{-10}	1,6 10^{-10}	1,2 10^{-10}
Nd-151	0,207 h	0,005	3,4 10^{-10}	5,0 10^{-4}	2,0 10^{-10}	9,7 10^{-11}	5,7 10^{-11}	3,8 10^{-11}	3,0 10^{-11}
Promethium									
Pm-141	0,348 h	0,005	4,2 10^{-10}	5,0 10^{-4}	2,4 10^{-10}	1,2 10^{-10}	6,8 10^{-11}	4,6 10^{-11}	3,6 10^{-11}
Pm-143	265 d	0,005	1,9 10^{-9}	5,0 10^{-4}	1,2 10^{-9}	6,7 10^{-10}	4,4 10^{-10}	2,9 10^{-10}	2,3 10^{-10}
Pm-144	363 d	0,005	7,6 10^{-9}	5,0 10^{-4}	4,7 10^{-9}	2,7 10^{-9}	1,8 10^{-9}	1,2 10^{-9}	9,7 10^{-10}
Pm-145	17,7 a	0,005	1,5 10^{-9}	5,0 10^{-4}	6,8 10^{-10}	3,7 10^{-10}	2,3 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
Pm-146	5,53 a	0,005	1,0 10^{-8}	5,0 10^{-4}	5,1 10^{-9}	2,8 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	9,0 10^{-10}
Pm-147	2,62 a	0,005	3,6	5,0 10^{-4}	1,9	9,6	5,7	3,2 10-	2,6 10-

			10^{-9}		10^{-9}	10^{-10}	10^{-10}	10	10
Pm-148	5,37 d	0,005	3,0 10^{-4}	5,0 10^{-4}	1,9 10^{-8}	9,7 10^{-9}	5,8 10^{-9}	3,3 10^{-9}	2,7 10^{-9}
Pm-148m	41,3 d	0,005	1,5 10^{-8}	5,0 10^{-4}	1,0 10^{-8}	5,5 10^{-9}	3,5 10^{-9}	2,2 10^{-9}	1,7 10^{-9}
Pm-149	2,21 d	0,005	1,2 10^{-8}	5,0 10^{-4}	7,4 10^{-9}	3,7 10^{-9}	2,2 10^{-9}	1,2 10^{-9}	9,9 10^{-10}
Pm-150	2,68 h	0,005	2,8 10^{-9}	5,0 10^{-4}	1,7 10^{-9}	8,7 10^{-10}	5,2 10^{-10}	3,2 10^{-10}	2,6 10^{-10}
Pm-151	1,18 d	0,005	8,0 10^{-9}	5,0 10^{-4}	5,1 10^{-9}	2,6 10^{-9}	1,6 10^{-9}	9,1 10^{-10}	7,3 10^{-10}
Samarium									
Sm-141	0,170 h	0,005	4,5 10^{-10}	5,0 10^{-4}	2,5 10^{-10}	1,3 10^{-10}	7,3 10^{-11}	5,0 10^{-11}	3,9 10^{-11}
Sm-141m	0,377 h	0,005	7,0 10^{-10}	5,0 10^{-4}	4,0 10^{-10}	2,0 10^{-10}	1,2 10^{-10}	8,2 10^{11}	6,5 10^{-11}
Sm-142	1,21 h	0,005	2,2 10^{-9}	5,0 10^{-4}	1,3 10^{-9}	6,2 10^{-10}	3,6 10^{-10}	2,4 10^{-10}	1,9 10^{-10}
Sm-145	340 d	0,005	2,4 10^{-9}	5,0 10^{-4}	1,4 10^{-9}	7,3 10^{-10}	4,5 10^{-10}	2,7 10^{-10}	2,1 10^{-10}
Sm-146	1,03 10^{8} a	0,005	1,5 10^{-6}	5,0 10^{-4}	1,5 10^{-7}	1,0 10^{-7}	7,0 10^{-8}	5,8 10^{-8}	5,4 10^{-8}
Sm-147	1,06 10^{11} a	0,005	1,4 10^{-6}	5,0 10^{-4}	1,4 10^{-7}	9,2 10^{-8}	6,4 10^{-8}	5,2 10^{-8}	4,9 10^{-8}
Sm-151	90,0 a	0,005	1,5 10^{-9}	5,0 10^{-4}	6,4 10^{-10}	3,3 10^{-10}	2,0 10^{-10}	1,2 10^{-10}	9,8 10^{-11}
Sm-153	1,95 d	0,005	8,4 10^{-9}	5,0 10^{-4}	5,4 10^{-9}	2,7 10^{-9}	1,6 10^{-9}	9,2 10^{-10}	7,4 10^{-10}
Sm-155	0,368 h	0,005	3,6 10^{-10}	5,0 10^{-4}	2,0 10^{-10}	9,7 10^{-11}	5,5 10^{-11}	3,7 10^{-11}	2,9 10^{-11}
Sm-156	9,40 h	0,005	2,8 10^{-9}	5,0 10^{-4}	1,8 10^{-9}	9,0 10^{-10}	5,4 10^{-10}	3,1 10^{-10}	2,5 10^{-10}
Europium									
Eu-145	5,94 d	0,005	5,1 10^{-9}	5,0 10^{-4}	3,7 10^{-9}	2,1 10^{-9}	1,4 10^{-9}	9,4 10^{-10}	7,5 10^{-10}
Eu-146	4,61 d	0,005	8,5	5,0 10^{-4}	6,2	3,6	2,4	1,6 10^{-}	1,3 10^{-}

			10^{-9}		10^{-9}	10^{-9}	10^{-9}	9	9
Eu-147	24,0 d	0,005	3,7 10^{-9}	5,0 10^{-4}	2,5 10^{-9}	1,4 10^{-9}	8,9 10^{-10}	5,6 10^{-10}	4,4 10^{-10}
Eu-148	54,5 d	0,005	8,5 10^{-9}	5,0 10^{-4}	6,0 10^{-9}	3,5 10^{-9}	2,4 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Eu-149	93,1 d	0,005	9,7 10^{-10}	5,0 10^{-4}	6,3 10^{-10}	3,4 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	1,0 10^{-10}
Eu-150	34,2 a	0,005	1,3 10^{-8}	5,0 10^{-4}	5,7 10^{-9}	3,4 10^{-9}	2,3 10^{-9}	1,5 10^{-9}	1,3 10^{-9}
Eu-150	12,6 h	0,005	4,4 10^{-9}	5,0 10^{-4}	2,8 10^{-9}	1,4 10^{-9}	8,2 10^{-10}	4,7 10^{-10}	3,8 10^{-10}
Eu-152	13,3 a	0,005	1,6 10^{-8}	5,0 10^{-4}	7,4 10^{-9}	4,1 10^{-9}	2,6 10^{-9}	1,7 10^{-9}	1,4 10^{-9}
Eu-152m	9,32 h	0,005	5,7 10^{-9}	5,0 10^{-4}	3,6 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	6,2 10^{-10}	5,0 10^{-10}
Eu-154	8,80 a	0,005	2,5 10^{-8}	5,0 10^{-4}	1,2 10^{-8}	6,5 10^{-9}	4,1 10^{-9}	2,5 10^{-9}	2,0 10^{-9}
Eu-155	4,96 a	0,005	4,3 10^{-9}	5,0 10^{-4}	2,2 10^{-9}	1,1 10^{-9}	6,8 10^{-10}	4,0 10^{-10}	3,2 10^{-10}
Eu-156	15,2 d	0,005	2,2 10^{-8}	5,0 10^{-4}	1,5 10^{-8}	7,5 10^{-9}	4,6 10^{-9}	2,7 10^{-9}	2,2 10^{-9}
Eu-157	15,1 h	0,005	6,7 10^{-9}	5,0 10^{-4}	4,3 10^{-9}	2,2 10^{-9}	1,3 10^{-9}	7,5 10^{-10}	6,0 10^{-10}
Eu-158	0,765 h	0,005	1,1 10^{-9}	5,0 10^{-4}	6,2 10^{-10}	3,1 10^{-10}	1,8 10^{-10}	1,2 10^{-10}	9,4 10^{-11}

Gadolinium

Gd-145	0,382 h	0,005	4,5 10^{-10}	5,0 10^{-4}	2,6 10^{-10}	1,3 10^{-10}	8,1 10^{-11}	5,6 10^{-11}	4,4 10^{-11}
Gd-146	48,3 d	0,005	9,4 10^{-9}	5,0 10^{-4}	6,0 10^{-9}	3,2 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	9,6 10^{-10}
Gd-147	1,59 d	0,005	4,5 10^{-9}	5,0 10^{-4}	3,2 10^{-9}	1,8 10^{-9}	1,2 10^{-9}	7,7 10^{-10}	6,1 10^{-10}
Gd-148	93,0 a	0,005	1,7 10^{-6}	5,0 10^{-4}	1,6 10^{-7}	1,1 10^{-7}	7,3 10^{-8}	5,9 10^{-8}	6,6 10^{-8}
Gd-149	9,40 d	0,005	4,0 10^{-9}	5,0 10^{-4}	2,7 10^{-9}	1,5 10^{-9}	9,3 10^{-10}	5,7 10^{-10}	4,5 10^{-10}
Gd-151	120 d	0,005	2,1	5,0 10^{-4}	1,3	6,8	4,2	2,4 10^{-}	2,0 10^{-}

			10^{-9}		10^{-9}	10^{-10}	10^{-10}	10	10
Gd-152	1,08 10^{14} a	0,005	1,2 10^{-6}	5,0 10^{-4}	1,2 10^{-7}	7,7 10^{-8}	5,3 10^{-8}	4,3 10^{-8}	4,1 10^{-8}
Gd-153	242 d	0,005	2,9 10^{-9}	5,0 10^{-4}	1,8 10^{-9}	9,4 10^{-10}	5,8 10^{-10}	3,4 10^{-10}	2,7 10^{-10}
Gd-159	18,6 h	0,005	5,7 10^{-9}	5,0 10^{-4}	3,6 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	6,2 10^{-10}	4,9 10^{-10}
Terbium									
Tb-147	1,65 h	0,005	1,5 10^{-9}	5,0 10^{-4}	1,0 10^{-9}	5,4 10^{-10}	3,3 10^{-10}	2,0 10^{-10}	1,6 10^{-10}
Tb-149	4,15 h	0,005	2,4 10^{-9}	5,0 10^{-4}	1,5 10^{-9}	8,0 10^{-10}	5,0 10^{-10}	3,1 10^{-10}	2,5 10^{-10}
Tb-150	3,27 h	0,005	2,5 10^{-9}	5,0 10^{-4}	1,6 10^{-9}	8,3 10^{-10}	5,1 10^{-10}	3,2 10^{-10}	2,5 10^{-10}
Tb-151	17,6 h	0,005	2,7 10^{-9}	5,0 10^{-4}	1,9 10^{-9}	1,0 10^{-9}	6,7 10^{-10}	4,2 10^{-10}	3,4 10^{-10}
Tb-153	2,34 d	0,005	2,3 10^{-9}	5,0 10^{-4}	1,5 10^{-9}	8,2 10^{-10}	5,1 10^{-10}	3,1 10^{-10}	2,5 10^{-10}
Tb-154	21,4 h	0,005	4,7 10^{-9}	5,0 10^{-4}	3,4 10^{-9}	1,9 10^{-9}	1,3 10^{-9}	8,1 10^{-10}	6,5 10^{-10}
Tb-155	5,32 d	0,005	1,9 10^{-9}	5,0 10^{-4}	1,3 10^{-9}	6,8 10^{-10}	4,3 10^{-10}	2,6 10^{-10}	2,1 10^{-10}
Tb-156	5,34 d	0,005	9,0 10^{-9}	5,0 10^{-4}	6,3 10^{-9}	3,5 10^{-9}	2,3 10^{-9}	1,5 10^{-10}	1,2 10^{-9}
Tb-156m	1,02 d	0,005	1,5 10^{-9}	5,0 10^{-4}	1,0 10^{-9}	5,6 10^{-10}	3,5 10^{-10}	2,2 10^{-10}	1,7 10^{-10}
Tb-156m	5,00 h	0,005	8,0 10^{-10}	5,0 10^{-4}	5,2 10^{-10}	2,7 10^{-10}	1,7 10^{-10}	1,0 10^{-10}	8,1 10^{-11}
Tb-157	1,50 10^{2} a	0,005	4,9 10^{-10}	5,0 10^{-4}	2,2 10^{-10}	1,1 10^{-10}	6,8 10^{-11}	4,1 10^{-11}	3,4 10^{-11}
Tb-158	1,50 10^{2} a	0,005	1,3 10^{-8}	5,0 10^{-4}	5,9 10^{-9}	3,3 10^{-9}	2,1 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Tb-160	72,3 d	0,005	1,6 10^{-8}	5,0 10^{-4}	1,0 10^{-8}	5,4 10^{-9}	3,3 10^{-9}	2,0 10^{-9}	1,6 10^{-9}
Tb-161	6,91 d	0,005	8,3 10^{-9}	5,0 10^{-4}	5,3 10^{-9}	2,7 10^{-9}	1,6 10^{-9}	9,0 10^{-10}	7,2 10^{-10}

Dysprosium

Dy-155	10,0 h	0,005	9,7 10^{-10}	5,0 10^{-4}	6,8 10^{-10}	3,8 10^{-10}	2,5 10^{-10}	1,6 10^{-10}	1,3 10^{-10}
Dy-157	8,10 h	0,005	4,4 10^{-10}	5,0 10^{-4}	3,1 10^{-10}	1,8 10^{-10}	1,2 10^{-10}	7,7 10^{-11}	6,1 10^{-11}
Dy-159	144 d	0,005	1,0 10^{-9}	5,0 10^{-4}	6,4 10^{-10}	3,4 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	1,0 10^{-10}
Dy-165	2,33 h	0,005	1,3 10^{-9}	5,0 10^{-4}	7,9 10^{-10}	3,9 10^{-10}	2,3 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
Dy-166	3,40 d	0,005	1,9 10^{-8}	5,0 10^{-4}	1,2 10^{-8}	6,0 10^{-9}	3,6 10^{-9}	2,0 10^{-9}	1,6 10^{-9}

Holmium

Ho-155	0,800 h	0,005	3,8 10^{-10}	5,0 10^{-4}	2,3 10^{-10}	1,2 10^{-10}	7,1 10^{-11}	4,7 10^{-11}	3,7 10^{-11}
Ho-157	0,210 h	0,005	5,8 10^{-11}	5,0 10^{-4}	3,6 10^{-11}	1,9 10^{-11}	1,2 10^{-11}	8,1 10^{-12}	6,5 10^{-12}
Ho-159	0,550 h	0,005	7,1 10^{-11}	5,0 10^{-4}	4,3 10^{-11}	2,3 10^{-11}	1,4 10^{-11}	9,9 10^{-12}	7,9 10^{-12}
Ho-161	2,50 h	0,005	1,4 10^{-10}	5,0 10^{-4}	8,1 10^{-11}	4,2 10^{-11}	2,5 10^{-11}	1,6 10^{-11}	1,3 10^{-11}
Ho-162	0,250 h	0,005	3,5 10^{-11}	5,0 10^{-4}	2,0 10^{-11}	1,0 10^{-11}	6,0 10^{-12}	4,2 10^{-12}	3,3 10^{-12}
Ho-162m	1,13 h	0,005	2,4 10^{-10}	5,0 10^{-4}	1,5 10^{-10}	7,9 10^{-11}	4,9 10^{-11}	3,3 10^{-11}	2,6 10^{-11}
Ho-164	0,483 h	0,005	1,2 10^{-10}	5,0 10^{-4}	6,5 10^{-11}	3,2 10^{-11}	1,8 10^{-11}	1,2 10^{-11}	9,5 10^{-12}
Ho-164m	0,625 h	0,005	2,0 10^{-10}	5,0 10^{-4}	1,1 10^{-10}	5,5 10^{-11}	3,2 10^{-11}	2,1 10^{11}	1,6 10^{-11}
Ho-166	1,12 d	0,005	1,6 10^{-8}	5,0 10^{-4}	1,0 10^{-8}	5,2 10^{-9}	3,1 10^{-9}	1,7 10^{-9}	1,4 10^{-9}
Ho-166m	1,20 10^{3} a	0,005	2,6 10^{-8}	5,0 10^{-4}	9,3 10^{-9}	5,3 10^{-9}	3,5 10^{-9}	2,4 10^{-9}	2,0 10^{-9}
Ho-167	3,10 h	0,005	8,8 10^{-10}	5,0 10^{-10}	5,5 10^{-10}	2,8 10^{-10}	1,7 10^{-10}	1,0 10^{-10}	8,3 10^{-11}

Erbium

Er-161	3,24 h	0,005	6,5	5,0 10^{-4}	4,4	2,4	1,6	1,0 10-	8,0 10-

			10^{-10}		10^{-10}	10^{-10}	10^{-10}	10	11
Er-165	10,4 h	0,005	1,7 10^{-10}	5,0 10^{-4}	1,1 10^{-10}	6,2 10^{-11}	3,9 10^{-11}	2,4 10^{-11}	1,9 10^{-11}
Er-169	9,30 d	0,005	4,4 10^{-9}	5,0 10^{-4}	2,8 10^{-9}	1,4 10^{-9}	8,2 10^{-10}	4,7 10^{-10}	3,7 10^{-10}
Er-171	7,52 h	0,005	4,0 10^{-9}	5,0 10^{-4}	2,5 10^{-9}	1,3 10^{-9}	7,6 10^{-10}	4,5 10^{-10}	3,6 10^{-10}
Er-172	2,05 d	0,005	1,0 10^{-8}	5,0 10^{-4}	6,8 10^{-9}	3,5 10^{-9}	2,1 10^{-9}	1,3 10^{-9}	1,0 10^{-9}
Thulium									
Tm-162	0,362 h	0,005	2,9 10^{-10}	5,0 10^{-4}	1,7 10^{-10}	8,7 10^{-11}	5,2 10^{-11}	3,6 10^{-11}	2,9 10^{-11}
Tm-166	7,70 h	0,005	2,1 10^{-9}	5,0 10^{-4}	1,5 10^{-9}	8,3 10^{-10}	5,5 10^{-10}	3,5 10^{-10}	2,8 10^{-10}
Tm-167	9,24 d	0,005	6,0 10^{-9}	5,0 10^{-4}	3,9 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	7,0 10^{-10}	5,6 10^{-10}
Tm-170	129 d	0,005	1,6 10^{-8}	5,0 10^{-4}	9,8 10^{-9}	4,9 10^{-9}	2,9 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Tm-171	1,92 a	0,005	1,5 10^{-9}	5,0 10^{-4}	7,8 10^{-10}	3,9 10^{-10}	2,3 10^{-10}	1,3 10^{-10}	1,1 10^{-10}
Tm-172	2,65 d	0,005	1,9 10^{-8}	5,0 10^{-4}	1,2 10^{-8}	6,1 10^{-9}	3,7 10^{-9}	2,1 10^{-9}	1,7 10^{-9}
Tm-173	8,24 h	0,005	3,3 10^{-9}	5,0 10^{-4}	2,1 10^{-9}	1,1 10^{-9}	6,5 10^{-10}	3,8 10^{-10}	3,1 10^{-10}
Tm-175	0,253 h	0,005	3,1 10^{-10}	5,0 10^{-4}	1,7 10^{-10}	8,6 10^{-11}	5,0 10^{-11}	3,4 10^{-11}	2,7 10^{-11}
Ytterbium									
Yb-162	0,315 h	0,005	2,2 10^{-10}	5,0 10^{-4}	1,3 10^{-10}	6,9 10^{-11}	4,2 10^{-11}	2,9 10^{-11}	2,3 10^{-11}
Yb-166	2,36 d	0,005	7,7 10^{-9}	5,0 10^{-4}	5,4 10^{-9}	2,9 10^{-9}	1,9 10^{-9}	1,2 10^{-9}	9,5 10^{-10}
Yb-167	0,292 h	0,005	7,0 10^{-11}	5,0 10^{-4}	4,1 10^{-11}	2,1 10^{-11}	1,2 10^{-11}	8,4 10^{-12}	6,7 10^{-12}
Yb-169	32,0 d	0,005	7,1 10^{-9}	5,0 10^{-4}	4,6 10^{-9}	2,4 10^{-9}	1,5 10^{-9}	8,8 10^{-10}	7,1 10^{-10}
Yb-175	4,19 d	0,005	5,0	5,0 10^{-4}	3,2	1,6	9,5	5,4 10-	4,4 10-

			10^{-9}		10^{-9}	10^{-9}	10^{-10}	10	10
Yb-177	1,90 h	0,005	1,0 10^{-9}	5,0 10^{-4}	6,8 10^{-10}	3,4 10^{-10}	2,0 10^{-10}	1,1 10^{-10}	8,8 10^{-11}
Yb-178	1,23 h	0,005	1,4 10^{-9}	5,0 10^{-4}	8,4 10^{-10}	4,2 10^{-10}	2,4 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
Lutetium									
Lu-169	1,42 d	0,005	3,5 10^{-9}	5,0 10^{-4}	2,4 10^{-9}	1,4 10^{-9}	8,9 10^{-10}	5,7 10^{-10}	4,6 10^{-10}
Lu-170	2,00 d	0,005	7,4 10^{-9}	5,0 10^{-4}	5,2 10^{-9}	2,9 10^{-9}	1,9 10^{-9}	1,2 10^{-9}	9,9 10^{-10}
Lu-171	8,22 d	0,005	5,9 10^{-9}	5,0 10^{-4}	4,0 10^{-9}	2,2 10^{-9}	1,4 10^{-9}	8,5 10^{-10}	6,7 10^{-10}
Lu-172	6,70 d	0,005	1,0 10^{-8}	5,0 10^{-4}	7,0 10^{-9}	3,9 10^{-9}	2,5 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Lu-173	1,37 a	0,005	2,7 10^{-9}	5,0 10^{-4}	1,6 10^{-9}	8,6 10^{-10}	5,3 10^{-10}	3,2 10^{-10}	2,6 10^{-10}
Lu-174	3,31 a	0,005	3,2 10^{-9}	5,0 10^{-4}	1,7 10^{-9}	9,1 10^{-10}	5,6 10^{-10}	3,3 10^{-10}	2,7 10^{-10}
Lu-174m	142 d	0,005	6,2 10^{-9}	5,0 10^{-4}	3,8 10^{-9}	1,9 10^{-9}	1,1 10^{-9}	6,6 10^{-10}	5,3 10^{-10}
Lu-176	3,60 10^{10} a	0,005	2,4 10^{-8}	5,0 10^{-4}	1,1 10^{-8}	5,7 10^{-9}	3,5 10^{-9}	2,2 10^{-9}	1,8 10^{-9}
Lu-176m	3,68 h	0,005	2,0 10^{-9}	5,0 10^{-4}	1,2 10^{-9}	6,0 10^{-10}	3,5 10^{-10}	2,1 10^{-10}	1,7 10^{-10}
Lu-177	6,71 d	0,005	6,1 10^{-9}	5,0 10^{-4}	3,9 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	6,6 10^{-10}	5,3 10^{-10}
Lu-177m	161 d	0,005	1,7 10^{-8}	5,0 10^{-4}	1,1 10^{-8}	5,8 10^{-9}	3,6 10^{-9}	2,1 10^{-9}	1,7 10^{-9}
Lu-178	0,473 h	0,005	5,9 10^{-10}	5,0 10^{-4}	3,3 10^{-10}	1,6 10^{-10}	9,0 10^{-11}	6,1 10^{-11}	4,7 10^{-11}
Lu-178m	0,378 h	0,005	4,3 10^{-10}	5,0 10^{-4}	2,4 10^{-10}	1,2 10^{-10}	7,1 10^{-11}	4,9 10^{11}	3,8 10^{-11}
Lu-179	4,59 h	0,005	2,4 10^{-9}	5,0 10^{-4}	1,5 10^{-9}	7,5 10^{-10}	4,4 10^{-10}	2,6 10^{-10}	2,1 10^{-10}
Hafnium									
Hf-170	16,0 h	0,020	3,9	0,002	2,7	1,5	9,5	6,0 10^{-}	4,8 10^{-}

			10^{-9}		10^{-9}	10^{-9}	10^{-10}	10	10
Hf-172	1,87 a	0,020	1,9 10^{-8}	0,002	6,1 10^{-9}	3,3 10^{-9}	2,0 10^{-9}	1,3 10^{-9}	1,0 10^{-9}
Hf-173	24,0 h	0,020	1,9 10^{-9}	0,002	1,3 10^{-9}	7,2 10^{-10}	4,6 10^{-10}	2,8 10^{-10}	2,3 10^{-10}
Hf-175	70,0 d	0,020	3,8 10^{-9}	0,002	2,4 10^{-9}	1,3 10^{-9}	8,4 10^{-10}	5,2 10^{-10}	4,1 10^{-10}
Hf-177m	0,856 h	0,020	7,8 10^{-10}	0,002	4,7 10^{-10}	2,5 10^{-10}	1,5 10^{-10}	1,0 10^{-10}	8,1 10^{-11}
Hf-178m	31,0 a	0,020	7,0 10^{-8}	0,002	1,9 10^{-8}	1,1 10^{-8}	7,8 10^{-9}	5,5 10^{-9}	4,7 10^{-9}
Hf-179m	25,1 d	0,020	1,2 10^{-8}	0,002	7,8 10^{-9}	4,1 10^{-9}	2,6 10^{-9}	1,6 10^{-9}	1,2 10^{-9}
Hf-180m	5,50 h	0,020	1,4 10^{-9}	0,002	9,7 10^{-10}	5,3 10^{-10}	3,3 10^{-10}	2,1 10^{-10}	1,7 10^{-10}
Hf-181	42,4 d	0,020	1,2 10^{-8}	0,002	7,4 10^{-9}	3,8 10^{-9}	2,3 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Hf-182	9,00 10^{6} a	0,020	5,6 10^{-8}	0,002	7,9 10^{-9}	5,4 10^{-9}	4,0 10^{-9}	3,3 10^{-9}	3,0 10^{-9}
Hf-182m	1,02 h	0,020	4,1 10^{-10}	0,002	2,5 10^{-10}	1,3 10^{-10}	7,8 10^{-11}	5,2 10^{-11}	4,2 10^{-11}
Hf-183	1,07 h	0,020	8,1 10^{-10}	0,002	4,8 10^{-10}	2,4 10^{-10}	1,4 10^{-10}	9,3 10^{-11}	7,3 10^{-11}
Hf-184	4,12 h	0,020	5,5 10^{-9}	0,002	3,6 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	6,6 10^{-10}	5,2 10^{-10}
Tantalum									
Ta-172	0,613 h	0,010	5,5 10^{-10}	0,001	3,2 10^{-10}	1,6 10^{-10}	9,8 10^{-11}	6,6 10^{-11}	5,3 10^{-11}
Ta-173	3,65 h	0,010	2,0 10^{-9}	0,001	1,3 10^{-9}	6,5 10^{-10}	3,9 10^{-10}	2,4 10^{-10}	1,9 10^{-10}
Ta-174	1,20 h	0,010	6,2 10^{-10}	0,001	3,7 10^{-10}	1,9 10^{-10}	1,1 10^{-10}	7,2 10^{-11}	5,7 10^{-11}
Ta-175	10,5 h	0,010	1,6 10^{-9}	0,001	1,1 10^{-9}	6,2 10^{-10}	4,0 10^{-10}	2,6 10^{-10}	2,1 10^{-10}
Ta-176	8,08 h	0,010	2,4 10^{-9}	0,001	1,7 10^{-9}	9,2 10^{-10}	6,1 10^{-10}	3,9 10^{-10}	3,1 10^{-10}
Ta-177	2,36 d	0,010	1,0	0,001	6,9	3,6	2,2	1,3 10-	1,1 10-

			10^{-9}		10^{-10}	10^{-10}	10^{-10}	10	10
Ta-178	2,20 h	0,010	6,3 10^{-10}	0,001	4,5 10^{-10}	2,4 10^{-10}	1,5 10^{-10}	9,1 10^{-11}	7,2 10^{-11}
Ta-179	1,82 a	0,010	6,2 10^{-10}	0,001	4,1 10^{-10}	2,2 10^{-10}	1,3 10^{-10}	8,1 10^{-11}	6,5 10^{-11}
Ta-180	1,00 10^{13} a	0,010	8,1 10^{-9}	0,001	5,3 10^{-9}	2,8 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	8,4 10^{-10}
Ta-180m	8,10 h	0,010	5,8 10^{-10}	0,001	3,7 10^{-10}	1,9 10^{-10}	1,1 10^{-10}	6,7 10^{-11}	5,4 10^{-11}
Ta-182	115 d	0,010	1,4 10^{-8}	0,001	9,4 10^{-9}	5,0 10^{-9}	3,1 10^{-9}	1,9 10^{-9}	1,5 10^{-9}
Ta-182m	0,264 h	0,010	1,4 10^{-10}	0,001	7,5 10^{-11}	3,7 10^{-11}	2,1 10^{-11}	1,5 10^{-11}	1,2 10^{-11}
Ta-183	5,10 d	0,010	1,4 10^{-8}	0,001	9,3 10^{-9}	4,7 10^{-9}	2,8 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Ta-184	8,70 h	0,010	6,7 10^{-9}	0,001	4,4 10^{-9}	2,3 10^{-9}	1,4 10^{-9}	8,5 10^{-10}	6,8 10^{-10}
Ta-185	0,816 h	0,010	8,3 10^{-10}	0,001	4,6 10^{-10}	2,3 10^{-10}	1,3 10^{-10}	8,6 10^{-11}	68 10^{-11}
Ta-186	0,175 h	0,010	3,8 10^{-10}	0,001	2,1 10^{-10}	1,1 10^{-10}	6,1 10^{-11}	4,2 10^{-11}	3,3 10^{-11}

Tungsten

W-176	2,30 h	0,600	6,8 10^{-10}	0,300	5,5 10^{-10}	3,0 10^{-10}	2,0 10^{-10}	1,3 10^{-10}	1,0 10^{-10}
W-177	2,25 h	0,600	4,4 10^{-10}	0,300	3,2 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	7,2 10^{-11}	5,8 10^{-11}
W-178	21,7 d	0,600	1,8 10^{-9}	0,300	1,4 10^{-9}	7,3 10^{-10}	4,5 10^{-10}	2,7 10^{-10}	2,2 10^{-10}
W-179	0,625 h	0,600	3,4 10^{-11}	0,300	2,0 10^{-11}	1,0 10^{-11}	6,2 10^{-12}	4,2 10^{-12}	3,3 10^{-12}
W-181	121 d	0,600	6,3 10^{-10}	0,300	4,7 10^{-10}	2,5 10^{-10}	1,6 10^{-10}	9,5 10^{-11}	7,6 10^{-11}
W-185	75,1 d	0,600	4,4 10^{-9}	0,300	3,3 10^{-9}	1,6 10^{-9}	9,7 10^{-10}	5,5 10^{-10}	4,4 10^{-10}
W-187	23,9 h	0,600	5,5 10^{-9}	0,300	4,3 10^{-9}	2,2 10^{-9}	1,3 10^{-9}	7,8 10^{-10}	6,3 10^{-10}
W-188	69,4 d	0,600	2,1	0,300	1,5	7,7	4,6	2,6 10^{-}	2,1 10^{-}

			10^{-8}		10^{-8}	10^{-9}	10^{-9}	9	9
Rhenium									
Re-177	0,233 h	1,000	2,5 10^{-10}	0,800	1,4 10^{-10}	7,2 10^{-11}	4,1 10^{-11}	2,8 10^{-11}	2,2 10^{-11}
Re-178	0,220 h	1,000	2,9 10^{-10}	0,800	1,6 10^{-10}	7,9 10^{-11}	4,6 10^{-11}	3,1 10^{-11}	2,3 10^{-11}
Re-181	20,0 h	1,000	4,2 10^{-9}	0,800	2,8 10^{-9}	1,4 10^{-9}	8,2 10^{-10}	5,4 10^{-10}	4,2 10^{-10}
Re-182	2,67 d	1,000	1,4 10^{-8}	0,800	8,9 10^{-9}	4,7 10^{-9}	2,8 10^{-9}	1,8 10^{-9}	1,4 10^{-9}
Re-182	12,7 h	1,000	2,4 10^{-9}	0,800	1,7 10^{-9}	8,9 10^{-10}	5,2 10^{-10}	3,5 10^{-10}	2,7 10^{-10}
Re-184	38,0 d	1,000	8,9 10^{-9}	0,800	5,6 10^{-9}	3,0 10^{-9}	1,8 10^{-9}	1,3 10^{-9}	1,0 10^{-9}
Re-184m	165 d	1,000	1,7 10^{-8}	0,800	9,8 10^{-9}	4,9 10^{-9}	2,8 10^{-9}	1,9 10^{-9}	1,5 10^{-9}
Re-186	3,78 d	1,000	1,9 10^{-8}	0,800	1,1 10^{-8}	5,5 10^{-9}	3,0 10^{-9}	1,9 10^{-9}	1,5 10^{-9}
Re-186m	2,00 10^{5} a	1,000	3,0 10^{-8}	0,800	1,6 10^{-8}	7,6 10^{-9}	4,4 10^{-9}	2,8 10^{-9}	2,2 10^{-9}
Re-187	5,00 10^{10} a	1,000	3,8 10^{-11}	0,800	3,8 10^{-11}	1,8 10^{-11}	1,0 10^{-11}	6,5 10^{12}	5,1 10^{-12}
Re-188	17,0 h	1,000	1,7 10^{-8}	0,800	1,1 10^{-8}	5,4 10^{-9}	2,9 10^{-9}	1,8 10^{-9}	1,4 10^{-9}
Re-188m	0,310 h	1,000	3,8 10^{-10}	0,800	2,3 10^{-10}	1,1 10^{-10}	6,1 10^{-11}	4,0 10^{-11}	3,0 10^{-11}
Re-189	1,01 d	1,000	9,8 10^{-9}	0,800	6,2 10^{-9}	3,0 10^{-9}	1,6 10^{-9}	1,0 10^{-9}	7,8 10^{-10}
Osmium									
Os-180	0,366 h	0,020	1,6 10^{-10}	0,010	9,8 10^{-11}	5,1 10^{-11}	3,2 10^{-11}	2,2 10^{-11}	1,7 10^{-11}
Os-181	1,75 h	0,020	7,6 10^{-10}	0,010	5,0 10^{-10}	2,7 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	8,9 10^{-11}
Os-182	22,0 h	0,020	4,6 10^{-9}	0,010	3,2 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	7,0 10^{-10}	5,6 10^{-10}
Os-185	94,0 d	0,020	3,8	0,010	2,6	1,5	9,8	6,5 10-	5,1 10-

			10^{-9}		10^{-9}	10^{-9}	10^{-10}	10	10
Os-189m	6,00 h	0,020	2,1 10^{-10}	0,010	1,3 10^{-10}	6,5 10^{-11}	3,8 10^{-11}	2,2 10^{-11}	1,8 10^{-11}
Os-191	15,4 d	0,020	6,3 10^{-9}	0,010	4,1 10^{-9}	2,1 10^{-9}	1,2 10^{-9}	7,0 10^{-10}	5,7 10^{-10}
Os-191m	13,0 h	0,020	1,1 10^{-9}	0,010	7,1 10^{-10}	3,5 10^{-10}	2,1 10^{-10}	1,2 10^{-10}	9,6 10^{-11}
Os-193	1,25 d	0,020	9,3 10^{-9}	0,010	6,0 10^{-9}	3,0 10^{-9}	1,8 10^{-9}	1,0 10^{-9}	8,1 10^{-10}
Os-194	6,00 a	0,020	2,9 10^{-8}	0,010	1,7 10^{-8}	8,8 10^{-9}	5,2 10^{-9}	3,0 10^{-9}	2,4 10^{-9}
Iridium									
Ir-182	0,250 h	0,020	5,3 10^{-10}	0,010	3,0 10^{-10}	1,5 10^{-10}	8,9 10^{-11}	6,0 10^{-11}	4,8 10^{-11}
Ir-184	3,02 h	0,020	1,5 10^{-9}	0,010	9,7 10^{-10}	5,2 10^{-10}	3,3 10^{-10}	2,1 10^{-10}	1,7 10^{-10}
Ir-185	14,0 h	0,020	2,4 10^{-9}	0,010	1,6 10^{-9}	8,6 10^{-10}	5,3 10^{-10}	3,3 10^{-10}	2,6 10^{-10}
Ir-186	15,8 h	0,020	3,8 10^{-9}	0,010	2,7 10^{-9}	1,5 10^{-9}	9,6 10^{-10}	6,1 10^{-10}	4,9 10^{-10}
Ir-186	1,75 h	0,020	5,8 10^{-10}	0,010	3,6 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	7,7 10^{-11}	6,1 10^{-11}
Ir-187	10,5 h	0,020	1,1 10^{-9}	0,010	7,3 10^{-10}	3,9 10^{-10}	2,5 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
Ir-188	1,73 d	0,020	4,6 10^{-9}	0,010	3,3 10^{-9}	1,8 10^{-9}	1,2 10^{-9}	7,9 10^{-10}	6,3 10^{-10}
Ir-189	13,3 d	0,020	2,5 10^{-9}	0,010	1,7 10^{-9}	8,6 10^{-10}	5,2 10^{-10}	3,0 10^{-10}	2,4 10^{-10}
Ir-190	12,1 d	0,020	1,0 10^{-8}	0,010	7,1 10^{-9}	3,9 10^{-9}	2,5 10^{-9}	1,6 10^{-9}	1,2 10^{-9}
Ir-190m	3,10 h	0,020	9,4 10^{-10}	0,010	6,4 10^{-10}	3,5 10^{-10}	2,3 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
Ir-190m	1,20 h	0,020	7,9 10^{-11}	0,010	5,0 10^{-11}	2,6 10^{-11}	1,6 10^{-11}	1,0 10^{-11}	8,0 10^{-12}
Ir-192	74,0 d	0,020	1,3 10^{-8}	0,010	8,7 10^{-9}	4,6 10^{-9}	2,8 10^{-9}	1,7 10^{-9}	1,4 10^{-9}
Ir-192m	2,41 10^{2} a	0,020	2,8	0,010	1,4	8,3	5,5	3,7 10-	3,1 10-

			10^{-9}		10^{-9}	10^{-10}	10^{-10}	10	10
Ir-193m	11,9 d	0,020	3,2 10^{-9}	0,010	2,0 10^{-9}	1,0 10^{-9}	6,0 10^{-10}	3,4 10^{-10}	2,7 10^{-10}
Ir-194	19,1 h	0,020	1,5 10^{-8}	0,010	9,8 10^{-9}	4,9 10^{-9}	2,9 10^{-9}	1,7 10^{-9}	1,3 10^{-9}
Ir-194m	171 d	0,020	1,7 10^{-8}	0,010	1,1 10^{-8}	6,4 10^{-9}	4,1 10^{-9}	2,6 10^{-9}	2,1 10^{-9}
Ir-195	2,50 h	0,020	1,2 10^{-9}	0,010	7,3 10^{-10}	3,6 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	1,0 10^{-10}
Ir-195m	3,80 h	0,020	2,3 10^{-9}	0,010	1,5 10^{-9}	7,3 10^{-10}	4,3 10^{-10}	2,6 10^{-10}	2,1 10^{-10}
Platinum									
Pt-186	2,00 h	0,020	7,8 10^{-10}	0,010	5,3 10^{-10}	2,9 10^{-10}	1,8 10^{-10}	1,2 10^{-10}	9,3 10^{-11}
Pt-188	10,2 d	0,020	6,7 10^{-9}	0,010	4,5 10^{-9}	2,4 10^{-9}	1,5 10^{-9}	9,5 10^{-10}	7,6 10^{-10}
Pt-189	10,9 h	0,020	1,1 10^{-9}	0,010	7,4 10^{-10}	3,9 10^{-10}	2,5 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
Pt-191	2,80 d	0,020	3,1 10^{-9}	0,010	2,1 10^{-9}	1,1 10^{-9}	6,9 10^{-10}	4,2 10^{-10}	3,4 10^{-10}
Pt-193	50,0 a	0,020	3,7 10^{-10}	0,010	2,4 10^{-10}	1,2 10^{-10}	6,9 10^{-11}	3,5 10^{-11}	3,1 10^{-11}
Pt-193m	4,33 d	0,020	5,2 10^{-9}	0,010	3,4 10^{-9}	1,7 10^{-9}	9,9 10^{-10}	5,6 10^{-10}	4,5 10^{-10}
Pt-195m	4,02 d	0,020	7,1 10^{-9}	0,010	4,6 10^{-9}	2,3 10^{-9}	1,4 10^{-9}	7,9 10^{-10}	6,3 10^{-10}
Pt-197	18,3 h	0,020	4,7 10^{-9}	0,010	3,0 10^{-9}	1,5 10^{-9}	8,8 10^{-10}	5,1 10^{-10}	4,0 10^{-10}
Pt-197m	1,57 h	0,020	1,0 10^{-9}	0,010	6,1 10^{-10}	3,0 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	8,4 10^{-11}
Pt-199	0,513 h	0,020	4,7 10^{-10}	0,010	2,7 10^{-10}	1,3 10^{-10}	7,5 10^{-11}	5,0 10^{-11}	3,9 10^{-11}
Pt-200	12,5 h	0,020	1,4 10^{-8}	0,010	8,8 10^{-9}	4,4 10^{-9}	2,6 10^{-9}	1,5 10^{-9}	1,2 10^{-9}
Gold									
Au-193	17,6 h	0,200	1,2	0,100	8,8	4,6	2,8	1,7 10-	1,3 10-

			10^{-9}		10^{-10}	10^{-10}	10^{-10}	10	10
Au-194	1,65 h	0,200	2,9 10^{-9}	0,100	2,2 10^{-9}	1,2 10^{-9}	8,1 10^{-10}	5,3 10^{-10}	4,2 10^{-10}
Au-195	183 d	0,200	2,4 10^{-9}	0,100	1,7 10^{-9}	8,9 10^{-10}	5,4 10^{-10}	3,2 10^{-10}	2,5 10^{-10}
Au-198	2,69 d	0,200	1,0 10^{-8}	0,100	7,2 10^{-9}	3,7 10^{-9}	2,2 10^{-9}	1,3 10^{-9}	1,0 10^{-9}
Au-198m	2,30 d	0,200	1,2 10^{-8}	0,100	8,5 10^{-9}	4,4 10^{-9}	2,7 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Au-199	3,14 d	0,200	4,5 10^{-9}	0,100	3,1 10^{-9}	1,6 10^{-9}	9,5 10^{-10}	5,5 10^{-10}	4,4 10^{-10}
Au-200	0,807 h	0,200	8,3 10^{-10}	0,100	4,7 10^{-10}	2,3 10^{-10}	1,3 10^{-10}	8,7 10^{-11}	6,8 10^{-11}
Au-200m	18,7 h	0,200	9,2 10^{-9}	0,100	6,6 10^{-9}	3,5 10^{-9}	2,2 10^{-9}	1,3 10^{-9}	1,1 10^{-9}
Au-201	0,440 h	0,200	3,1 10^{-10}	0,100	1,7 10^{-10}	8,2 10^{-11}	4,6 10^{-11}	3,1 10^{-11}	2,4 10^{-11}

Mercury

Hg-193	3,50 h	1,000	3,3 10^{-10}	1,000	1,9 10^{-10}	9,8 10^{-11}	5,8 10^{-11}	3,9 10^{-11}	3,1 10^{-11}
(organic)		0,800	4,7 10^{-10}	0,400	4,4 10^{-10}	2,2 10^{-10}	1,4 10^{-10}	8,3 10^{-11}	6,6 10^{-11}
Hg-193	3,50 h	0,040	8,5 10^{-10}	0,020	5,5 10^{-10}	2,8 10^{-10}	1,7 10^{-10}	1,0 10^{-10}	8,2 10^{-11}
(inorganic)									
Hg-193m	11,1 h	1,000	1,1 10^{-9}	1,000	6,8 10^{-10}	3,7 10^{-10}	2,3 10^{-10}	1,5 10^{-10}	1,3 10^{-10}
(organic)		0,800	1,6 10^{-9}	0,400	1,8 10^{-9}	9,5 10^{-10}	6,0 10^{-10}	3,7 10^{-10}	3,0 10^{-10}
Hg-193m	11,1 h	0,040	3,6 10^{-9}	0,020	2,4 10^{-9}	1,3 10^{-9}	8,1 10^{-10}	5,0 10^{-10}	4,0 10^{-10}
(inorganic)									
Hg-194	2,60 10^{2} a	1,000	1,3 10^{-7}	1,000	1,2 10^{-7}	8,4 10^{-8}	6,6 10^{-8}	5,5 10^{-8}	5,1 10^{-8}
(organic)		0,800	1,1 10^{-7}	0,400	4,8 10^{-8}	3,5 10^{-8}	2,7 10^{-8}	2,3 10^{-8}	2,1 10^{-8}
Hg-194	2,60 10^{2} a	0,040	7,2 10^{-9}	0,020	3,6 10^{-9}	2,6 10^{-9}	1,9 10^{-9}	1,5 10^{-9}	1,4 10^{-9}

(inorganic)									
Hg-195	9,90 h	1,000	3,0 10^{-10}	1,000	2,0 10^{-10}	1,0 10^{-10}	6,4 10^{-11}	4,2 10^{-11}	3,4 10^{-11}
(organic)		0,800	4,6 10^{-10}	0,400	4,8 10^{-10}	2,5 10^{-10}	1,5 10^{-10}	9,3 10^{-11}	7,5 10^{-11}
Hg-195	9,90 h	0,040	9,5 10^{-10}	0,020	6,3 10^{-10}	3,3 10^{-10}	2,0 10^{-10}	1,2 10^{-11}	9,7 10^{-11}
(inorganic)									
Hg-195m	1,73 d	1,000	2,1 10^{-9}	1,000	1,3 10^{-9}	6,8 10^{-10}	4,2 10^{-10}	2,7 10^{-10}	2,2 10^{-10}
(organic)		0,800	2,6 10^{-9}	0,400	2,8 10^{-9}	1,4 10^{-9}	8,7 10^{-10}	5,1 10^{-10}	4,1 10^{-10}
Hg-195m	1,73 d	0,040	5,8 10^{-9}	0,020	3,8 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	7,0 10^{-10}	5,6 10^{-10}
(inorganic)									
Hg-197	2,67 d	1,000	9,7 10^{-10}	1,000	6,2 10^{-10}	3,1 10^{-10}	1,9 10^{-10}	1,2 10^{-10}	9,9 10^{-11}
(organic)		0,800	1,3 10^{-9}	0,400	1,2 10^{-9}	6,1 10^{-10}	3,7 10^{-10}	2,2 10^{-10}	1,7 10^{-10}
Hg-197	2,67 d	0,040	2,5 10^{-9}	0,020	1,6 10^{-9}	8,3 10^{-10}	5,0 10^{-10}	2,9 10^{-10}	2,3 10^{-10}
(inorganic)									
Hg-197m	23,8 h	1,000	1,5 10^{-9}	1,000	9,5 10^{-10}	4,8 10^{-10}	2,9 10^{-10}	1,8 10^{-10}	1,5 10^{-10}
(organic)		0,800	2,2 10^{-9}	0,400	2,5 10^{-9}	1,2 10^{-9}	7,3 10^{-10}	4,2 10^{-10}	3,4 10^{-10}
Hg-197m	23,8 h	0,040	5,2 10^{-9}	0,020	3,4 10^{-9}	1,7 10^{-9}	1,0 10^{-9}	5,9 10^{-10}	4,7 10^{-10}
(inorganic)									
Hg-199m	0,710 h	1,000	3,4 10^{-10}	1,000	1,9 10^{-10}	9,3 10^{-11}	5,3 10^{-11}	3,6 10^{-11}	2,8 10^{-11}
(organic)		0,800	3,6 10^{-10}	0,400	2,1 10^{-10}	1,0 10^{-10}	5,8 10^{-11}	3,9 10^{-11}	3,1 10^{-11}
Hg-199m	0,710 h	0,040	3,7 10^{-10}	0,020	2,1 10^{-10}	1,0 10^{-10}	5,9 10^{-11}	3,9 10^{-11}	3,1 10^{-11}
(inorganic)									
Hg-203	46,6 d	1,000	1,5 10^{-8}	1,000	1,1 10^{-8}	5,7 10^{-9}	3,6 10^{-9}	2,3 10^{-9}	1,9 10^{-9}
(organic)		0,800	1,3 10^{-8}	0,400	6,4 10^{-9}	3,4 10^{-9}	2,1 10^{-9}	1,3 10^{-9}	1,1 10^{-9}

Hg-203 (inorganic)	46,6 d	0,040	$5,5\ 10^{-9}$	0,020	$3,6\ 10^{-9}$	$1,8\ 10^{-9}$	$1,1\ 10^{-9}$	$6,7\ 10^{-10}$	$5,4\ 10^{-10}$
Thallium									
Tl-194	0,550 h	1,000	$6,1\ 10^{-11}$	1,000	$3,9\ 10^{-11}$	$2,2\ 10^{-11}$	$1,4\ 10^{-11}$	$1,0\ 10^{-11}$	$8,1\ 10^{-12}$
Tl-194m	0,546 h	1,000	$3,8\ 10^{-10}$	1,000	$2,2\ 10^{-10}$	$1,2\ 10^{-10}$	$7,0\ 10^{-11}$	$4,9\ 10^{-11}$	$4,0\ 10^{-11}$
Tl-195	1,16 h	1,000	$2,3\ 10^{-10}$	1,000	$1,4\ 10^{-10}$	$7,5\ 10^{-11}$	$4,7\ 10^{-11}$	$3,3\ 10^{-11}$	$2,7\ 10^{-11}$
Tl-197	2,84 h	1,000	$2,1\ 10^{-10}$	1,000	$1,3\ 10^{-10}$	$6,7\ 10^{-11}$	$4,2\ 10^{-11}$	$2,8\ 10^{-11}$	$2,3\ 10^{-11}$
Tl-198	5,30 h	1,000	$4,7\ 10^{-10}$	1,000	$3,3\ 10^{-10}$	$1,9\ 10^{-10}$	$1,2\ 10^{-10}$	$8,7\ 10^{-11}$	$7,3\ 10^{-11}$
Tl-198m	1,87 h	1,000	$4,8\ 10^{-10}$	1,000	$3,0\ 10^{-10}$	$1,6\ 10^{-10}$	$9,7\ 10^{-11}$	$6,7\ 10^{-11}$	$5,4\ 10^{-11}$
Tl-199	7,42 h	1,000	$2,3\ 10^{-10}$	1,000	$1,5\ 10^{-10}$	$7,7\ 10^{-11}$	$4,8\ 10^{-11}$	$3,2\ 10^{-11}$	$2,6\ 10^{-11}$
Tl-200	1,09 d	1,000	$1,3\ 10^{-9}$	1,000	$9,1\ 10^{-10}$	$5,3\ 10^{-10}$	$3,5\ 10^{-10}$	$2,4\ 10^{-10}$	$2,0\ 10^{-10}$
Tl-201	3,04 d	1,000	$8,4\ 10^{-10}$	1,000	$5,5\ 10^{-10}$	$2,9\ 10^{-10}$	$1,8\ 10^{-10}$	$1,2\ 10^{-10}$	$9,5\ 10^{-11}$
Tl-202	12,2 d	1,000	$2,9\ 10^{-9}$	1,000	$2,1\ 10^{-9}$	$1,2\ 10^{-9}$	$7,9\ 10^{-10}$	$5,4\ 10^{-10}$	$4,5\ 10^{-10}$
Tl-204	3,78 a	1,000	$1,3\ 10^{-8}$	1,000	$8,5\ 10^{-9}$	$4,2\ 10^{-9}$	$2,5\ 10^{-9}$	$1,5\ 10^{-9}$	$1,2\ 10^{-9}$
Lead[a]									
Pb-195m	0,263 h	0,600	$2,6\ 10^{-10}$	0,200	$1,6\ 10^{-10}$	$8,4\ 10^{-11}$	$5,2\ 10^{-11}$	$3,5\ 10^{-11}$	$2,9\ 10^{-11}$
Pb-198	2,40 h	0,600	$5,9\ 10^{-10}$	0,200	$4,8\ 10^{-10}$	$2,7\ 10^{-10}$	$1,7\ 10^{-10}$	$1,1\ 10^{-10}$	$1,,0\ 10^{-10}$
Pb-199	1,50 h	0,600	$3,5\ 10^{-10}$	0,200	$2,6\ 10^{-10}$	$1,5\ 10^{-10}$	$9,4\ 10^{-11}$	$6,3\ 10^{-11}$	$5,4\ 10^{-11}$
Pb-200	21,5 h	0,600	$2,5\ 10^{-9}$	0,200	$2,0\ 10^{-9}$	$1,1\ 10^{-9}$	$7,0\ 10^{-10}$	$4,4\ 10^{-10}$	$4,0\ 10^{-10}$
Pb-201	9,40 h	0,600	$9,4\ 10^{-10}$	0,200	$7,8\ 10^{-10}$	$4,3\ 10^{-10}$	$2,7\ 10^{-10}$	$1,8\ 10^{-10}$	$1,6\ 10^{-10}$

Pb-202	3,00 10^{5} a	0,600	3,4 10^{-8}	0,200	1,6 10^{-8}	1,3 10^{-8}	1,9 10^{-8}	2,7 10^{-8}	8,8 10^{-9}
Pb-202m	3,62 h	0,600	7,6 10^{-10}	0,200	6,1 10^{-10}	3,5 10^{-10}	2,3 10^{-10}	1,5 10^{-10}	1,3 10^{-10}
Pb-203	2,17 d	0,600	1,6 10^{-9}	0,200	1,3 10^{-9}	6,8 10^{-10}	4,3 10^{-10}	2,7 10^{-10}	2,4 10^{-10}
Pb-205	1,43 10^{7} a	0,600	2,1 10^{-9}	0,200	9,9 10^{-10}	6,2 10^{-10}	6,1 10^{-10}	6,5 10^{-10}	2,8 10^{-10}
Pb-209	3,25 h	0,600	5,7 10^{-10}	0,200	3,8 10^{-10}	1,9 10^{-10}	1,1 10^{-10}	6,6 10^{-11}	5,7 10^{-11}
Pb-210	22,3 a	0,600	8,4 10^{-6}	0,200	3,6 10^{-6}	2,2 10^{-6}	1,9 10^{-6}	1,9 10^{-6}	6,9 10^{-7}
Pb-211	0,601 h	0,600	3,1 10^{-9}	0,200	1,4 10^{-9}	7,1 10^{-10}	4,1 10^{-10}	2,7 10^{-10}	1,8 10^{-10}
Pb-212	10,6 h	0,600	1,5 10^{-7}	0,200	6,3 10^{-8}	3,3 10^{-8}	2,0 10^{-8}	1,3 10^{-8}	6,0 10^{-9}
Pb-214	0,447 h	0,600	2,7 10^{-9}	0,200	1,0 10^{-9}	5,2 10^{-10}	3,1 10^{-10}	2,0 10^{-10}	1,4 10^{-10}
Bismuth									
Bi-200	0,606 h	0,100	4,2 10^{-10}	0,050	2,7 10^{-10}	1,5 10^{-10}	9,5 10^{-11}	6,4 10^{-11}	5,1 10^{-11}
Bi-201	1,80 h	0,100	1,0 10^{-9}	0,050	6,7 10^{-10}	3,6 10^{-10}	2,2 10^{-10}	1,4 10^{-10}	1,2 10^{-10}
Bi-202	1,67 h	0,100	6,4 10^{-10}	0,050	4,4 10^{-10}	2,5 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	8,9 10^{-11}
Bi-203	11,8 h	0,100	3,5 10^{-9}	0,050	2,5 10^{-9}	1,4 10^{-9}	9,3 10^{-10}	6,0 10^{-10}	4,8 10^{-10}
Bi-205	15,3 d	0,100	6,1 10^{-9}	0,050	4,5 10^{-9}	2,6 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	9,0 10^{-10}
Bi-206	6,24 d	0,100	1,4 10^{-8}	0,050	1,0 10^{-8}	5,7 10^{-9}	3,7 10^{-9}	2,4 10^{-9}	1,9 10^{-9}
Bi-207	38,0 a	0,100	1,0 10^{-8}	0,050	7,1 10^{-9}	3,9 10^{-9}	2,5 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Bi-210	5,01 d	0,100	1,5 10^{-8}	0,050	9,7 10^{-9}	4,8 10^{-9}	2,9 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Bi-210m	3,00 10^{6} a	0,100	2,1 10^{-7}	0,050	9,1 10^{-8}	4,7 10^{-8}	3,0 10^{-8}	1,9 10^{-8}	1,5 10^{-8}

Bi-212	1,01 h	0,100	3,2 10^{-9}	0,050	1,8 10^{-9}	8,7 10^{-10}	5,0 10^{-10}	3,3 10^{-10}	2,6 10^{-10}
Bi-213	0,761 h	0,100	2,5 10^{-9}	0,050	1,4 10^{-9}	6,7 10^{-10}	3,9 10^{-10}	2,5 10^{-10}	2,0 10^{-10}
Bi-214	0,332 h	0,100	1,4 10^{-9}	0,050	7,4 10^{-10}	3,6 10^{-10}	2,1 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
Polonium									
Po-203	0,612 h	1,000	2,9 10^{-10}	0,500	2,4 10^{-10}	1,3 10^{-10}	8,5 10^{-11}	5,8 10^{-11}	4,6 10^{-11}
Po-205	1,80 h	1,000	3,5 10^{-10}	0,500	2,8 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	7,2 10^{-11}	5,8 10^{-11}
Po-207	5,83 h	1,000	4,4 10^{-10}	0,500	5,7 10^{-10}	3,2 10^{-10}	2,1 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
Po-210	138 d	1,000	2,6 10^{-5}	0,500	8,8 10^{-10}	4,4 10^{-10}	2,6 10^{-10}	1,6 10^{-10}	1,2 10^{-10}
Astatine									
At-207	1,80 h	1,000	2,5 10^{-9}	1,000	1,6 10^{-9}	8,0 10^{-10}	4,8 10^{-10}	2,9 10^{-10}	2,4 10^{-10}
At-211	7,21 h	1,000	1,2 10^{-7}	1,000	7,8 10^{-8}	3,8 10^{-8}	2,3 10^{-8}	1,3 10^{-8}	1,1 10^{-8}
Francium									
Fr-222	0,240 h	1,000	6,2 10^{-9}	1,000	3,9 10^{-9}	2,0 10^{-9}	1,3 10^{-9}	8,5 10^{-10}	7,2 10^{-10}
Fr-223	0,363 h	1,000	2,6 10^{-8}	1,000	1,7 10^{-8}	8,3 10^{-9}	5,0 10^{-9}	2,9 10^{-9}	2,4 10^{-9}
Radium[b]									
Ra-223	11,4 d	0,600	5,3 10^{-6}	0,200	1,1 10^{-6}	5,7 10^{-7}	4,5 10^{-7}	3,7 10^{-7}	1,0 10^{-7}
Ra-224	3,66 d	0,600	2,7 10^{-6}	0,200	6,6 10^{-7}	3,5 10^{-7}	2,6 10^{-7}	2,0 10^{-7}	6,5 10^{-8}
Ra-225	14,8 d	0,600	7,1 10^{-6}	0,200	1,2 10^{-6}	6,1 10^{-10}	5,0 10^{-7}	4,4 10^{-7}	9,9 10^{-8}
Ra-226	1,60 10^{3} a	0,600	4,7 10^{-6}	0,200	9,6 10^{-7}	6,2 10^{-7}	8,0 10^{-7}	1,5 10^{-6}	2,8 10^{-7}
Ra-227	0,703 h	0,600	1,1	0,200	4,3	2,5	1,7	1,3 10-	8,1 10-

			10^{-9}		10^{-10}	10^{-10}	10^{-10}	10	11
Ra-228	5,75 a	0,600	3,0 10^{-5}	0,200	5,7 10^{-6}	3,4 10^{-10}	3,9 10^{-6}	5,3 10^{-6}	6,9 10^{-7}
Actinium									
Ac-224	2,90 h	0,005	1,0 10^{-8}	5,0 10^{-4}	5,2 10^{-9}	2,6 10^{-9}	1,5 10^{-9}	8,8 10^{-10}	7,0 10^{-10}
Ac-225	10,0 d	0,005	4,6 10^{-7}	5,0 10^{-4}	1,8 10^{-7}	9,1 10^{-8}	5,4 10^{-8}	3,0 10^{-8}	2,4 10^{-8}
Ac-226	1,21 d	0,005	1,4 10^{-7}	5,0 10^{-4}	7,6 10^{-8}	3,8 10^{-8}	2,3 10^{-8}	1,3 10^{-8}	1,0 10^{-8}
Ac-227	21,8 a	0,005	3,3 10^{-5}	5,0 10^{-4}	3,1 10^{-6}	2,2 10^{-6}	1,5 10^{-6}	1,2 10^{-6}	1,1 10^{-6}
Ac-228	6,13 h	0,005	7,4 10^{-9}	5,0 10^{-4}	2,8 10^{-9}	1,4 10^{-9}	8,7 10^{-10}	5,3 10^{-10}	4,3 10^{-10}
Thorium									
Th-226	0,515 h	0,005	4,4 10^{-9}	5,0 10^{-4}	2,4 10^{-9}	1,2 10^{-9}	6,7 10^{-10}	4,5 10^{-10}	3,5 10^{-10}
Th-227	18,7 d	0,005	3,0 10^{-7}	5,0 10^{-4}	7,0 10^{-8}	3,6 10^{-8}	2,3 10^{-8}	1,5 10^{-8}	8,8 10^{-9}
Th-228	1,91 a	0,005	3,7 10^{-6}	5,0 10^{-4}	3,7 10^{-7}	2,2 10^{-7}	1,5 10^{-7}	9,4 10^{-8}	7,2 10^{-8}
Th-229	7,34 10^{3} a	0,005	1,1 10^{-5}	5,0 10^{-4}	1,0 10^{-6}	7,8 10^{-7}	6,2 10^{-7}	5,3 10^{-7}	4,9 10^{-7}
Th-230	7,70 10^{4} a	0,005	4,1 10^{-6}	5,0 10^{-4}	4,1 10^{-7}	3,1 10^{-7}	2,4 10^{-7}	2,1 10^{-7}	2,1 10^{-7}
Th-231	1,06 d	0,005	3,9 10^{-9}	5,0 10^{-4}	2,5 10^{-9}	1,2 10^{-9}	7,4 10^{-10}	4,2 10^{-10}	3,4 10^{-10}
Th-232	1,40 10^{10} a	0,005	4,6 10^{-6}	5,0 10^{-4}	4,5 10^{-7}	3,5 10^{-7}	2,9 10^{-7}	2 10^{-7}	2,3 10^{-7}
Th-234	24,1 d	0,005	4,0 10^{-8}	5,0 10^{-4}	2,5 10^{-8}	1,3 10^{-8}	7,4 10^{-9}	4,2 10^{-9}	3,4 10^{-9}
Protactinium									
Pa-227	0,638 h	0,005	5,8 10^{-9}	5,0 10^{-4}	3,2 10^{-9}	1,5 10^{-9}	8,7 10^{-10}	5,8 10^{-10}	4,5 10^{-10}
Pa-228	22,0 h	0,005	1,2 10^{-8}	5,0 10^{-4}	4,8 10^{-9}	2,6 10^{-9}	1,6 10^{-9}	9,7 10^{-10}	7,8 10^{-10}

Pa-230	17,4 d	0,005	2,6 10^{-8}	5,0 10^{-4}	5,7 10^{-9}	3,1 10^{-9}	1,9 10^{-9}	1,1 10^{-9}	9,2 10^{-10}
Pa-231	3,27 10^{4} a	0,005	1,3 10^{-5}	5,0 10^{-4}	1,3 10^{-6}	1,1 10^{-6}	9,2 10^{-7}	8, 10^{-7}	7,1 10^{-7}
Pa-232	1,31 d	0,005	6,3 10^{-9}	5,0 10^{-4}	4,2 10^{-9}	2,2 10^{-9}	1,4 10^{-9}	8,9 10^{-10}	7,2 10^{-10}
Pa-233	27,0 d	0,005	9,7 10^{-9}	5,0 10^{-4}	6,2 10^{-9}	3,2 10^{-9}	1,9 10^{-9}	1,1 10^{-9}	8,7 10^{-10}
Pa-234	6,70 h	0,005	5,0 10^{-9}	5,0 10^{-4}	3,2 10^{-9}	1,7 10^{-9}	1,0 10^{-9}	6,4 10^{-10}	5,1 10^{-10}
Uranium									
U-230	20,8 d	0,040	7,9 10^{-7}	0,020	3,0 10^{-7}	1,5 10^{-7}	1,0 10^{-7}	6,6 10^{-8}	5,6 10^{-8}
U-231	4,20 d	0,040	3,1 10^{-9}	0,020	2,0 10^{-9}	1,0 10^{-9}	6,1 10^{-10}	3,5 10^{-10}	2,8 10^{-10}
U-232	72,0 a	0,040	2,5 10^{-6}	0,020	8,2 10^{-7}	5,8 10^{-7}	5,7 10^{-7}	6,4 10^{-7}	3,3 10^{-7}
U-233	1,58 10^{5} a	0,040	3,8 10^{-7}	0,020	1,4 10^{-7}	9,2 10^{-8}	7,8 10^{-8}	7,8 10^{-8}	5,1 10^{-8}
U-234	2,44 10^{5} a	0,040	3,7 10^{-7}	0,020	1,3 10^{-7}	8,8 10^{-8}	7,4 10^{-8}	7,4 10^{-8}	4,9 10^{-8}
U-235	7,04 10^{8} a	0,040	3,5 10^{-7}	0,020	1,3 10^{-7}	8,5 10^{-8}	7,1 10^{-8}	7,0 10^{-8}	4,7 10^{-8}
U-236	2,34 10^{7} a	0,040	3,5 10^{-7}	0,020	1,3 10^{-7}	8,4 10^{-8}	7,0 10^{-8}	7,0 10^{-8}	4,7 10^{-8}
U-237	6,75 d	0,040	8,3 10^{-9}	0,020	5,4 10^{-9}	2,8 10^{-9}	1,6 10^{-9}	9,5 10^{-10}	7,6 10^{-10}
U-238	4,47 10^{9} a	0,040	3,4 10^{-7}	0,020	1,2 10^{-7}	8,0 10^{-8}	6,8 10^{-8}	6,7 10^{-8}	4,5 10^{-8}
U-239	0,392 h	0,040	3,4 10^{-10}	0,020	1,9 10^{-10}	9,3 10^{-11}	5,4 10^{-11}	3,5 10^{-11}	2,7 10^{-11}
U-240	14,1 h	0,040	1,3 10^{-8}	0,020	8,1 10^{-9}	4,1 10^{-9}	2,4 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Neptunium									
Np-232	0,245 h	0,005	8,7 10^{-11}	5,0 10^{-4}	5,1 10^{-11}	2,7 10^{-11}	1,7 10^{-11}	1,2 10^{-11}	9,7 10^{-12}

Np-233	0,603 h	0,005	$2,1\ 10^{-11}$	$5,0\ 10^{-4}$	$1,3\ 10^{-11}$	$6,6\ 10^{-12}$	$4,0\ 10^{-12}$	$2,8\ 10^{-12}$	$2,2\ 10^{-12}$
Np-234	4,40 d	0,005	$6,2\ 10^{-9}$	$5,0\ 10^{-4}$	$4,4\ 10^{-9}$	$2,4\ 10^{-9}$	$1,6\ 10^{-9}$	$1,0\ 10^{-9}$	$8,1\ 10^{-10}$
Np-235	1,08 a	0,005	$7,1\ 10^{-10}$	$5,0\ 10^{-4}$	$4,1\ 10^{-10}$	$2,0\ 10^{-10}$	$1,2\ 10^{-10}$	$6,8\ 10^{-11}$	$5,3\ 10^{-11}$
Np-236	$1,15\ 10^{5}$ a	0,005	$1,9\ 10^{-7}$	$5,0\ 10^{-4}$	$2,4\ 10^{-8}$	$1,8\ 10^{-8}$	$1,8\ 10^{-8}$	$1,\ 10^{-8}$	$1,7\ 10^{-8}$
Np-236	22,5 h	0,005	$2,5\ 10^{-9}$	$5,0\ 10^{-4}$	$1,3\ 10^{-9}$	$6,6\ 10^{-10}$	$4,0\ 10^{-10}$	$2,4\ 10^{-10}$	$1,9\ 10^{-10}$
Np-237	$2,14\ 10^{6}$ a	0,005	$2,0\ 10^{-6}$	$5,0\ 10^{-4}$	$2,1\ 10^{-7}$	$1,4\ 10^{-7}$	$1,1\ 10^{-7}$	$1,1\ 10^{-7}$	$1,1\ 10^{-7}$
Np-238	2,12 d	0,005	$9,5\ 10^{-9}$	$5,0\ 10^{-4}$	$6,2\ 10^{-9}$	$3,2\ 10^{-9}$	$1,9\ 10^{-9}$	$1,1\ 10^{-9}$	$9,1\ 10^{-10}$
Np-239	2,36 d	0,005	$8,9\ 10^{-9}$	$5,0\ 10^{-4}$	$5,7\ 10^{-9}$	$2,9\ 10^{-9}$	$1,7\ 10^{-9}$	$1,0\ 10^{-9}$	$8,0\ 10^{-10}$
Np-240	1,08 h	0,005	$8,7\ 10^{-10}$	$5,0\ 10^{-4}$	$5,2\ 10^{-10}$	$2,6\ 10^{-10}$	$1,6\ 10^{-10}$	$1,0\ 10^{-0}$	$8,2\ 10^{-11}$

Plutonium

Pu-234	8,80 h	0,005	$2,1\ 10^{-9}$	$5,0\ 10^{-4}$	$1,1\ 10^{-9}$	$5,5\ 10^{-10}$	$3,3\ 10^{-10}$	$2,0\ 10^{-10}$	$1,6\ 10^{-10}$
Pu-235	0,422 h	0,005	$2,2\ 10^{-11}$	$5,0\ 10^{-4}$	$1,3\ 10^{-11}$	$6,5\ 10^{-12}$	$3,9\ 10^{-12}$	$2,7\ 10^{-12}$	$2,1\ 10^{-12}$
Pu-236	2,85 a	0,005	$2,1\ 10^{-6}$	$5,0\ 10^{-4}$	$2,2\ 10^{-7}$	$1,4\ 10^{-7}$	$1,0\ 10^{-7}$	$8,5\ 10^{-8}$	$8,7\ 10^{-8}$
Pu-237	45,3 d	0,005	$1,1\ 10^{-9}$	$5,0\ 10^{-4}$	$6,9\ 10^{-10}$	$3,6\ 10^{-10}$	$2,2\ 10^{-10}$	$1,3\ 10^{-10}$	$1,0\ 10^{-10}$
Pu-238	87,7 a	0,005	$4.0\ 10^{-9}$	$5,0\ 10^{-4}$	$4,0\ 10^{-7}$	$3,1\ 10^{-7}$	$2,4\ 10^{-7}$	$2,2\ 10^{-7}$	$2,3\ 10^{-7}$
Pu-239	$2,41\ 10^{4}$ a	0,005	$4,2\ 10^{-6}$	$5,0\ 10^{-4}$	$4,2\ 10^{-7}$	$3,3\ 10^{-7}$	$2,7\ 10^{-7}$	$2,4\ 10^{-7}$	$2,5\ 10^{-7}$
Pu-240	$6,54\ 10^{3}$ a	0,005	$4,2\ 10^{-6}$	$5,0\ 10^{-4}$	$4,2\ 10^{-7}$	$3,3\ 10^{-7}$	$2,7\ 10^{-7}$	$2,4\ 10^{-7}$	$2,5\ 10^{-7}$
Pu-241	14,4 a	0,005	$5,6\ 10^{-8}$	$5,0\ 10^{-4}$	$5,7\ 10^{-9}$	$5,5\ 10^{-9}$	$5,1\ 10^{-9}$	$4,8\ 10^{-9}$	$4,8\ 10^{-9}$
Pu-242	$3,76\ 10^{5}$ a	0,005	$4,0\ 10^{-6}$	$5,0\ 10^{-7}$	$4,0\ 10^{-7}$	$3,2\ 10^{-7}$	$2,6\ 10^{-7}$	$2,3\ 10^{-7}$	$2,4\ 10^{-7}$

Pu-243	4,95 h	0,005	1,0 10^{-9}	5,0 10^{-4}	6,2 10^{-10}	3,1 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	8,5 10^{-11}
Pu-244	8,26 10^{7} a	0,005	4,0 10^{-6}	5,0 10^{-4}	4,1 10^{-7}	3,2 10^{-7}	2,6 10^{-7}	2,3 10^{-7}	2,4 10^{-7}
Pu-245	10,5 h	0,005	8,0 10^{-9}	5,0 10^{-4}	5,1 10^{-9}	2,6 10^{-9}	1,5 10^{-9}	8,9 10^{-10}	7,2 10^{-10}
Pu-246	10,9 d	0,005	3,6 10^{-8}	5,0 10^{-4}	2,3 10^{-8}	1,2 10^{-8}	7,1 10^{-9}	4,1 10^{-9}	3,3 10^{-9}

Americium

Am-237	1,22 h	0,005	1,7 10^{-10}	5,0 10^{-4}	1,0 10^{-10}	5,5 10^{-11}	3,3 10^{-11}	2,2 10^{-11}	1,8 10^{-11}
Am-238	1,63 h	0,005	2,5 10^{-10}	5,0 10^{-4}	1,6 10^{-10}	9,1 10^{-11}	5,9 10^{-11}	4,0 10^{-11}	3,2 10^{-11}
Am-239	11,9 h	0,005	2,6 10^{-9}	5,0 10^{-4}	1,7 10^{-9}	8,4 10^{-10}	5,1 10^{-10}	3,0 10^{-10}	2,4 10^{-10}
Am-240	2,12 d	0,005	4,7 10^{-9}	5,0 10^{-4}	3,3 10^{-9}	1,8 10^{-9}	1,2 10^{-9}	7,3 10^{-10}	5,8 10^{-10}
Am-241	4,32 10^{2} a	0,005	3,7 10^{-6}	5,0 10^{-4}	3,7 10^{-7}	2,7 10^{-7}	2,2 10^{-7}	2,0 10^{-7}	2,0 10^{-7}
Am-242	16,0 h	0,005	5,0 10^{-9}	5,0 10^{-4}	2,2 10^{-9}	1,1 10^{-9}	6,4 10^{-10}	3,7 10^{-10}	3,0 10^{-10}
Am-242m	1,52 10^{2} a	0,005	3,1 10^{-6}	5,0 10^{-4}	3,0 10^{-7}	2,3 10^{-7}	2,0 10^{-7}	1,9 10^{-7}	1,9 10^{-7}
Am-243	7,38 10^{3} a	0,005	3,6 10^{-6}	5,0 10^{-4}	3,7 10^{-7}	2,7 10^{-7}	2,2 10^{-7}	2,0 10^{-7}	2,0 10^{-7}
Am-244	10,1 h	0,005	4,9 10^{-9}	5,0 10^{-4}	3,1 10^{-9}	1,6 10^{-9}	9,6 10^{-10}	5,8 10^{-10}	4,6 10^{-10}
Am-244m	0,433 h	0,005	3,7 10^{-10}	5,0 10^{-4}	2,0 10^{-10}	9,6 10^{-11}	5,5 10^{-11}	3,7 10^{-11}	2,9 10^{-11}
Am-245	2,05 h	0,005	6,8 10^{-10}	5,0 10^{-4}	4,5 10^{-10}	2,2 10^{-10}	1,3 10^{-10}	7,9 10^{-11}	6,2 10^{-11}
Am-246	0,650 h	0,005	6,7 10^{-10}	5,0 10^{-4}	3,8 10^{-10}	1,9 10^{-10}	1,1 10^{-10}	7,3 10^{-11}	5,8 10^{-11}
Am-246m	0,417 h	0,005	3,9 10^{-10}	5,0 10^{-4}	2,2 10^{-10}	1,1 10^{-10}	6,4 10^{-11}	4,4 10^{-11}	3,4 10^{-11}

Curium

Cm-238	2,40 h	0,005	7,8 10^{-10}	5,0 10^{-4}	4,9 10^{-10}	2,6 10^{-10}	1,6 10^{-10}	1,0 10^{-10}	8,0 10^{-11}
Cm-240	27,0 d	0,005	2,2 10^{-7}	5,0 10^{-4}	4,8 10^{-8}	2,5 10^{-8}	1,5 10^{-8}	9,2 10^{-9}	7,6 10^{-9}
Cm-241	32,8 d	0,005	1,1 10^{-8}	5,0 10^{-9}	5,7 10^{-9}	3,0 10^{-9}	1,9 10^{-9}	1,1 10^{-9}	9,1 10^{-10}
Cm-242	163 d	0,005	5,9 10^{-7}	5,0 10^{-4}	7,6 10^{-8}	3,9 10^{-8}	2,4 10^{-8}	1,5 10^{-8}	1,2 10^{-8}
Cm-243	28,5 a	0,005	3,2 10^{-4}	5,0 10^{-4}	3,3 10^{-7}	2,2 10^{-7}	1,6 10^{-7}	1,4 10^{-7}	1,5 10^{-7}
Cm-244	18,1 a	0,005	2,9 10^{-6}	5,0 10^{-4}	2,9 10^{-7}	1,9 10^{-7}	1,4 10^{-7}	1,2 10^{-7}	1,2 10^{-7}
Cm-245	8,50 10^{3} a	0,005	3,7 10^{-6}	5,0 10^{-4}	3,7 10^{-7}	2,8 10^{-7}	2,3 10^{-7}	2,1 10^{-7}	2,1 10^{-7}
Cm-246	4,73 10^{3} a	0,005	3,7 10^{-6}	5,0 10^{-4}	3,7 10^{-7}	2,8 10^{-7}	2,2 10^{-7}	2,1 10^{-7}	2,1 10^{-7}
Cm-247	1,56 10^{7} a	0,005	3,4 10^{-6}	5,0 10^{-4}	3,5 10^{-7}	2,6 10^{-7}	2,1 10^{-7}	1,9 10^{-7}	1,9 10^{-7}
Cm-248	3,39 10^{5} a	0,005	1,4 10^{-5}	5,0 10^{-4}	1,4 10^{-6}	1,0 10^{-6}	8,4 10^{-7}	7,7 10^{-7}	7,7 10^{-7}
Cm-249	1,07 h	0,005	3,9 10^{-10}	5,0 10^{-4}	2,2 10^{-10}	1,1 10^{-10}	6,1 10^{-11}	4,0 10^{-11}	3,1 10^{-11}
Cm-250	6,90 10^{3} a	0,005	7,8 10^{-5}	5,0 10^{-4}	8,2 10^{-6}	6,0 10^{-6}	4,9 10^{-6}	4,4 10^{-6}	4,4 10^{-6}

Berkelium

Bk-245	4,94 d	0,005	6,1 10^{-9}	5,0 10^{-4}	3,9 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	7,2 10^{-10}	5,7 10^{-10}
Bk-246	1,83 d	0,005	3,7 10^{-9}	5,0 10^{-4}	2,6 10^{-9}	1,4 10^{-9}	9,4 10^{-10}	6,0 10^{-10}	4,8 10^{-10}
Bk-247	1,38 10^{3} a	0,005	8,9 10^{-6}	5,0 10^{-4}	8,6 10^{-7}	6,3 10^{-7}	4,6 10^{-7}	3,8 10^{-7}	3,5 10^{-7}
Bk-249	320 d	0,005	2,2 10^{-8}	5,0 10^{-4}	2,9 10^{-9}	1,9 10^{-9}	1,4 10^{-9}	1,1 10^{-9}	9,7 10^{-10}
Bk-250	3,22 h	0,005	1,5 10^{-9}	5,0 10^{-4}	8,5 10^{-10}	4,4 10^{-10}	2,7 10^{-10}	1,7 10^{-10}	1,4 10^{-10}

Californium

Cf-244	0,323 h	0,005	$9,8\ 10^{-10}$	$5,0\ 10^{-4}$	$4,8\ 10^{-10}$	$2,4\ 10^{-10}$	$1,3\ 10^{-10}$	$8,9\ 10^{-11}$	$7,0\ 10^{-11}$
Cf-246	1,49 d	0,005	$5,0\ 10^{-8}$	$5,0\ 10^{-4}$	$2,4\ 10^{-8}$	$1,2\ 10^{-8}$	$7,3\ 10^{-9}$	$4,1\ 10^{-9}$	$3,3\ 10^{-9}$
Cf-248	334 d	0,005	$1,5\ 10^{-6}$	$5,0\ 10^{-4}$	$1,6\ 10^{-7}$	$9,9\ 10^{-8}$	$6,0\ 10^{-8}$	$3,3\ 10^{-8}$	$2,8\ 10^{-8}$
Cf-249	$3,50\ 10^{2}$ a	0,005	$9,0\ 10^{-6}$	$5,0\ 10^{-4}$	$8,7\ 10^{-7}$	$6,4\ 10^{-7}$	$4,7\ 10^{-7}$	$3,8\ 10^{-7}$	$3,5\ 10^{-7}$
Cf-250	13,1 a	0,005	$5,7\ 10^{-6}$	$5,0\ 10^{-4}$	$5,5\ 10^{-7}$	$3,7\ 10^{-7}$	$2,3\ 10^{-7}$	$1,7\ 10^{-7}$	$1,6\ 10^{-7}$
Cf-251	$8,98\ 10^{2}$ a	0,005	$9,1\ 10^{-6}$	$5,0\ 10^{-4}$	$8,8\ 10^{-7}$	$6,5\ 10^{-7}$	$4,7\ 10^{-7}$	$3,9\ 10^{-7}$	$3,6\ 10^{-7}$
Cf-252	2,64 a	0,005	$5,0\ 10^{-6}$	$5,0\ 10^{-4}$	$5,1\ 10^{-7}$	$3,2\ 10^{-7}$	$1,9\ 10^{-7}$	$1,0\ 10^{-7}$	$9,0\ 10^{-8}$
Cf-253	17,8 d	0,005	$1,0\ 10^{-7}$	$5,0\ 10^{-4}$	$1,1\ 10^{-8}$	$6,0\ 10^{-9}$	$3,7\ 10^{-9}$	$1,8\ 10^{-9}$	$1,4\ 10^{-9}$
Cf-254	60,5 d	0,005	$1,1\ 10^{-5}$	$5,0\ 10^{-4}$	$2,6\ 10^{-6}$	$1,4\ 10^{-6}$	$8,4\ 10^{-7}$	$5,0\ 10^{-7}$	$4,0\ 10^{-7}$
Einsteinium									
Es-250	2,10 h	0,005	$2,3\ 10^{-10}$	$5,0\ 10^{-4}$	$9,9\ 10^{-11}$	$5,7\ 10^{-11}$	$3,7\ 10^{-11}$	$2,6\ 10^{-11}$	$2,1\ 10^{-11}$
Es-251	1,38 d	0,005	$1,9\ 10^{-9}$	$5,0\ 10^{-4}$	$1,2\ 10^{-9}$	$6,1\ 10^{-10}$	$3,7\ 10^{-10}$	$2,2\ 10^{-10}$	$1,7\ 10^{-10}$
Es-253	20,5 d	0,005	$1,7\ 10^{-7}$	$5,0\ 10^{-4}$	$4,5\ 10^{-8}$	$2,3\ 10^{-8}$	$1,4\ 10^{-8}$	$7,6\ 10^{-8}$	$6,1\ 10^{-9}$
Es-254	276 d	0,005	$1,4\ 10^{-6}$	$5,0\ 10^{-4}$	$1,6\ 10^{-7}$	$9,8\ 10^{-8}$	$6,0\ 10^{-8}$	$3,3\ 10^{-8}$	$2,8\ 10^{-8}$
Es-254m	1,64 d	0,005	$5,7\ 10^{-8}$	$5,0\ 10^{-4}$	$3,0\ 10^{-8}$	$1,5\ 10^{-8}$	$9,1\ 10^{-9}$	$5,2\ 10^{-9}$	$4,2\ 10^{-9}$
Fermium									
Fm-252	22,7 h	0,005	$3,8\ 10^{-8}$	$5,0\ 10^{-4}$	$2,0\ 10^{-8}$	$9,9\ 10^{-9}$	$5,9\ 10^{-9}$	$3,3\ 10^{-9}$	$2,7\ 10^{-9}$
Fm-253	3,00 d	0,005	$2,5\ 10^{-8}$	$5,0\ 10^{-4}$	$6,7\ 10^{-9}$	$3,4\ 10^{-9}$	$2,1\ 10^{-9}$	$1,1\ 10^{-9}$	$9,1\ 10^{-10}$
Fm-254	3,24 h	0,005	$5,6\ 10^{-9}$	$5,0\ 10^{-4}$	$3,2\ 10^{-9}$	$1,6\ 10^{-9}$	$9,3\ 10^{-10}$	$5,6\ 10^{-10}$	$4,4\ 10^{-10}$

Fm-255	20,1 h	0,005	3,3 10^{-8}	5,0 10^{-4}	1,9 10^{-8}	9,5 10^{-9}	5,6 10^{-9}	3,2 10^{-9}	2,5 10^{-9}
Fm-257	101 d	0,005	9,8 10^{-7}	5,0 10^{-4}	1,1 10^{-7}	6,5 10^{-8}	4,0 10^{-8}	1,9 10^{-8}	1,5 10^{-8}
Mendelevium									
Md-257	5,20 h	0,005	3,1 10^{-9}	5,0 10^{-4}	8,8 10^{-10}	4,5 10^{-10}	2,7 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
Md-258	55,0 d	0,005	6,3 10^{-7}	5,0 10^{-4}	8,9 10^{-8}	5,0 10^{-8}	3,0 10^{-8}	1,6 10^{-8}	1,3 10^{-8}

TABLE (B)

Committed effective dose per unit intake via inhalation (Sv Bq^{-1}) for members of the public

Nuclide	Physical half-life	Type	Age ≤ 1 a		Age	1—2 a	2—7 a	7—12 a	12—17 a	> 17 a
			f_1	h(g)	f_1	h(g)	h(g)	h(g)	h(g)	h(g)
Hydrogen										
Tritiated water	12,3 a	F	1,000	2,6 10^{-11}	1,000	2.0 10^{-11}	1,1 10^{-11}	8,2 10^{-12}	5,9 10^{-12}	6,2 10^{-12}
		M	0,200	3,4 10^{-10}	0,100	2,7 10^{-10}	1,4 10^{-10}	8,2 10^{-11}	5,3 10^{-11}	4,5 10^{-11}
		S	0,020	1,2 10^{-9}	0,010	1,0 10^{-9}	6,3 10^{-10}	3,8 10^{-10}	2,8 10^{-10}	2,6 10^{-11}
Beryllium										
Be-7	53,3 d	M	0,020	2,5 10^{-10}	0,005	2,1 10^{-10}	1,2 10^{-10}	8,3 10^{-11}	6,2 10^{-11}	5,0 10^{-11}
		S	0,020	2,8 10^{-10}	0,005	2,4 10^{-10}	1,4 10^{-10}	9,6 10^{-11}	6,8 10^{-11}	5,5 10^{-11}
Be-10	1,60 10^{6} a	M	0,020	4,1 10^{-8}	0,005	3,4 10^{-8}	2,0 10^{-8}	1,3 10^{-8}	1,1 10^{-8}	9,6 10^{-9}
		S	0,020	9,9 10^{-8}	0,005	9,1 10^{-8}	6,1 10^{-8}	4,2 10^{-8}	3,7 10^{-8}	3,5 10^{-8}
Carbon										
C-11	0,340 h	F	1,000	1,0 10^{-10}	1,000	7,0 10^{-11}	3,2 10^{-11}	2,1 10^{-11}	1,3 10^{-11}	1,1 10^{-11}
		M	0,200	1,5 10^{-10}	0,100	1,1 10^{-10}	4,9 10^{-11}	3,2 10^{-11}	2,1 10^{-11}	1,8 10^{-11}
		S	0,020	1,6 10^{-10}	0,010	1,1 10^{-10}	5,1 10^{-11}	3,3 10^{-11}	2,2 10^{-11}	1,8 10^{-11}

C-14	$5,73\ 10^{3}$ a	F	1,000	$6,1\ 10^{-10}$	1,000	$6,7\ 10^{-10}$	$3,6\ 10^{-10}$	$2,9\ 10^{-10}$	$1,9\ 10^{-10}$	$2,0\ 10^{-10}$
		M	0,200	$8,3\ 10^{-9}$	0,100	$6,6\ 10^{-9}$	$4,0\ 10^{-9}$	$2,8\ 10^{-9}$	$2,5\ 10^{-9}$	$2,0\ 10^{-9}$
		S	0,020	$1,9\ 10^{-8}$	0,010	$1,7\ 10^{-8}$	$1,1\ 10^{-8}$	$7,4\ 10^{-9}$	$6,4\ 10^{-9}$	$5,8\ 10^{-9}$
Fluorine										
F-18	1,83 h	F	1,000	$2,6\ 10^{-10}$	1,000	$1,9\ 10^{-10}$	$9,1\ 10^{-11}$	$5,6\ 10^{-11}$	$3,4\ 10^{-11}$	$2,8\ 10^{-11}$
		M	1,000	$4,1\ 10^{-10}$	1,000	$2,9\ 10^{-10}$	$1,5\ 10^{-10}$	$9,7\ 10^{-11}$	$6,9\ 10^{-11}$	$5,6\ 10^{-11}$
		S	1,000	$4,2\ 10^{-10}$	1,000	$3,1\ 10^{-10}$	$1,5\ 10^{-10}$	$1,0\ 10^{-10}$	$7,3\ 10^{-11}$	$5,9\ 10^{-11}$
Sodium										
Na-22	2,60 a	F	1,000	$9,7\ 10^{-9}$	1,000	$7,3\ 10^{-9}$	$3,8\ 10^{-9}$	$2,4\ 10^{-9}$	$1,5\ 10^{-9}$	$1,3\ 10^{-9}$
Na-24	15,0 h	F	1,000	$2,3\ 10^{-9}$	1,000	$1,8\ 10^{-9}$	$9,3\ 10^{-10}$	$5,7\ 10^{-10}$	$3,4\ 10^{-10}$	$2,7\ 10^{-10}$
Magnesium										
Mg-28	20,9 h	F	1,000	$5,3\ 10^{-9}$	0,500	$4,7\ 10^{-9}$	$2,2\ 10^{-9}$	$1,3\ 10^{-9}$	$7,3\ 10^{-10}$	$6,0\ 10^{-10}$
		M	1,000	$7,3\ 10^{-9}$	0,500	$7,2\ 10^{-9}$	$3,5\ 10^{-9}$	$2,3\ 10^{-9}$	$1,5\ 10^{-9}$	$1,2\ 10^{-9}$
Aluminium										
Al-26	$7,16\ 10^{5}$ a	F	0,020	$8,1\ 10^{-8}$	0,010	$6,2\ 10^{-5}$	$3,2\ 10^{-8}$	$2,0\ 10^{-8}$	$1,3\ 10^{-8}$	$1,1\ 10^{-8}$
		M	0,020	$8,8\ 10^{-8}$	0,010	$7,4\ 10^{-8}$	$4,4\ 10^{-8}$	$2,9\ 10^{-8}$	$2,2\ 10^{-8}$	$2,0\ 10^{-8}$
Silicon										
Si-31	2,62 h	F	0,020	$3,6\ 10^{-10}$	0,010	$2,3\ 10^{-10}$	$9,5\ 10^{-11}$	$5,9\ 10^{-11}$	$3,2\ 10^{-11}$	$2,7\ 10^{-11}$
		M	0,020	$6,9\ 10^{-10}$	0,010	$4,4\ 10^{-10}$	$2,0\ 10^{-10}$	$1,3\ 10^{-10}$	$8,9\ 10^{-11}$	$7,4\ 10^{-11}$
		S	0,020	$7,2\ 10^{-10}$	0,010	$4,7\ 10^{-10}$	$2,2\ 10^{-10}$	$1,4\ 10^{-10}$	$9,5\ 10^{-11}$	$7,9\ 10^{-11}$
Si-32	$4,50\ 10^{2}$ a	F	0,020	$3,0\ 10^{-8}$	0,010	$2,3\ 10^{-8}$	$1,1\ 10^{-8}$	$6,4\ 10^{-9}$	$3,8\ 10^{-9}$	$3,2\ 10^{-9}$
		M	0,020	$7,1\ 10^{-8}$	0,010	$6,0\ 10^{-8}$	$3,6\ 10^{-8}$	$2,4\ 10^{-8}$	$1,9\ 10^{-8}$	$1,7\ 10^{-8}$
		S	0,020	$2,8\ 10^{-7}$	0,010	$2,7\ 10^{-7}$	$1,9\ 10^{-7}$	$1,3\ 10^{-7}$	$1,1\ 10^{-7}$	$1,1\ 10^{-7}$

Phosphorus

P-32	14,3 d	F	1,000	1,2 10^{-8}	0,800	7,5 10^{-9}	3,2 10^{-9}	1,8 10^{-9}	9,8 10^{-10}	7,7 10^{-10}
		M	1,000	2,2 10^{-8}	0,800	1,5 10^{-8}	8,0 10^{-9}	5,3 10^{-9}	4,0 10^{-9}	3,4 10^{-9}
P-33	25,4 d	F	1,000	1,2 10^{-9}	0,800	7,8 10^{-10}	3,0 10^{-10}	2,0 10^{-10}	1,1 10^{-10}	9,2 10^{-11}
		M	1,000	6,1 10^{-9}	0,800	4,6 10^{-9}	2,8 10^{-9}	2,1 10^{-9}	1,9 10^{-9}	1,5 10^{-9}
Sulphur										
S-35	87,4 d	F	1,000	5,5 10^{-10}	0,800	3,9 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	6,0 10^{-11}	5,1 10^{-11}
(inorganic)		M	0,200	5,9 10^{-9}	0,100	4,5 10^{-9}	2,8 10^{-9}	2,0 10^{-9}	1,8 10^{-9}	1,4 10^{-9}
		S	0,020	7,7 10^{-9}	0,010	6,0 10^{-4}	3,6 10^{-9}	2,6 10^{-9}	2,3 10^{-9}	1,9 10^{-9}
Chlorine										
Cl-36	3,01 10^{5} a	F	1,000	3,9 10^{-9}	1,000	2,6 10^{-9}	1,1 10^{-9}	7,1 10^{-10}	3,9 10^{-10}	3,3 10^{-10}
		M	1,000	3,1 10^{-8}	1,000	2,6 10^{-8}	1,5 10^{-8}	1,0 10^{-8}	8,8 10^{-9}	7,3 10^{-9}
Cl-38	0,620 h	F	1,000	2,9 10^{-10}	1,000	1,9 10^{-10}	8,4 10^{-11}	5,1 10^{-11}	3,0 10^{-11}	2,5 10^{-11}
		M	1,000	4,7 10^{-10}	1,000	3,0 10^{-10}	1,4 10^{-10}	8,5 10^{-11}	5,4 10^{-11}	4,5 10^{-11}
Cl-39	0,927 h	F	1,000	2,7 10^{-10}	1,000	1,8 10^{-10}	8,4 10^{-11}	5,1 10^{-11}	3,1 10^{-11}	2,5 10^{-11}
		M	1,000	4,3 10^{-10}	1,000	2,8 10^{-10}	1,3 10^{-10}	8,5 10^{-11}	5,6 10^{-11}	4,6 10^{-11}
Potassium										
K-40	1,28 10^{9} a	F	1,000	2,4 10^{-8}	1,000	1,7 10^{-8}	7,5 10^{-9}	4,5 10^{-9}	2,5 10^{-9}	2,1 10^{-9}
K-42	12,4 h	F	1,000	1,6 10^{-9}	1,000	1,0 10^{-10}	4,4 10^{-10}	2,6 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
K-43	22,6 h	F	1,000	1,3 10^{-9}	1,000	9,7 10^{-10}	4,7 10^{-10}	2,9 10^{-10}	1,7 10^{-10}	1,4 10^{-10}
K-44	0,369 h	F	1,000	2,2 10^{-10}	1,000	1,4 10^{-10}	6,5 10^{-11}	4,0 10^{-11}	2,4 10^{-11}	2,0 10^{-11}
K-45	0,333 h	F	1,000	1,5 10^{-10}	1,000	1,0 10^{-10}	4,8 10^{-11}	3,0 10^{-11}	1,8 10^{-11}	1,5 10^{-11}
Calcium[(a)]										
Ca-41	1,40 10^{5} a	F	0,600	6,7 10^{-10}	0,300	3,8 10^{-10}	2,6 10^{-10}	3,3 10^{-10}	3,3 10^{-10}	1,7 10^{-10}
		M	0,20	4,2 10^{-10}	0,10	2,6 10^{-10}	1,7	1,7	1,6 10^{-10}	9,5 10-

			0		0		10^{-10}	10^{-10}		11
		S	0,020	6,7 10^{-10}	0,010	6,0 10^{-10}	3,8 10^{-10}	2,4 10^{-10}	1,9 10^{-10}	1,8 10^{-10}
Ca-45	163 d	F	0,600	5,7 10^{-9}	0,300	3,0 10^{-9}	1,4 10^{-9}	1,0 10^{-9}	7,6 10^{-10}	4,6 10^{-10}
		M	0,200	1,2 10^{-8}	0,100	8,8 10^{-9}	5,3 10^{-9}	3,9 10^{-9}	3,5 10^{-8}	2,7 10^{-9}
		S	0,020	1,5 10^{-8}	0,010	1,2 10^{-8}	7,2 10^{-9}	5,1 10^{-9}	4,6 10^{-9}	3,7 10^{-9}
Ca-47	4,53 d	F	0,600	4,9 10^{-9}	0,300	3,6 10^{-8}	1,7 10^{-9}	1,1 10^{-9}	6,1 10^{-10}	5,5 10^{-10}
		M	0,200	1,0 10^{-8}	0,100	7,7 10^{-9}	4,2 10^{-9}	2,9 10^{-9}	2,4 10^{-9}	1,9 10^{-9}
		S	0,020	1,2 10^{-8}	0,010	8,5 10^{-9}	4,6 10^{-9}	3,3 10^{-9}	2,6 10^{-9}	2,1 10^{-9}

Scandium

Sc-43	3,89 h	S	0,001	9,3 10^{-10}	1,0 10^{-4}	6,7 10^{-10}	3,3 10^{-10}	2,2 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
Sc-44	3,93 h	S	0,001	1,6 10^{-9}	1,0 10^{-4}	1,2 10^{-9}	5,6 10^{-10}	3,6 10^{-10}	2.3 10^{-10}	1,8 10^{-10}
Sc-44 m	2,44 d	S	0,001	1,1 10^{-8}	1,0 10^{-4}	8,4 10^{-9}	4,2 10^{-9}	2,8 10^{-9}	1,7 10^{-9}	1,4 10^{-9}
Sc-46	83,8 d	S	0,001	2,8 10^{-8}	1,0 10^{-4}	2,3 10^{-4}	1,4 10^{-8}	9,8 10^{-9}	8,4 10^{-9}	6,8 10^{-9}
Sc-47	3,35 d	S	0,001	4,0 10^{-9}	1,0 10^{-4}	2,8 10^{-6}	1,5 10^{-4}	1,1 10^{-9}	9,2 10^{-10}	7,3 10^{-10}
Sc-48	1,82 d	S	0,001	7,8 10^{-9}	1,0 10^{-4}	5,9 10^{-9}	3,1 10^{-9}	2,0 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Sc-49	0,956 h	S	0,001	3,9 10^{-10}	1,0 10^{-4}	2,4 10^{-15}	1,1 10^{-10}	7,1 10^{-11}	4,7 10^{-11}	4,0 10^{-11}

Titanium

Ti-44	47,3 a	F	0,020	3,1 10^{-7}	0,010	2,6 10^{-7}	1,5 10^{-7}	9,6 10^{-8}	6,6 10^{-8}	6,1 10^{-8}
		M	0,020	1,7 10^{-7}	0,010	1,5 10^{-7}	9,2 10^{-8}	5,9 10^{-8}	4,6 10^{-8}	4,2 10^{-8}
		S	0,020	3,2 10^{-7}	0,010	3,1 10^{-7}	2,1 10^{-7}	1,5 10^{-7}	1,3 10^{-7}	1,2 10^{-7}
Ti-45	3,08 h	F	0,020	4,4 10^{-10}	0,010	3,2 10^{-10}	1,5 10^{-10}	9,1 10^{-11}	5,1 10^{-11}	4,2 10^{-11}
		M	0,020	7,4 10^{-10}	0,010	5,2 10^{-10}	2,5 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	8,8 10^{-11}
		S	0,020	7,7 10^{-10}	0,010	5,5 10^{-10}	2,7 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	9,3 10^{-11}

Vanadium

V-47	0,543 h	F	0,020	$1,8\ 10^{-10}$	0,010	$1,2\ 10^{-10}$	$5,6\ 10^{-11}$	$3,5\ 10^{-11}$	$2,1\ 10^{-11}$	$1,7\ 10^{-11}$
		M	0,020	$2,8\ 10^{-10}$	0,010	$1,9\ 10^{-10}$	$8,6\ 10^{-11}$	$5,5\ 10^{-11}$	$3,5\ 10^{-11}$	$2,9\ 10^{-11}$
V-48	16,2 d	F	0,020	$8,4\ 10^{-9}$	0,010	$6,4\ 10^{-9}$	$3,3\ 10^{-9}$	$2,1\ 10^{-9}$	$1,3\ 10^{-9}$	$1,1\ 10^{-9}$
		M	0,020	$1,4\ 10^{-8}$	0,010	$1,1\ 10^{-8}$	$6,3\ 10^{-9}$	$4,3\ 10^{-9}$	$2,9\ 10^{-9}$	$2,4\ 10^{-9}$
V-49	330 d	F	0,020	$2,0\ 10^{-10}$	0,010	1,6 10- [illegible]	$7,7\ 10^{-11}$	$4,3\ 10^{-11}$	$2,5\ 10^{-11}$	$2,1\ 10^{-11}$
		M	0,020	$2,8\ 10^{-10}$	0,010	2,1 10- [illegible]	$1,1\ 10^{-10}$	$6,3\ 10^{-11}$	$4,0\ 10^{-11}$	3,4 10-
Chromium										
Cr-48	23,0 h	F	0,200	$7,6\ 10^{-10}$	0,100	$6,0\ 10^{-10}$	$3,1\ 10^{-10}$	$2,0\ 10^{-10}$	$1,2\ 10^{-10}$	$9,9\ 10^{-11}$
		M	0,200	$1,1\ 10^{-9}$	0,100	$9,1\ 10^{-10}$	$5,1\ 10^{-10}$	$3,4\ 10^{-10}$	$2,5\ 10^{-10}$	$2,0\ 10^{-10}$
		S	0,200	$1,2\ 10^{-9}$	0,100	$9,8\ 10^{-10}$	$5,5\ 10^{-10}$	$3,7\ 10^{-10}$	$2,8\ 10^{-10}$	$2,2\ 10^{-10}$
Cr-49	0,702 h	F	0,200	$1,9\ 10^{-10}$	0,100	$1,3\ 10^{-10}$	$6,0\ 10^{-11}$	$3,7\ 10^{-11}$	$2,2\ 10^{-11}$	$1,9\ 10^{-11}$
		M	0,200	$3,0\ 10^{-10}$	0,100	$2,0\ 10^{-10}$	$9,5\ 10^{-11}$	$6,1\ 10^{-11}$	$4,0\ 10^{-11}$	$3,3\ 10^{-11}$
		S	0,200	$3,1\ 10^{-10}$	0,100	$2,1\ 10^{-10}$	$9,9\ 10^{-11}$	$6,4\ 10^{-11}$	$4,2\ 10^{-11}$	$3,5\ 10^{-11}$
Cr-51	27,7 d	F	0,200	$1,7\ 10^{-10}$	0,100	$1,3\ 10^{-10}$	$6,3\ 10^{-11}$	$4,0\ 10^{-11}$	$2,4\ 10^{-11}$	$2,0\ 10^{-11}$
		M	0,200	$2,6\ 10^{-10}$	0,100	$1,9\ 10^{-10}$	$1,0\ 10^{-10}$	$6,4\ 10^{-11}$	$3,9\ 10^{-11}$	$3,2\ 10^{-11}$
		S	0,200	$2,6\ 10^{-10}$	0,100	$2,1\ 10^{-10}$	$1,0\ 10^{-10}$	$6,6\ 10^{-11}$	$4,5\ 10^{-11}$	$3,7\ 10^{-11}$
Manganese										
Mn-51	0,770 h	F	0,200	$2,5\ 10^{-10}$	0,100	$1,7\ 10^{-10}$	$7,5\ 10^{-11}$	$4,6\ 10^{-11}$	$2,7\ 10^{-11}$	$2,3\ 10^{-11}$
		M	0,200	$4,0\ 10^{-10}$	0,100	$2,7\ 10^{-10}$	$1,2\ 10^{-10}$	$7,8\ 10^{-11}$	$5,0\ 10^{-11}$	$4,1\ 10^{-11}$
Mn-52	5,59 d	F	0,200	$7,0\ 10^{-9}$	0,100	$5,5\ 10^{-9}$	$2,9\ 10^{-9}$	$1,8\ 10^{-9}$	$1,1\ 10^{-9}$	$9,4\ 10^{-10}$
		M	0,200	$8,6\ 10^{-9}$	0,100	$6,8\ 10^{-9}$	$3,7\ 10^{-9}$	$2,4\ 10^{-9}$	$1,7\ 10^{-9}$	$1,4\ 10^{-9}$
Mn-52m	0,352 h	F	0,200	$1,9\ 10^{-10}$	0,100	$1,3\ 10^{-10}$	$6,1\ 10^{-11}$	$3,8\ 10^{-11}$	$2,2\ 10^{-11}$	$1,9\ 10^{-11}$
		M	0,200	$2,8\ 10^{-10}$	0,100	$1,9\ 10^{-10}$	$8,7\ 10^{-11}$	$5,5\ 10^{-11}$	$3,4\ 10^{-11}$	$2,9\ 10^{-11}$

Mn-53	3,70 10[illegible] a	F	0,200	3,2 10^{-10}	0,100	2,2 10^{-10}	1,1 10^{-10}	6,0 10^{-11}	3,4$10^{-11}$	2,9 10^{-11}
		M	0,200	4,6 10^{-10}	0,100	3,4 10^{-10}	1,7 10^{-10}	1,0 10^{-10}	6,4 10^{-11}	5,4 10^{-11}
Mn-54	312 d	F	0,200	5,2 10^{-9}	0,100	4,1 10^{-9}	2,2 10^{-9}	1,5 10^{-9}	9,9 10^{-10}	8,5 10^{-10}
		M	0,200	7,5 10^{-9}	0,100	6,2 10^{-9}	3,8 10^{-9}	2,4 10^{-9}	1,9 10^{-9}	1,5 10^{-9}
Mn-56	2,58 h	F	0,200	6,9 10^{-10}	0,100	4,9 10^{-10}	2,3 10^{-10}	1,4 10^{-10}	7,8 10^{-11}	6,4 10^{-11}
		M	0,200	1,1 10^{-9}	0,100	7,8 10^{-10}	3,7 10^{-10}	2,4 10^{-10}	1,5 10^{-10}	1,2 10^{-10}

Iron[a]

Fe-52	8,28 h	F	0,600	5,2 10^{-9}	0,100	3,6 10^{-9}	1,5 10^{-9}	8,9 10^{-10}	4,9 10^{-10}	3,9 10^{-10}
		M	0,200	5,8 10^{-9}	0,100	4,1 10^{-9}	1,9 10^{-9}	1,2 10^{-9}	7,4 10^{-10}	6,0 10^{-10}
		S	0,020	6,0 10^{-9}	0,010	4,2 10^{-9}	2,0 10^{-9}	1,3 10^{-9}	7,7 10^{-10}	6,3 10^{-10}
Fe-55	2,70 a	F	0,600	4,2 10^{-9}	0,100	3,2 10^{-9}	2,2 10^{-9}	1,4 10^{-9}	9,4 10^{-10}	7,7 10^{-10}
		M	0,200	1,9 10^{-9}	0,100	1,4 10^{-9}	9,9 10^{-10}	6,2 10^{-10}	4,4 10^{-10}	3,8 10^{-10}
		S	0,020	1,0 10^{-9}	0,010	8,5 10^{-10}	5,0 10^{-10}	2,9 10^{-10}	2,0 10^{-10}	1,8 10^{-10}
Fe-59	44,5 d	F	0,600	2,1 10^{-8}	0,100	1,3 10^{-8}	7,1 10^{-9}	4,2 10^{-9}	2,6 10^{-9}	2,2 10^{-9}
		M	0,200	1,8 10^{-8}	0,100	1,3 10^{-8}	7,9 10^{-9}	5,5 10^{-9}	4,6 10^{-9}	3,7 10^{-9}
		S	0,020	1,7 10^{-8}	0,010	1,3 10^{-8}	8,1 10^{-9}	5,8 10^{-9}	5,1 10^{-9}	4,0 10^{-9}
Fe-60	1,00 10^{5} a	F	0,600	4,4 10^{-7}	0,100	3,9 10^{-7}	3,5 10^{-7}	3,2 10^{-7}	2,9 10^{-7}	2,8 10^{-7}
		M	0,200	2,0 10^{-7}	0,100	1,7 10^{-7}	1,6 10^{-7}	1,4 10^{-7}	1,4 10^{-7}	1,4 10^{-7}
		S	0,020	9,3 10^{-8}	0,010	8,8 10^{-8}	6,7 10^{-8}	5,2 10^{-8}	4,9 10^{-8}	4,9 10^{-8}

Cobalt[b]

Co-55	17,5 h	F	0,600	2,2 10^{-9}	0,100	1,8 10^{-9}	9,0 10^{-10}	5,5 10^{-10}	3,1 10^{-10}	2,7 10^{-10}
		M	0,200	4,1 10^{-9}	0,100	3,1 10^{-9}	1,5 10^{-9}	9,8 10^{-10}	6,1 10^{-10}	5,0 10^{-10}
		S	0,020	4,6 10^{-9}	0,010	3,3 10^{-9}	1,6 10^{-9}	1,1 10^{-9}	6,6 10^{-10}	5,3 10^{-10}

Co-56	78,7 d	F	0,600	1,4 10^{-8}	0,100	1,0 10^{-8}	5,5 10^{-9}	3,5 10^{-9}	2,2 10^{-9}	1,8 10^{-9}
		M	0,200	2,5 10^{-8}	0,100	2,1 10^{-8}	1,1 10^{-8}	7,4 10^{-9}	5,8 10^{-9}	4,8 10^{-9}
		S	0,020	2,9 10^{-8}	0,010	2,5 10^{-8}	1,5 10^{-8}	1,0 10^{-8}	8,0 10^{-9}	6,7 10^{-9}
Co-57	271 d	F	0,600	1,5 10^{-9}	0,100	1,1 10^{-9}	5,6 10^{-10}	3,7 10^{-10}	2,3 10^{-10}	1,9 10^{-10}
		M	0,200	2,8 10^{-9}	0,100	2,2 10^{-9}	1,3 10^{-9}	8,5 10^{-10}	6,7 10^{-10}	5,5 10^{-10}
		S	0,020	4,4 10^{-9}	0,010	3,7 10^{-9}	2,3 10^{-9}	1,5 10^{-9}	1,2 10^{-9}	1,0 10^{-9}
Co-58	70.8 d	F	0,600	4,0 10^{-9}	0,100	3,0 10^{-9}	1,6 10^{-9}	1,0 10^{-9}	6,4 10^{-10}	5, 10^{-10}
		M	0,200	7,3 10^{-9}	0,100	6,5 10^{-9}	3,5 10^{-9}	2,4 10^{-9}	2,0 10^{-9}	1,6 10^{-9}
		S	0,020	9,0 10^{-9}	0,010	7,5 10^{-9}	4,5 10^{-9}	3,1 10^{-9}	2,6 10^{-9}	2,1 10^{-9}
Co-58m	9,15 h	F	0,600	4,8 10^{-11}	0,100	3,6 10^{-11}	1,7 10^{-11}	1,1 10^{-11}	5,9 10^{-12}	5,2 10^{-12}
		M	0,200	1,1 10^{-10}	0,100	7,6 10^{-11}	3,8 10^{-11}	2,4 10^{-11}	1,6 10^{-11}	1,3 10^{-11}
		S	0,020	1,3 10^{-10}	0,010	9,0 10^{-11}	4,5 10^{-11}	3,0 10^{-11}	2,0 10^{-11}	1,7 10^{-11}
Co-60	5,27 a	F	0,600	3,0 10^{-8}	0,100	2,3 10^{-8}	1,4 10^{-8}	8,9 10^{-9}	6,1 10^{-9}	5,2 10^{-9}
		M	0,200	4,2 10^{-8}	0,100	3,4 10^{-8}	2,1 10^{-8}	1,5 10^{-8}	1,2 10^{-8}	1,0 10^{-8}
		S	0,020	9,2 10^{-8}	0,010	8,6 10^{-8}	5,9 10^{-8}	4,0 10^{-8}	3,4 10^{-8}	3,1 10^{-8}
Co-60m	0,174 h	F	0,600	4,4 10^{-12}	0,100	2,8 10^{-12}	1,5 10^{-12}	1,0 10^{-12}	8,3 10^{-12}	6,9 10^{-12}
		M	0,200	7,1 10^{-12}	0,100	4,7 10^{-12}	2,7 10^{-12}	1,8 10^{-12}	1,5 10^{-12}	1,2 10^{-12}
		S	0,020	7,6 10^{-12}	0,010	5,1 10^{-12}	2,9 10^{-12}	2,0 10^{-12}	1,7 10^{-12}	1,4 10^{-12}
Co-61	1,65 h	F	0,600	2,1 10^{-10}	0,100	1,4 10^{-10}	6,0 10^{-11}	3,8 10^{-11}	2,2 10^{-11}	1,9 10^{-11}
		M	0,200	4,0 10^{-10}	0,100	2,7 10^{-10}	1,2 10^{-10}	8,2 10^{-11}	5,7 10^{-11}	4,7 10^{-11}
		S	0,020	4,3 10^{-10}	0,010	2,8 10^{-10}	1,3 10^{-10}	8,8 10^{-11}	6,1 10^{-11}	5,1 10^{-11}
Co-62m	0,232 h	F	0,600	1,4 10^{-10}	0,100	9,5 10^{-11}	4,5 10^{-11}	2,8 10^{-11}	1,7 10^{-11}	1,4 10^{-11}
		M	0,20	1,9 10^{-10}	0,10	1,3 10^{-10}	6,1	3,8	2,4 10^{-11}	2,0 10-

			0		0		10^{-11}	10^{-11}		11
		S	0,020	$2,0\ 10^{-10}$	0,010	$1,3\ 10^{-10}$	$6,3\ 10^{-11}$	$4,0\ 10^{-11}$	$2,5\ 10^{-11}$	$2,1\ 10^{-11}$
Nickel										
Ni-56	6,10 d	F	0,100	$3,3\ 10^{-9}$	0,050	$2,8\ 10^{-9}$	$1,5\ 10^{-9}$	$9,3\ 10^{-10}$	$5,8\ 10^{-10}$	$4,9\ 10^{-10}$
		M	0,100	$4,9\ 10^{-9}$	0,050	$4,1\ 10^{-9}$	$2,3\ 10^{-9}$	$1,5\ 10^{-9}$	$1,1\ 10^{-9}$	$8,7\ 10^{-10}$
		S	0,020	$5,5\ 10^{-9}$	0,010	$4,6\ 10^{-9}$	$2,7\ 10^{-9}$	$1,8\ 10^{-9}$	$1,3\ 10^{-9}$	$1,0\ 10^{-9}$
Ni-57	1,50 d	F	0,100	$2,2\ 10^{-9}$	0,050	$1,8\ 10^{-9}$	$8,9\ 10^{-10}$	$5,5\ 10^{-10}$	$3,1\ 10^{-10}$	$2,5\ 10^{-10}$
		M	0,100	$3,6\ 10^{-9}$	0,050	$2,8\ 10^{-9}$	$1,5\ 10^{-9}$	$9,5\ 10^{-10}$	$6,2\ 10^{-10}$	$5,0\ 10^{-10}$
		S	0,020	$3,9\ 10^{-9}$	0,010	$3,0\ 10^{-9}$	$1,5\ 10^{-9}$	$1,0\ 10^{-9}$	$6,6\ 10^{-10}$	$5,3\ 10^{-10}$
Ni-59	$7,50\ 10^{4}$ a	F	0,100	$9,6\ 10^{-10}$	0,050	$8,1\ 10^{-10}$	$4,5\ 10^{-10}$	$2,8\ 10^{-10}$	$1,9\ 10^{-10}$	$1,8\ 10^{-10}$
		M	0,100	$7,9\ 10^{-10}$	0,050	$6,2\ 10^{-10}$	$3,4\ 10^{-10}$	$2,1\ 10^{-10}$	$1,4\ 10^{-10}$	$1,3\ 10^{-10}$
		S	0,020	$1,7\ 10^{-9}$	0,010	$1,5\ 10^{-9}$	$9,5\ 10^{-10}$	$5,9\ 10^{-10}$	$4,6\ 10^{-10}$	$4,4\ 10^{-10}$
Ni-63	96,0 a	F	0,100	$2,3\ 10^{-9}$	0,050	$2,0\ 10^{-9}$	$1,1\ 10^{-9}$	$6,7\ 10^{-10}$	$4,6\ 10^{-10}$	$4,4\ 10^{-10}$
		M	0,100	$2,4\ 10^{-9}$	0,050	$1,9\ 10^{-9}$	$1,1\ 10^{-9}$	$7,0\ 10^{-10}$	$5,3\ 10^{-10}$	$4,8\ 10^{-10}$
		S	0,020	$4,8\ 10^{-9}$	0,010	$4,3\ 10^{-9}$	$2,7\ 10^{-9}$	$1,7\ 10^{-9}$	$1,3\ 10^{-9}$	$1,3\ 10^{-9}$
Ni-65	2,52 h	F	0,100	$4,4\ 10^{-10}$	0,050	$3,0\ 10^{-10}$	$1,4\ 10^{-10}$	$8,5\ 10^{-11}$	$4,9\ 10^{-11}$	$4,1\ 10^{-11}$
		M	0,100	$7,7\ 10^{-10}$	0,050	$5,2\ 10^{-10}$	$2,4\ 10^{-10}$	$1,6\ 10^{-10}$	$1,0\ 10^{-10}$	$8,5\ 10^{-11}$
		S	0,020	$8,1\ 10^{-10}$	0,010	$5,5\ 10^{-10}$	$2,6\ 10^{-10}$	$1,7\ 10^{-10}$	$1,1\ 10^{-10}$	$9,0\ 10^{-11}$
Ni-66	2,27 d	F	0,100	$5,7\ 10^{-9}$	0,050	$3,8\ 10^{-9}$	$1,6\ 10^{-9}$	$1,0\ 10^{-9}$	$5,1\ 10^{-10}$	$4,2\ 10^{-10}$
		M	0,100	$1,3\ 10^{-8}$	0,050	$9,4\ 10^{-9}$	$4,5\ 10^{-9}$	$2,9\ 10^{-9}$	$2,0\ 10^{-9}$	$1,6\ 10^{-9}$
		S	0,020	$1,5\ 10^{-8}$	0,010	$1,0\ 10^{-8}$	$5,0\ 10^{-9}$	$3,2\ 10^{-9}$	$2,2\ 10^{-9}$	$1,8\ 10^{-9}$
Copper										
Cu-60	0,387 h	F	1,000	$2,1\ 10^{-10}$	0,500	$1,6\ 10^{-10}$	$7,5\ 10^{-11}$	$4,6\ 10^{-11}$	$2,8\ 10^{-11}$	$2,3\ 10^{-11}$
		M	1,00	$3,0\ 10^{-10}$	0,50	$2,2\ 10^{-10}$	1,0	6,5	$4,0\ 10^{-11}$	$3,3\ 10^{-}$

			0		0		10^{-10}	10^{-11}		11
		S	1,000	3,1 10^{-10}	0,500	2,2 10^{-10}	1,1 10^{-10}	6,7 10^{-11}	4,2 10^{-11}	3,4 10^{-11}
Cu-61	3,41 h	F	1,000	3,1 10^{-10}	0,500	2,7 10^{-10}	1,3 10^{-10}	7,9 10^{-11}	4,5 10^{-11}	3,7 10^{-11}
		M	1,000	4,9 10^{-10}	0,500	4,4 10^{-10}	2,1 10^{-10}	1,4 10^{-10}	9,1 10^{-11}	7,4 10^{-11}
		S	1,000	5,1 10^{-10}	0,500	4,5 10^{-10}	2,2 10^{-10}	1,4 10^{-10}	9,6 10^{-11}	7,8 10^{-11}
Cu-64	12,7 h	F	1,000	2,8 10^{-10}	0,500	2,7 10^{-10}	1,2 10^{-10}	7,6 10^{-11}	4,2 10^{-11}	3,5 10^{-11}
		M	1,000	5,5 10^{-10}	0,500	5,4 10^{-10}	2,7 10^{-10}	1,9 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
		S	1,000	5,8 10^{-10}	0,500	5,7 10^{-10}	2,9 10^{-10}	2,0 10^{-10}	1,3 10^{-10}	1,2 10^{-10}
Cu-67	2,58 d	F	1,000	9,5 10^{-10}	0,500	8,0 10^{-10}	3,5 10^{-10}	2,2 10^{-10}	1,2 10^{-10}	1,0 10^{-10}
		M	1,000	2,3 10^{-9}	0,500	2,0 10^{-9}	1,1 10^{-9}	8,1 10^{-10}	6,9 10^{-10}	5,5 10^{-10}
		S	1,000	2,5 10^{-9}	0,500	2,1 10^{-9}	1,2 10^{-9}	8,9 10^{-10}	7,7 10^{-10}	6,1 10^{-10}
Zinc										
Zn-62	9,26 h	F	1,000	1,7 10^{-9}	0,500	1,7 10^{-9}	7,7 10^{-10}	4,6 10^{-10}	2,5 10^{-10}	2,0 10^{-10}
		M	0,200	4,5 10^{-9}	0,100	3,5 10^{-9}	1,6 10^{-9}	1,0 10^{-9}	6,0 10^{-10}	5,0 10^{-10}
		S	0,020	5,1 10^{-9}	0,010	3,4 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	6,6 10^{-10}	5,5 10^{-10}
Zn-63	0,635 h	F	1,000	2,1 10^{-10}	0,500	1,4 10^{-10}	6,5 10^{-11}	4,0 10^{-11}	2,4 10^{-11}	2,0 10^{-11}
		M	0,200	3,4 10^{-10}	0,100	2,3 10^{-10}	1,0 10^{-10}	6,6 10^{-11}	4,2 10^{-11}	3,5 10^{-11}
		S	0,020	3,6 10^{-10}	0,010	2,4 10^{-10}	1,1 10^{-10}	6,9 10^{-11}	4,4 10^{-11}	3,7 10^{-11}
Zn-65	244 d	F	1,000	1,5 10^{-8}	0,500	1,0 10^{-8}	5,7 10^{-9}	3,8 10^{-9}	2,5 10^{-9}	2,2$10^{-9}$
		M	0,200	8,5 10^{-9}	0,100	6,5 10^{-9}	3,7 10^{-9}	2,4 10^{-9}	1,9 10^{-9}	1,6 10^{-9}
		S	0,020	7,6 10^{-9}	0,010	6,7 10^{-9}	4,4 10^{-9}	2,9 10^{-9}	2,4 10^{-9}	2,0 10^{-9}
Zn-69	0,950 h	F	1,000	1,1 10^{-10}	0,500	7,4 10^{-11}	3,2 10^{-11}	2,1 10^{-11}	1,2 10^{-11}	1,1 10^{-11}
		M	0,200	2,2 10^{-10}	0,100	1,4 10^{-10}	6,5 10^{-11}	4,4 10^{-11}	3,1 10^{-11}	2,6 10^{-11}

		S	0,020	2,3 10^{-10}	0,010	1,5 10^{-10}	6,9 10^{-11}	4,7 10^{-11}	3,4 10^{-11}	2,8 10^{-11}
Zn-69m	13,8 h	F	1,000	6,6 10^{-10}	0,500	6,7 10^{-10}	3,0 10^{-10}	1,8 10^{-10}	9,9 10^{-11}	8,2 10^{-11}
		M	0,200	2,1 10^{-9}	0,100	1,5 10^{-9}	7,5 10^{-10}	5,0 10^{-10}	3,0 10^{-10}	2,4 10^{-10}
		S	0,020	2,2 10^{-9}	0,010	1,7 10^{-9}	8,2 10^{-10}	5,4 10^{-10}	3,3 10^{-10}	2,7 10^{-10}
Zn-71m	3,92 h	F	1,000	6,2 10^{-10}	0,500	5,5 10^{-10}	2,6 10^{-10}	1,6 10^{-10}	9,1 10^{-11}	7,4 10^{-11}
		M	0,200	1,3 10^{-9}	0,100	9,4 10^{-10}	4,6 10^{-10}	2,9 10^{-10}	1,9 10^{-10}	1,5 10^{-10}
		S	0,020	1,4 10^{-9}	0,010	1,0 10^{-9}	4,9 10^{-10}	3,1 10^{-10}	2,0 10^{-10}	1,6 10^{-10}
Zn-72	1,94 d	F	1,000	4,3 10^{-9}	0,500	3,5 10^{-9}	1,7 10^{-9}	1,0 10^{-9}	5,9 10^{-10}	4,9 10^{-10}
		M	0,200	8,8 10^{-9}	0,100	6,5 10^{-9}	3,4 10^{-9}	2,3 10^{-9}	1,5 10^{-9}	1,2 10^{-9}
		S	0,020	9,7 10^{-9}	0,010	7,0 10^{-9}	3,6 10^{-9}	2,4 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Gallium										
Ga-65	0,253 h	F	0,010	1,1 10^{-10}	0,001	7,3 10^{-11}	3,4 10^{-11}	2,1 10^{-11}	1,3 10^{-11}	1,1 10^{-11}
		M	0,010	1,6 10^{-10}	0,001	1,1 10^{-10}	4,8 10^{-11}	3,1 10^{-11}	2,0 10^{-11}	1,7 10^{-11}
Ga-66	9,40 h	F	0,010	2,8 10^{-9}	0,001	2,0 10^{-9}	9,2 10^{-10}	5,7 10^{-10}	3,0 10^{-10}	2,5 10^{-10}
		M	0,010	4,5 10^{-9}	0,001	3,1 10^{-9}	1,5 10^{-9}	9,2 10^{-10}	5,3 10^{-10}	4,4 10^{-10}
Ga-67	3,26 d	F	0,010	6,4 10^{-10}	0,001	4,6 10^{-10}	2,2 10^{-10}	1,4 10^{-10}	7,7 10^{-11}	6,4 10^{-11}
		M	0,010	1,4 10^{-9}	0,001	1,0 10^{-9}	5,0 10^{-10}	3,6 10^{-10}	3,0 10^{-10}	2,4 10^{-10}
Ga-68	1,13 h	F	0,010	2,9 10^{-10}	0,001	1,9 10^{-10}	8,8 10^{-11}	5,4 10^{-11}	3,1 10^{-11}	2,6 10^{-11}
		M	0,010	4,6 10^{-10}	0,001	3,1 10^{-10}	1,4 10^{-10}	9,2 10^{-11}	5,9 10^{-11}	4,9 10^{-11}
Ga-70	0,353 h	F	0,010	9,5 10^{-11}	0,001	6,0 10^{-11}	2,6 10^{-11}	1,6 10^{-11}	1,0 10^{-11}	8,8 10^{-12}
		M	0,010	1,5 10^{-10}	0,001	9,6 10^{-11}	4,3 10^{-11}	2,8 10^{-11}	1,8 10^{-11}	1,6 10^{-11}
Ga-72	14,1 h	F	0,010	2,9 10^{-9}	0,001	2,2 10^{-9}	1,0 10^{-9}	6,4 10^{-10}	6,5 10^{-10}	2,9 10^{-10}
		M	0,010	4,5 10^{-9}	0,001	3,3 10^{-9}	1,6 10^{-9}	1,0 10^{-9}	6,5 10^{-10}	5,3 10^{-10}

Ga-73	4,91 h	F	0,010	6,7 10^{-10}	0,001	4,5 10^{-10}	2,0 10^{-10}	1,2 10^{-10}	6,4 10^{-11}	5,4 10^{-11}
		M	0,010	1,2 10^{-9}	0,001	8,4 10^{-10}	4,0 10^{-10}	2,6 10^{-10}	1,7 10^{-10}	1,4 10^{-10}
Germanium										
Ge-66	2,27 h	F	1,000	4,5 10^{-10}	1,000	3,5 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	6,7 10^{-11}	5,4 10^{-11}
		M	1,000	6,4 10^{-10}	1,000	4,8 10^{-10}	2,5 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	9,1 10^{-11}
Ge-67	0,312 h	F	1,000	1,7 10^{-10}	1,000	1,1 10^{-10}	4,9 10^{-11}	3,1 10^{-11}	1,8 10^{-11}	1,5 10^{-11}
		M	1,000	2,5 10^{-10}	1,000	1,6 10^{-10}	7,3 10^{-11}	4,6 10^{-11}	2,9 10^{-11}	2,5 10^{-11}
Ge-68	288 d	F	1,000	5,4 10^{-9}	1,000	3,8 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	6,3 10^{-10}	5,2 10^{-10}
		M	1,000	6,0 10^{-8}	1,000	5,0 10^{-8}	3,0 10^{-8}	2,0 10^{-8}	1,6 10^{-8}	1,4 10^{-8}
Ge-69	1,63 d	F	1,000	1,2 10^{-9}	1,000	9,0 10^{-10}	4,6 10^{-10}	2,8 10^{-10}	1,7 10^{-10}	1,3 10^{-10}
		M	1,000	1,8 10^{-9}	1,000	1,4 10^{-9}	7,4 10^{-10}	4,9 10^{-10}	3,6 10^{-10}	2,9 10^{-10}
Ge-71	11,8 d	F	1,000	6,0 10^{-11}	1,000	4,3 10^{-11}	2,0 10^{-11}	1,1 10^{-11}	6,1 10^{-12}	4,8 10^{-12}
		M	1,000	1,2 10^{-10}	1,000	8,6 10^{-11}	4,1 10^{-11}	2,4 10^{-11}	1,3 10^{-11}	1,1 10^{-11}
Ge-75	1,38 h	F	1,000	1,6 10^{-10}	1,000	1,0 10^{-10}	4,3 10^{-11}	2,8 10^{-11}	1,7 10^{-11}	1,5 10^{-11}
		M	1,000	2,9 10^{-10}	1,000	1,9 10^{-10}	8,9 10^{-11}	6,1 10^{-11}	4,4 10^{-11}	3,6 10^{-11}
Ge-77	11,3 h	F	1,000	1,3 10^{-10}	1,000	9,5 10^{-10}	4,7 10^{-10}	2,9 10^{-10}	1,7 10^{-10}	3,6 10^{-11}
		M	1,000	2,3 10^{-10}	1,000	1,7 10^{-9}	8,8 10^{-10}	6,0 10^{-10}	4,5 10^{-10}	3,7 10^{-10}
Ge-78	1,45 h	F	1,000	4,3 10^{-10}	1,000	2,9 10^{-10}	1,4 10^{-10}	8,9 10^{-11}	5,5 10^{-11}	4,5 10^{-11}
		M	1,000	7,3 10^{-10}	1,000	5,0 10^{-10}	2,5 10^{-10}	1,6 10^{-10}	1,2 10^{-10}	9,5 10^{-11}
Arsenic										
As-69	0,253 h	M	1,000	2,1 10^{-10}	0,500	1,4 10^{-10}	6,3 10^{-11}	4,0 10^{-11}	2,5 10^{-11}	2,1 10^{-11}
As-70	0,876 h	M	1,000	5,7 10^{-10}	0,500	4,3 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	8,3 10^{-11}	6,7 10^{-11}
As-71	2,70 d	M	1,00	2,2 10^{-9}	0,50	1,9 10^{-9}	1,0	6,8	5,0 10^{-10}	4,0 10^{-}

			0		0		10^{-9}	10^{-10}		10
As-72	1,08 d	M	1,000	5,9 10^{-9}	0,500	5,7 10^{-9}	2,7 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	9,0 10^{-10}
As-73	80,3 d	M	1,000	5,4 10^{-9}	0,500	4,0 10^{-9}	2,3 10^{-9}	1,5 10^{-9}	1,2 10^{-9}	1,0 10^{-9}
As-74	17,8 d	M	1,000	1,1 10^{-8}	0,500	8,4 10^{-9}	4,7 10^{-9}	3,3 10^{-9}	2,6 10^{-9}	2,1 10^{-9}
As-76	1,10 d	M	1,000	5,1 10^{-9}	0,500	4,6 10^{-9}	2,2 10^{-9}	1,4 10^{-9}	8,8 10^{-10}	7,4 10^{-10}
As-77	1,62 d	M	1,000	2,2 10^{-9}	0,500	1,7 10^{-9}	8,9 10^{-10}	6,2 10^{-10}	5,0 10^{-10}	3,9 10^{-10}
As-78	1,51 h	M	1,000	8,0 10^{-10}	0,500	5,8 10^{-10}	2,7 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	8,9 10^{-11}
Selenium										
Se-70	0,683 h	F	1,000	3,9 10^{-10}	0,800	3,0 10^{-10}	1,5 10^{-10}	9,0 10^{-11}	5,1 10^{-11}	4,2 10^{-11}
		M	0,200	6,5 10^{-10}	0,100	4,7 10^{-10}	2,3 10^{-10}	1,4 10^{-10}	8,9 10^{-11}	7,3 10^{-11}
		S	0,020	6,8 10^{-10}	0,010	4,8 10^{-10}	2,3 10^{-10}	1,5 10^{-10}	9,4 10^{-11}	7,6 10^{-11}
Se-73	7,15 h	F	1,000	7,7 10^{-10}	0,800	6,5 10^{-10}	3,3 10^{-10}	2,1 10^{-10}	1,0 10^{-10}	8,0 10^{-11}
		M	0,200	1,6 10^{-9}	0,100	1,2 10^{-9}	5,9 10^{-10}	3,8 10^{-10}	2,4 10^{-10}	1,9 10^{-10}
		S	0,020	1,8 10^{-9}	0,010	1,3 10^{-9}	6,3 10^{-10}	4,0 10^{-10}	2,6 10^{-10}	2,1 10^{-10}
Se-73m	0,650 h	F	1,000	9,3 10^{-11}	0,800	7,2 10^{-11}	3,5 10^{-11}	2,3 10^{-11}	1,1 10^{-11}	9,2 10^{-12}
		M	0,200	1,8 10^{-10}	0,100	1,3 10^{-10}	6,1 10^{-11}	3,9 10^{-11}	2,5 10^{-11}	2,0 10^{-11}
		S	0,020	1,9 10^{-10}	0,100	1,3 10^{-10}	6,5 10^{-11}	4,1 10^{-11}	2,6 10^{-11}	2,2 10^{-11}
Se-75	120 d	F	1,000	7,8 10^{-9}	0,800	6,0 10^{-9}	3,4 10^{-9}	2,5 10^{-9}	1,2 10^{-9}	1,010^{-9}
		M	0,200	5,4 10^{-9}	0,100	4,5 10^{-9}	2,5 10^{-9}	1,7 10^{-9}	1,3 10^{-9}	1,1 10^{-9}
		S	0,020	5,6 10^{-9}	0,010	4,7 10^{-9}	2,9 10^{-9}	2,0 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Se-79	6,50 10^{4} a	F	1,000	1,6 10^{-8}	0,800	1,3 10^{-8}	7,7 10^{-9}	5,6 10^{-9}	1,5 10^{-9}	1,1 10^{-9}
		M	0,200	1,4 10^{-8}	0,100	1,1 10^{-8}	6,9 10^{-9}	4,9 10^{-9}	3,3 10^{-9}	2,6 10^{-9}
		S	0,020	2,3 10^{-8}	0,010	2,0 10^{-8}	1,3 10^{-8}	8,7 10^{-9}	7,6 10^{-9}	6,8 10^{-9}

Se-81	0,308 h	F	1,000	8,6 10^{-11}	0,800	5,4 10^{-11}	2,3 10^{-11}	1,5 10^{-11}	9,2 10^{-12}	8,0 10^{-12}
		M	0,200	1,3 10^{-10}	0,100	8,5 10^{-11}	3,8 10^{-11}	2,5 10^{-11}	1,6 10^{-11}	1,4 10^{-11}
		S	0,020	1,4 10^{-10}	0,010	8,9 10^{-11}	3,9 10^{-11}	2,6 10^{-11}	1,7 10^{-11}	1,5 10^{-11}
Se-81m	0,954 h	F	1,000	1,8 10^{-10}	0,800	1,2 10^{-10}	5,4 10^{-11}	3,4 10^{-11}	1,9 10^{-11}	1,6 10^{-11}
		M	0,200	3,8 10^{-10}	0,100	2,5 10^{-10}	1,2 10^{-10}	8,0 10^{-11}	5,8 10^{-11}	4,7 10^{-11}
		S	0,020	4,1 10^{-10}	0,010	2,7 10^{-10}	1,3 10^{-10}	8,5 10^{-11}	6,2 10^{-11}	5,1 10^{-11}
Se-83	0,375 h	F	1,000	1,7 10^{-10}	0,800	1,2 10^{-10}	5,8 10^{-11}	3,6 10^{-11}	2,1 10^{-11}	1,8 10^{-11}
		M	0,200	2,7 10^{-10}	0,100	1,9 10^{-10}	9,2 10^{-11}	5,9 10^{-11}	3,9 10^{-11}	3,2 10^{-11}
		S	0,020	2,8 10^{-10}	0,010	2,0 10^{-10}	9,6 10^{-11}	6,2 10^{-11}	4,1 10^{-11}	3,4 10^{-11}
Bromine										
Br-74	0,422 h	F	1,000	2,5 10^{-10}	1,000	1,8 10^{-10}	8,6 10^{-11}	5,3 10^{-11}	3,2 10^{-11}	2,6 10^{-11}
		M	1,000	3,6 10^{-10}	1,000	2,5 10^{-10}	1,2 10^{-10}	7,5 10^{-11}	4,6 10^{-11}	3,8 10^{-11}
Br-74m	0,691 h	F	1,000	4,0 10^{-10}	1,000	2,8 10^{-10}	1,3 10^{-10}	8,1 10^{-11}	4,8 10^{-11}	3,9 10^{-11}
		M	1,000	5,9 10^{-10}	1,000	4,1 10^{-10}	1,9 10^{-10}	1,2 10^{-10}	7,5 10^{-11}	6,2 10^{-11}
Br-75	1,63 h	F	1,000	2,9 10^{-10}	1,000	2,1 10^{-10}	9,7 10^{-11}	5,9 10^{-11}	3,5 10^{-11}	2,9 10^{-11}
		M	1,000	4,5 10^{-10}	1,000	3,1 10^{-10}	1,5 10^{-10}	9,7 10^{-11}	6,5 10^{-11}	5,3 10^{-11}
Br-76	16,2 h	F	1,000	2,2 10^{-9}	1,000	1,7 10^{-9}	8,4 10^{-10}	5,1 10^{-10}	3,0 10^{-10}	2,4 10^{-10}
		M	1,000	2,0 10^{-9}	1,000	2,3 10^{-9}	1,2 10^{-9}	7,5 10^{-10}	5,0 10^{-10}	4,1 10^{-10}
Br-77	2,33 d	F	1,000	5,3 10^{-10}	1,000	4,4 10^{-10}	2,2 10^{-10}	1,3 10^{-10}	7,7 10^{-11}	6,2 10^{-11}
		M	1,000	6,3 10^{-10}	1,000	5,1 10^{-10}	2,7 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	8,4 10^{-11}
Br-80	0,290 h	F	1,000	7,1 10^{-11}	1,000	4,4 10^{-11}	1,8 10^{-11}	1,2 10^{-11}	6,9 10^{-12}	5,9 10^{-12}
		M	1,000	1,1 10^{-10}	1,000	6,5 10^{-11}	2,8 10^{-11}	1,8 10^{-11}	1,1 10^{-11}	9,4 10^{-12}
Br-80m	4,42 h	F	1,000	4,3 10^{-10}	1,000	2,8 10^{-10}	1,2 10^{-10}	7,2 10^{-11}	4,0 10^{-11}	3,3 10^{-11}

		M	1,000	6,8 10^{-10}	1,000	4,5 10^{-10}	2,1 10^{-10}	1,4 10^{-10}	9,3 10^{-11}	7,6 10^{-11}
Br-82	1,47 d	F	1,000	2,7 10^{-9}	1,000	2,2 10^{-9}	1,2 10^{-9}	7,0 10^{-10}	4,2 10^{-10}	6,3 10^{-10}
		M	1,000	3,8 10^{-9}	1,000	3,0 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	7,9 10^{-10}	6,3 10^{-10}
Br-83	2,39 h	F	1,000	1,7 10^{-10}	1,000	1,1 10^{-10}	4,7 10^{-11}	3,0 10^{-11}	1,8 10^{-4}	1,6 10^{-11}
		M	1,000	3,5 10^{-10}	1,000	2,3 10^{-10}	1,1 10^{-10}	7,7 10^{-11}	5,9 10^{-11}	4,8 10^{-11}
Br-84	0,530 h	F	1,000	2,4 10^{-10}	1,000	1,6 10^{-10}	7,1 10^{-11}	4,4 10^{-11}	2,6 10^{-11}	2,2 10^{-11}
		M	1,000	3,7 10^{-10}	1,000	2,4 10^{-10}	1,1 10^{-10}	6,9 10^{-11}	4,4 10^{-11}	3,7 10^{-11}
Rubidium										
Rb-79	0,382 h	F	1,000	1,6 10^{-10}	1,000	1,1 10^{-10}	5,0 10^{-11}	3,2 10^{-11}	1,0 10^{-11}	1,6 10^{-11}
Rb-81	4,58 h	F	1,000	3,2 10^{-10}	1,000	2,5 10^{-10}	1,2 10^{-10}	7,1 10^{-11}	4,2 10^{-11}	3,4 10^{-11}
Rb-81m	0,533 h	F	1,000	6,2 10^{-11}	1,000	4,6 10^{-11}	2,2 10^{-11}	1,4 10^{-11}	8,5 10^{-12}	7,0 10^{-12}
Rb-82m	6,20 h	F	1,000	8,6 10^{-10}	1,000	7,3 10^{-10}	3,9 10^{-10}	2,3 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
Rb-83	86,2 d	F	1,000	4,9 10^{-9}	1,000	3,8 10^{-9}	2,0 10^{-9}	1,3 10^{-9}	7,9 10^{-10}	6,9 10^{-10}
Rb-84	32.8 d	F	1,000	8,6 10^{-9}	1,000	6,4 10^{-9}	3,1 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	1,0 10^{-9}
Rb-86	18,7 d	F	1,000	1,2 10^{-8}	1,000	7,7 10^{-9}	3,4 10^{-9}	2,0 10^{-9}	1,1 10^{-9}	9,3 10^{-10}
Rb-87	4,70 10^{10} a	F	1,000	6,0 10^{-9}	1,000	4,1 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	6,0 10^{-10}	5,0 10^{-10}
Rb-88	0,297 h	F	1,000	1,9 10^{-10}	1,000	1,2 10^{-10}	5,2 10^{-11}	3,2 10^{-11}	1,9 10^{-11}	1,6 10^{-11}
Rb-89	0,253 h	F	1,000	1,4 10^{-10}	1,000	9,3 10^{-11}	4,3 10^{-11}	2,7 10^{-11}	1,6 10^{-11}	1,4 10^{-11}
Strontium[(a)]										
Sr-80	1,67 h	F	0,600	7,8 10^{-10}	0,300	5,4 10^{-10}	2,4 10^{-10}	1,4 10^{-10}	7,9 10^{-11}	7,1 10^{-11}
		M	0,200	1,4 10^{-9}	0,100	9,0 10^{-10}	4,1 10^{-10}	2,5 10^{-10}	1,5 10^{-10}	1,3 10^{-10}
		S	0,020	1,5 10^{-9}	0,010	9,4 10^{-10}	4,3 10^{-10}	2,7 10^{-10}	1,6 10^{-10}	1,4 10^{-10}
Sr-81	0.425 h	F	0,600	2,1 10^{-10}	0,300	1,5 10^{-10}	6,7 10^{-11}	4,1 10^{-11}	2,4 10^{-11}	2,1 10^{-11}

		M	0,200	3,3 10^{-10}	0,100	2,2 10^{-10}	1,0 10^{-10}	6,6 10^{-11}	4,2 10^{-11}	3,5 10^{-11}
		S	0,020	3,4 10^{-10}	0,010	2,3 10^{-10}	1,1 10^{-10}	6,9 10^{-11}	4,4 10^{-11}	3,7 10^{-11}
Sr-82	25,0 d	F	0,600	2,8 10^{-8}	0,300	1,5 10^{-8}	6,6 10^{-9}	4,6 10^{-9}	3,2 10^{-9}	2,1 10^{-9}
		M	0,200	5,5 10^{-8}	0,100	4,0 10^{-8}	2,1 10^{-8}	1,4 10^{-8}	1,0 10^{-8}	8,9 10^{-9}
		S	0,020	6,1 10^{-8}	0,010	4,6 10^{-8}	2,5 10^{-8}	1,7 10^{-8}	1,2 10^{-8}	1,1 10^{-8}
Sr-83	1,35 d	F	0,600	1,4 10^{-9}	0,300	1,1 10^{-9}	5,5 10^{-10}	3,4 10^{-10}	2,0 10^{-10}	1,6 10^{-10}
		M	0,200	2,5 10^{-9}	0,100	1,9 10^{-9}	9,5 10^{-10}	6,0 10^{-10}	3,9 10^{-10}	3,1 10^{-10}
		S	0,020	2,8 10^{-9}	0,010	2,0 10^{-9}	1,0 10^{-9}	6,5 10^{-10}	4,2 10^{-10}	3,4 10^{-10}
Sr-85	64,8 d	F	0,600	4,4 10^{-9}	0,300	2,3 10^{-9}	1,1 10^{-9}	9,6 10^{-10}	8,3 10^{-10}	3,8 10^{-10}
		M	0,200	4,3 10^{-9}	0,100	3,1 10^{-9}	1,8 10^{-9}	1,2 10^{-9}	8,8 10^{-10}	6,4 10^{-10}
		S	0,020	4,4 10^{-9}	0,010	3,7 10^{-9}	2,2 10^{-9}	1,3 10^{-9}	1,0 10^{-9}	8,1 10^{-10}
Sr-85m	1,16 h	F	0,600	2,4 10^{-11}	0,300	1,9 10^{-11}	9,6 10^{-12}	6,0 10^{-12}	3,7 10^{-12}	2,9 10^{-12}
		M	0,200	3,1 10^{-11}	0,100	2,5 10^{-11}	1,3 10^{-11}	8,0 10^{-12}	5,1 10^{-12}	4,1 10^{-12}
		S	0,020	3,2 10^{-11}	0,010	2,6 10^{-11}	1,3 10^{-11}	8,3 10^{-12}	5,4 10^{-12}	4,3 10^{-12}
Sr-87m	2,80 h	F	0,600	9,7 10^{-11}	0,300	7,8 10^{-11}	3,8 10^{-11}	2,3 10^{-11}	1,3 10^{-11}	1,1 10^{-11}
		M	0,200	1,6 10^{-10}	0,100	1,2 10^{-10}	5,9 10^{-11}	3,8 10^{-11}	2,5 10^{-11}	2,0 10^{-11}
		S	0,020	1,7 10^{-10}	0,010	1,2 10^{-10}	6,2 10^{-11}	4,0 10^{-11}	2,6 10^{-11}	2,1 10^{-11}
Sr-89	50,5 d	F	0,600	1,5 10^{-8}	0,300	7,3 10^{-9}	3,2 10^{-9}	2,3 10^{-9}	1,7 10^{-9}	1,0 10^{-9}
		M	0,200	3,3 10^{-8}	0,100	2,4 10^{-8}	1,3 10^{-8}	9,1 10^{-9}	7,3 10^{-9}	6,1 10^{-9}
		S	0,020	3,9 10^{-8}	0,010	3,0 10^{-8}	1,7 10^{-8}	1,2 10^{-8}	9,3 10^{-9}	7,9 10^{-9}
Sr-90	29,1 a	F	0,600	1,3 10^{-7}	0,300	5,2 10^{-8}	3,1 10^{-8}	4,1 10^{-8}	5,3 10^{-8}	2,4 10^{-8}
		M	0,200	1,5 10^{-7}	0,100	1,1 10^{-7}	6,5 10^{-8}	5,1 10^{-8}	5,0 10^{-8}	3,6 10^{-8}
		S	0,02	4,2 10^{-7}	0,01	4,0 10^{-7}	2,7	1,8	1,6 10^{-7}	1,6 10-

			0		0		10^{-7}	10^{-7}		7
Sr-91	9,50 h	F	0,600	$1,4\ 10^{-9}$	0,300	$1,1\ 10^{-9}$	$5,2\ 10^{-10}$	$3,1\ 10^{-10}$	$1,7\ 10^{-10}$	$1,6\ 10^{-10}$
		M	0,200	$3,1\ 10^{-9}$	0,100	$2,2\ 10^{-9}$	$1,1\ 10^{-9}$	$6,9\ 10^{-10}$	$4,4\ 10^{-10}$	$3,7\ 10^{-10}$
		S	0,020	$3,5\ 10^{-9}$	0,010	$2,5\ 10^{-9}$	$1,2\ 10^{-9}$	$7,7\ 10^{-10}$	$4,9\ 10^{-10}$	$4,1\ 10^{-10}$
Sr-92	2,71 h	F	0,600	$9,0\ 10^{-10}$	0,300	$7,1\ 10^{-10}$	$3,3\ 10^{-10}$	$2,0\ 10^{-10}$	$1,0\ 10^{-10}$	$9,8\ 10^{-11}$
		M	0,200	$1,9\ 10^{-9}$	0,100	$1,4\ 10^{-9}$	$6,5\ 10^{-10}$	$4,1\ 10^{-10}$	$2,5\ 10^{-10}$	$2,1\ 10^{-10}$
		S	0,020	$2,2\ 10^{-9}$	0,010	$1,5\ 10^{-9}$	$7,0\ 10^{-10}$	$4,5\ 10^{-10}$	$2,7\ 10^{-10}$	$2,3\ 10^{-10}$
Yttrium										
Y-86	14,7 h	M	0,001	$3,7\ 10^{-9}$	$1,0\ 10^{-4}$	$2,9\ 10^{-9}$	$1,5\ 10^{-9}$	$9,3\ 10^{-10}$	$5,5\ 10^{-10}$	$4,5\ 10^{-10}$
		S	0,001	$3,8\ 10^{-9}$	$1,0\ 10^{-4}$	$3,0\ 10^{-9}$	$1,5\ 10^{-9}$	$9,6\ 10^{-10}$	$5,8\ 10^{-10}$	$4,7\ 10^{-10}$
Y-86m	0,800 h	M	0,001	$2,2\ 10^{-10}$	$1,0\ 10^{-4}$	$1,7\ 10^{-10}$	$8,7\ 10^{-11}$	$5,6\ 10^{-11}$	$3,4\ 10^{-11}$	$2,7\ 10^{-11}$
		S	0,001	$2,3\ 10^{-10}$	$1,0\ 10^{-4}$	$1,8\ 10^{-10}$	$9,0\ 10^{-11}$	$5,7\ 10^{-11}$	$3,5\ 10^{-11}$	$2,8\ 10^{-11}$
Y-87	3,35 d	M	0,001	$2,7\ 10^{-9}$	$1,0\ 10^{-4}$	$2,1\ 10^{-9}$	$1,1\ 10^{-9}$	$7,0\ 10^{-10}$	$4,7\ 10^{-10}$	$3,7\ 10^{-10}$
		S	0,001	$2,8\ 10^{-9}$	$1,0\ 10^{-4}$	$2,2\ 10^{-9}$	$1,1\ 10^{-9}$	$7,3\ 10^{-10}$	$5,0\ 10^{-10}$	$3,9\ 1^{-10}$
Y-88	107 d	M	0,001	$1,9\ 10^{-8}$	$1,0\ 10^{-4}$	$1,6\ 10^{-8}$	$1,0\ 10^{-8}$	$6,7\ 10^{-9}$	$4,9\ 10^{-9}$	$4,1\ 10^{-9}$
		S	0,001	$2,0\ 10^{-8}$	$1,0\ 10^{-4}$	$1,7\ 10^{-8}$	$9,8\ 10^{-9}$	$6,6\ 10^{-9}$	$5,4\ 10^{-9}$	$4,4\ 10^{-9}$
Y-90	2,67 d	M	0,001	$1,3\ 10^{-8}$	$1,0\ 10^{-4}$	$8,4\ 10^{-9}$	$4,0\ 10^{-9}$	$2,6\ 10^{-9}$	$1,7\ 10^{-9}$	$1,4\ 10^{-9}$
		S	0,001	$1,3\ 10^{-8}$	$1,0\ 10^{-4}$	$8,8\ 10^{-9}$	$4,2\ 10^{-9}$	$2,7\ 10^{-9}$	$1,8\ 10^{-9}$	$1,5\ 10^{-9}$
Y-90m	3,19 h	M	0,001	$7,2\ 10^{-10}$	$1,0\ 10^{-4}$	$5,7\ 10^{-10}$	$2,8\ 10^{-10}$	$1,8\ 10^{-10}$	$1,1\ 10^{-10}$	$9,5\ 10^{-11}$
		S	0,001	$7,5\ 10^{-10}$	$1,0\ 10^{-4}$	$6,0\ 10^{-10}$	$2,9\ 10^{-10}$	$1,9\ 10^{-10}$	$1,2\ 10^{-10}$	$1,0\ 10^{-10}$
Y-91	58.5 d	M	0,001	$3,9\ 10^{-8}$	$1,0\ 10^{-4}$	$3,0\ 10^{-8}$	$1,6\ 10^{-8}$	$1,1\ 10^{-8}$	$8,4\ 10^{-9}$	$7,1\ 10^{-9}$
		S	0,001	$4,3\ 10^{-8}$	$1,0\ 10^{-4}$	$3,4\ 10^{-8}$	$1,9\ 10^{-8}$	$1,3\ 10^{-8}$	$1,0\ 10^{-8}$	$8,9\ 10^{-9}$
Y-91m	0.828 h	M	0,001	$7,0\ 10^{-11}$	$1,0\ 10^{-4}$	$5,5\ 10^{-11}$	$2,9\ 10^{-11}$	$1,8\ 10^{-11}$	$1,2\ 10^{-11}$	$1,0\ 10^{-11}$

		S	0,001	7,4 10^{-11}	1,0 10^{-4}	5,9 10^{-11}	3,1 10^{-11}	2,0 10^{-11}	1,4 10^{-11}	1,1 10^{-11}
Y-92	3,54 h	M	0,001	1,8 10^{-9}	1,0 10^{-4}	1,2 10^{-9}	5,3 10^{-10}	3,3 10^{-10}	2,0 10^{-10}	1,7 10^{-10}
		S	0,001	1,9 10^{-9}	1,0 10^{-4}	1,2 10^{-9}	5,5 10^{-10}	3,5 10^{-10}	2,1 10^{-10}	1,8 10^{-10}
Y-93	10,1 h	M	0,001	4,4 10^{-9}	1,0 10^{-4}	2,9 10^{-9}	1,3 10^{-9}	8,1 10^{-10}	4,7 10^{-10}	4,0 10^{-10}
		S	0,001	4,6 10^{-9}	1,0 10^{-4}	3,0 10^{-9}	1,4 10^{-9}	8,5 10^{-10}	5,0 10^{-10}	4,2 10^{-10}
Y-94	0,318 h	M	0,001	2,8 10^{-10}	1,0 10^{-4}	1,8 10^{-10}	8,1 10^{-11}	5,0 10^{-11}	3,1 10^{-11}	2,7 10^{-11}
		S	0,001	2,9 10^{-10}	1,0 10^{-4}	1,9 10^{-10}	8,4 10^{-11}	5,2 10^{-11}	3,3 10^{-11}	2,8 10^{-11}
Y-95	0,178 h	M	0,001	1,5 10^{-10}	1,0 10^{-4}	9,8 10^{-11}	4,4 10^{-11}	2,8 10^{-11}	1,8 10^{-11}	1,5 10^{-11}
		S	0,001	1,6 10^{-10}	1,0 10^{-4}	1,0 10^{-10}	4,5 10^{-11}	2,9 10^{-11}	1,8 10^{-11}	1,6 10^{-11}

Zirconium

Zr-86	16,5 h	F	0,020	2,4 10^{-9}	0,002	1,9 10^{-9}	9,5 10^{-10}	5,9 10^{-10}	3,4 10^{-10}	2,7 10^{-10}
		M	0,020	3,4 10^{-9}	0,002	2,6 10^{-9}	1,3 10^{-9}	8,4 10^{-10}	5,2 10^{-10}	4,2 10^{-10}
		S	0,020	3,5 10^{-9}	0,002	2,7 10^{-9}	1,4 10^{-9}	8,7 10^{-10}	5,4 10^{-10}	4,3 10^{-10}
Zr-88	83,4 d	F	0,020	6,9 10^{-9}	0,002	8,3 10^{-9}	5,6 10^{-9}	4,7 10^{-9}	3,6 10^{-9}	3,5 10^{-9}
		M	0,020	8,5 10^{-9}	0,002	7,8 10^{-9}	5,1 10^{-9}	3,6 10^{-9}	3,0 10^{-9}	2,6 10^{-9}
		S	0,020	1,3 10^{-8}	0,002	1,2 10^{-8}	7,7 10^{-9}	5,2 10^{-9}	4,3 10^{-9}	3,6 10^{-9}
Zr-89	3,27 d	F	0,020	2,6 10^{-9}	0,002	2,0 10^{-9}	9,9 10^{-10}	6,1 10^{-10}	3,6 10^{-10}	2,9 10^{-10}
		M	0,020	3,7 10^{-9}	0,002	2,8 10^{-9}	1,5 10^{-9}	9,6 10^{-10}	6,5 10^{-10}	5,2 10^{-10}
		S	0,020	3,9 10^{-9}	0,002	2,9 10^{-9}	1,5 10^{-9}	1,0 10^{-9}	6,8 10^{-10}	5,5 10^{-10}
Zr-93	1,53 10^{9} a	F	0,020	3,5 10^{-9}	0,002	4,8 10^{-9}	5,3 10^{-9}	9,7 10^{-9}	1,8 10^{-8}	2,5 10^{-8}
		M	0,020	3,3 10^{-9}	0,002	3,1 10^{-9}	2,8 10^{-9}	4,1 10^{-9}	7,5 10^{-9}	1,0 10^{-8}
		S	0,020	7,0 10^{-9}	0,002	6,4 10^{-9}	4,5 10^{-9}	3,3 10^{-9}	3,3 10^{-9}	3,3 10^{-9}
Zr-95	64.0 d	F	0,020	1,2 10^{-8}	0,002	1,1 10^{-8}	6,4 10^{-9}	4,2 10^{-9}	2,8 10^{-9}	2,5 10^{-9}

		M	0,020	2,0 10^{-8}	0,002	1,6 10^{-8}	9,7 10^{-9}	6,8 10^{-9}	5,9 10^{-9}	4,8 10^{-9}
		S	0,020	2,4 10^{-8}	0,002	1,9 10^{-8}	1,2 10^{-8}	8,3 10^{-9}	7,3 10^{-9}	5,9 10^{-9}
Zr-97	16,9 h	F	0,020	5,0 10^{-9}	0,002	3,4 10^{-9}	1,5 10^{-9}	9,1 10^{-10}	4,8 10^{-10}	3,9 10^{-10}
		M	0,020	7,8 10^{-9}	0,002	5,3 10^{-9}	2,8 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	9,2 10^{-10}
		S	0,020	8,2 10^{-9}	0,002	5,6 10^{-9}	2,9 10^{-9}	1,9 10^{-9}	1,2 10^{-9}	8,9 10^{-10}
Niobium										
Nb-88	0,238 h	F	0,020	1,8 10^{-10}	0,010	1,3 10^{-10}	6,3 10^{-11}	3,9 10^{-11}	2,4 10^{-11}	1,9 10^{-11}
		M	0,020	2,5 10^{-10}	0,010	1,8 10^{-10}	8,5 10^{-11}	5,3 10^{-11}	3,3 10^{-11}	2,7 10^{-11}
		S	0,020	2,6 10^{-10}	0,010	1,8 10^{-10}	8,7 10^{-11}	5,5 10^{-11}	3,5 10^{-11}	2,8 10^{-11}
Nb-89	2,03 h	F	0,020	7,0 10^{-10}	0,010	4,8 10^{-10}	2,2 10^{-10}	1,3 10^{-10}	7,4 10^{-11}	3,8 10^{-11}
		M	0,020	1,1 10^{-9}	0,010	7,6 10^{-10}	3,6 10^{-10}	2,2 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
		S	0,020	1,2 10^{-9}	0,010	7,9 10^{-10}	3,7 10^{-10}	2,3 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
Nb-89	1,10 h	F	0,020	4,0 10^{-10}	0,010	2,9 10^{-10}	1,4 10^{-10}	8,3 10^{-11}	4,8 10^{-11}	3,9 10^{-11}
		M	0,020	6,2 10^{-10}	0,010	4,3 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	8,2 10^{-11}	6,8 10^{-11}
		S	0,020	6,4 10^{-10}	0,010	4,4 10^{-10}	2,1 10^{-10}	1,4 10^{-10}	8,6 10^{-11}	7,1 10^{-11}
Nb-90	14,6 h	F	0,020	3,5 10^{-9}	0,010	2,7 10^{-9}	1,3 10^{-9}	8,2 10^{-10}	4,7 10^{-10}	3,8 10^{-10}
		M	0,020	5,1 10^{-9}	0,010	3,9 10^{-9}	1,9 10^{-9}	1,3 10^{-9}	7,8 10^{-10}	6,3 10^{-10}
		S	0,020	5,3 10^{-9}	0,010	4,0 10^{-9}	2,0 10^{-9}	1,3 10^{-9}	8,1 10^{-10}	6,6 10^{-10}
Nb-93m	13,6 a	F	0,020	1,8 10^{-9}	0,010	1,4 10^{-9}	7,0 10^{-10}	4,4 10^{-10}	2,7 10^{-10}	2,2 10^{-10}
		M	0,020	3,1 10^{-9}	0,010	2,4 10^{-9}	1,3 10^{-9}	8,2 10^{-10}	5,9 10^{-10}	5,1 10^{-10}
		S	0,020	7,4 10^{-9}	0,010	6,5 10^{-9}	4,0 10^{-9}	2,5 10^{-9}	1,9 10^{-9}	1,8 10^{-9}
Nb-94	2,03 10^{4} a	F	0,020	3,1 10^{-8}	0,010	2,7 10^{-8}	1,5 10^{-8}	1,0 10^{-8}	6,7 10^{-9}	5,8 10^{-9}
		M	0,020	4,3 10^{-8}	0,010	3,7 10^{-8}	2,3 10^{-8}	1,6 10^{-8}	1,3 10^{-8}	1,1 10^{-8}

		S	0,020	1,2 10^{-7}	0,010	1,2 10^{-7}	8,3 10^{-8}	5,9 10^{-8}	5,2 10^{-8}	4,9 10^{-8}
Nb-95	35,1 d	F	0,020	4,1 10^{-9}	0,010	3,1 10^{-9}	1,6 10^{-9}	1,2 10^{-9}	7,5 10^{-10}	5,7 10^{-10}
		M	0,020	6,8 10^{-9}	0,010	5,2 10^{-9}	3,1 10^{-9}	2,2 10^{-9}	1,9 10^{-9}	1,5 10^{-9}
		S	0,020	7,7 10^{-9}	0,010	5,9 10^{-9}	3,6 10^{-9}	2,5 10^{-9}	2,2 10^{-9}	1,8 10^{-9}
Nb-95m	3,61 d	F	0,020	2,3 10^{-9}	0,010	1,6 10^{-9}	7,0 10^{-10}	4,2 10^{-10}	2,4 10^{-10}	2,0 10^{-10}
		M	0,020	4,3 10^{-9}	0,010	3,1 10^{-9}	1,7 10^{-9}	1,2 10^{-9}	1,0 10^{-9}	7,9 10^{-10}
		S	0,020	4,6 10^{-9}	0,010	3,4 10^{-9}	1,9 10^{-9}	1,3 10^{-9}	1,1 10^{-9}	7,9 10^{-10}
Nb-96	23,3 h	F	0,020	3,1 10^{-9}	0,010	2,4 10^{-9}	1,2 10^{-9}	7,3 10^{-10}	4,2 10^{-10}	3,4 10^{-10}
		M	0,020	4,7 10^{-9}	0,010	3,6 10^{-9}	1,8 10^{-9}	1,2 10^{-9}	7,8 10^{-10}	6,9 10^{-10}
		S	0,020	4,9 10^{-9}	0,010	3,7 10^{-9}	1,9 10^{-9}	1,2 10^{-9}	8,3 10^{-10}	6,6 10^{-10}
Nb-97	1,20 h	F	0,020	2,2 10^{-10}	0,010	1,5 10^{-10}	6,8 10^{-11}	4,2 10^{-11}	2,5 10^{-11}	2,1 10^{-11}
		M	0,020	3,7 10^{-10}	0,010	2,5 10^{-10}	1,2 10^{-10}	7,7 10^{-11}	5,2 10^{-11}	4,3 10^{-11}
		S	0,020	3,8 10^{-10}	0,010	2,6 10^{-10}	1,2 10^{-10}	8,1 10^{-11}	5,5 10^{-11}	4,5 10^{-11}
Nb-98	0,858 h	F	0,020	3,4 10^{-10}	0,010	2,4 10^{-10}	1,1 10^{-10}	6,9 10^{-11}	4,1 10^{-11}	3,3 10^{-11}
		M	0,020	5,2 10^{-10}	0,010	3,6 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	6,8 10^{-11}	5,6 10^{-11}
		S	0,020	5,3 10^{-10}	0,010	3,7 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	7,1 10^{-11}	5,8 10^{-11}
Molybdenum										
Mo-90	5,67 h	F	1,000	1,2 10^{-9}	0,800	1,1 10^{-9}	5,3 10^{-10}	3,2 10^{-10}	1,9 10^{-10}	1,5 10^{-10}
		M	0,200	2,6 10^{-9}	0,100	2,0 10^{-9}	9,9 10^{-10}	6,5 10^{-10}	4,2 10^{-10}	3,4 10^{-10}
		S	0,020	2,8 10^{-9}	0,010	2,1 10^{-9}	1,1 10^{-9}	6,9 10^{-10}	4,5 10^{-10}	3,6 10^{-10}
Mo-93	3,50 10^{3} a	F	1,000	3,1 10^{-9}	0,800	2,6 10^{-9}	1,7 10^{-9}	1,3 10^{-9}	1,1 10^{-9}	1,0 10^{-9}
		M	0,200	2,2 10^{-9}	0,100	1,8 10^{-9}	1,1 10^{-9}	7,9 10^{-10}	6,6 10^{-10}	5,9 10^{-10}
		S	0,02	6,0 10^{-9}	0,01	5,8 10^{-9}	4,0	2,8	2,4 10^{-9}	2,3 10^{-}

			0		0		10^{-9}	10^{-9}		9
Mo-93m	6,85 h	F	1,000	7,3 10^{-10}	0,800	6,4 10^{-10}	3,3 10^{-10}	2,0 10^{-10}	1,2 10^{-10}	9,6 10^{-11}
		M	0,200	1,2 10^{-9}	0,100	9,7 10^{-10}	5,0 10^{-10}	3,2 10^{-10}	2,0 10^{-10}	1,6 10^{-10}
		S	0,020	1,3 10^{-9}	0,010	1,0 10^{-9}	5,2 10^{-10}	3,4 10^{-10}	2,1 10^{-10}	1,7 10^{-10}
Mo-99	2,75 d	F	1,000	2.3 10^{-9}	0,800	1,7 10^{-9}	7,7 10^{-10}	4,7 10^{-10}	2,6 10^{-10}	2,2 10^{-10}
		M	0,200	6,0 10^{-9}	0,100	4,4 10^{-9}	2,2 10^{-9}	1,5 10^{-9}	1,1 10^{-9}	8,9 10^{-10}
		S	0,020	6,9 10^{-9}	0,010	4,8 10^{-9}	2,4 10^{-9}	1,7 10^{-9}	1,2 10^{-9}	9,9 10^{-10}
Mo-101	0,244 h	F	1,000	1,4 10^{-10}	0,800	9,7 10^{-11}	4,4 10^{-11}	2,8 10^{-11}	1,7 10^{-11}	1,4 10^{-11}
		M	0,200	2,2 10^{-10}	0,100	1,5 10^{-10}	7,0 10^{-11}	4,5 10^{-11}	3,0 10^{-11}	2.5 10^{-11}
		S	0,020	2.3 10^{-10}	0,010	1,6 10^{-10}	7,2 10^{-11}	4,7 10^{-11}	3,1 10^{-11}	2,6 10^{-11}

Technetium

Tc-93	2,75 h	F	1,000	2,4 10^{-10}	0,800	2,1 10^{-10}	1,1 10^{-10}	6,7 10^{-11}	4,0 10^{-11}	3,2 10^{-11}
		M	0,200	2,7 10^{-10}	0,100	2,3 10^{-10}	1,2 10^{-10}	7,5 10^{-11}	4,4 10^{-11}	3,5 10^{-11}
		S	0,020	2,8 10^{-10}	0,010	2,3 10^{-10}	1,2 10^{-10}	7,6 10^{-11}	4,5 10^{-11}	3,5 10^{-11}
Te-93m	0,725 h	F	1,000	1,2 10^{-10}	0,800	9,8 10^{-11}	4,9 10^{-11}	2,9 10^{-11}	1,8 10^{-11}	1,4 10^{-11}
		M	0,200	1,4 10^{-10}	0,100	1,1 10^{-10}	5,4 10^{-11}	3,4 10^{-11}	2,1 10^{-11}	1,7 10^{-11}
		S	0,020	1,4 10^{-10}	0,010	1,1 10^{-10}	5,4 10^{-11}	3,4 10^{-11}	2,2 10^{-11}	1,7 10^{-11}
Te-94	4,88 h	F	1,000	8.9 10^{-10}	0.800	7,5 10^{-10}	3,9 10^{-10}	2,3 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
		M	0,200	9,8 10^{-10}	0,100	8,1 10^{-10}	4,2 10^{-10}	2,6 10^{-10}	1,6 10^{-10}	1,2 10^{-10}
		S	0,020	9,9 10^{-10}	0,010	8,2 10^{-10}	4,3 10^{-10}	2.7 10^{-10}	1,6 10^{-10}	1,3 10^{-10}
Tc-94m	0,867 h	F	1,000	4,8 10^{-10}	0,800	3,4 10^{-10}	1,6 10^{-10}	8,6 10^{-11}	5,2 10^{-11}	4,1 10^{-11}
		M	0,200	9,8 10^{-10}	0,100	8,1 10^{-10}	4,2 10^{-10}	2,6 10^{-10}	1,6 10^{-10}	1,2 10^{-10}
		S	0,020	4,3 10^{-10}	0,010	3,0 10^{-10}	1,4 10^{-10}	8,8 10^{-11}	5,6 10^{-11}	4,6 10^{-11}

Te-95	20,0 h	F	1,000	$7,5\ 10^{-10}$	0,800	$6,3\ 10^{-10}$	$3,3\ 10^{-10}$	$2,0\ 10^{-10}$	$1,2\ 10^{-10}$	$9,6\ 10^{-11}$
		M	0,200	$8,3\ 10^{-10}$	0,100	$6,9\ 10^{-10}$	$3,6\ 10^{-10}$	$2,2\ 10^{-10}$	$1,3\ 10^{-10}$	$1,0\ 10^{-10}$
		S	0,020	$8,5\ 10^{-10}$	0,010	$7,0\ 10^{-10}$	$3,6\ 10^{-10}$	$2,3\ 10^{-10}$	$1,4\ 10^{-10}$	$1,1\ 10^{-10}$
Tc-95m	61,0 d	F	1,000	$2,4\ 10^{-9}$	0,800	$1,8\ 10^{-9}$	$9,3\ 10^{-10}$	$5,7\ 10^{-10}$	$3,6\ 10^{-10}$	$2,9\ 10^{-10}$
		M	0,200	$4,9\ 10^{-9}$	0,100	$4,0\ 10^{-9}$	$2,3\ 10^{-9}$	$1,5\ 10^{-9}$	$1,1\ 10^{-9}$	$8,8\ 10^{-10}$
		S	0,020	$6,0\ 10^{-9}$	0,010	$5,0\ 10^{-9}$	$2,7\ 10^{-9}$	$1,8\ 10^{-9}$	$1,5\ 10^{-9}$	$1,2\ 10^{-9}$
Tc-96	4,28 d	F	1,000	$4,2\ 10^{-9}$	0,800	$3,4\ 10^{-9}$	$1,8\ 10^{-9}$	$1,1\ 10^{-9}$	$7,0\ 10^{-10}$	$5,7\ 10^{-10}$
		M	0,200	$4,7\ 10^{-9}$	0,100	$3,9\ 10^{-9}$	$2,1\ 10^{-9}$	$1,3\ 10^{-9}$	$8,6\ 10^{-10}$	$6,8\ 10^{-10}$
		S	0,020	$4,8\ 10^{-9}$	0,010	$3,9\ 10^{-9}$	$2,1\ 10^{-9}$	$1,4\ 10^{-9}$	$8,9\ 10^{-10}$	$7,0\ 10^{-10}$
Tc-96m	0,858 h	F	1,000	$5,3\ 10^{-11}$	0,800	$4,1\ 10^{-11}$	$2,1\ 10^{-11}$	$1,3\ 10^{-11}$	$7,7\ 10^{-12}$	$6,2\ 10^{-12}$
		M	0,200	$5,6\ 10^{-11}$	0,100	$4,4\ 10^{-11}$	$2,3\ 10^{-11}$	$1,4\ 10^{-11}$	$9,3\ 10^{-12}$	$7,4\ 10^{-12}$
		S	0,020	$5,7\ 10^{-11}$	0,010	$4,4\ 10^{-11}$	$2,3\ 10^{-11}$	$1,5\ 10^{-11}$	$9,5\ 10^{-12}$	$7,5\ 10^{-12}$
Tc-97	2,60 10[illegible] a	F	1,000	$5,2\ 10^{-10}$	0,800	$3,7\ 10^{-10}$	$1,7\ 10^{-10}$	$9,4\ 10^{-11}$	$5,6\ 10^{-11}$	$4,3\ 10^{-11}$
		M	0,200	$1,2\ 10^{-9}$	0,100	$1,0\ 10^{-9}$	$5,7\ 10^{-10}$	$3,6\ 10^{-10}$	$2,8\ 10^{-10}$	$2,2\ 10^{-10}$
		S	0,020	$5,0\ 10^{-9}$	0,010	$4,8\ 10^{-9}$	$3,3\ 10^{-9}$	$2,2\ 10^{-9}$	$1,9\ 10^{-9}$	$1,8\ 10^{-9}$
Tc-97m	87,0 d	F	1,000	$3,4\ 10^{-9}$	0,800	$2,3\ 10^{-9}$	$9,8\ 10^{-10}$	$5,6\ 10^{-10}$	$3,0\ 10^{-10}$	$2,7\ 10^{-10}$
		M	0,200	$1,3\ 10^{-8}$	0,100	$1,0\ 10^{-8}$	$6,1\ 10^{-9}$	$4,4\ 10^{-9}$	$4,1\ 10^{-9}$	$3,2\ 10^{-9}$
		S	0,020	$1,6\ 10^{-8}$	0,010	$1,3\ 10^{-8}$	$7,8\ 10^{-9}$	$5,7\ 10^{-9}$	$5,2\ 10^{-9}$	$4,1\ 10^{-9}$
Tc-98	4,20 10[illegible] a	F	1,000	$1,0\ 10^{-8}$	0,800	$6,8\ 10^{-9}$	$3,2\ 10^{-9}$	$1,9\ 10^{-9}$	$1,2\ 10^{-9}$	$9,7\ 10^{-10}$
		M	0,200	$3,5\ 10^{-8}$	0,100	$2,9\ 10^{-8}$	$1,7\ 10^{-8}$	$1,2\ 10^{-8}$	$1,0\ 10^{-8}$	$8,3\ 10^{-9}$
		S	0,020	1,1 10[illegible]	0,010	1,1 10[illegible]	$7,6\ 10^{-8}$	$5,4\ 10^{-8}$	$4,8\ 10^{-8}$	$4,5\ 10^{-8}$

Tc-99	2,13 10^{5} a	F	1,000	4,0 10^{-9}	0,800	2,5 10^{-9}	1,0 10^{-9}	5,9 10^{-10}	3,6 10^{-10}	2,9 10^{-10}
		M	0,200	1,7 10^{-8}	0,100	1,3 10^{-8}	8,0 10^{-9}	5,7 10^{-9}	5,0 10^{-9}	4,0 10^{-9}
		S	0,020	4,1 10^{-8}	0,010	3,7 10^{-8}	2,4 10^{-8}	1,7 10^{-8}	1,5 10^{-8}	1,3 10^{-8}
Te-99m	6,02 h	F	1,000	1,2 10^{-10}	0,800	8,7 10^{-11}	4,1 10^{-11}	2,4 10^{-11}	1,5 10^{-11}	1,2 10^{-11}
		M	0,200	1,3 10^{-10}	0,100	9,9 10^{-11}	5,1 10^{-11}	3,4 10^{-11}	2,4 10^{-11}	1,9 10^{-11}
		S	0,020	1,3 10^{-10}	0,010	1,0 10^{-10}	5,2 10^{-11}	3,5 10^{-11}	2,5 10^{-11}	2,0 10^{-11}
Te-101	0,237 h	F	1,000	8,5 10^{-11}	0,800	5,6 10^{-11}	2,5 10^{-11}	1,6 10^{-11}	9,7 10^{-12}	8,2 10^{-12}
		M	0,200	1,1 10^{-10}	0,100	7,1 10^{-11}	3,2 10^{-11}	2,1 10^{-11}	1,4 10^{-11}	1,2 10^{-11}
		S	0,020	1,1 10^{-10}	0,010	7,3 10^{-11}	3,3 10^{-11}	2,2 10^{-11}	1,4 10^{-11}	1,2 10^{-11}
Te-104	0,303 h	F	1,000	2,7 10^{-10}	0,800	1,8 10^{-10}	8,0 10^{-11}	4,6 10^{-11}	2,8 10^{-11}	2,3 10^{-11}
		M	0,200	2,9 10^{-10}	0,100	1,9 10^{-10}	8,6 10^{-11}	5,4 10^{-11}	3,3 10^{-11}	2,8 10^{-11}
		S	0,020	2,9 10^{-10}	0,010	1,9 10^{-10}	8,7 10^{-11}	5,4 10^{-11}	3,4 10^{-11}	2,9 10^{-11}
Ruthenium										
Ru-94	0,863 h	F	0,100	2,5 10^{-10}	0,050	1,9 10^{-10}	9,0 10^{-11}	5,4 10^{-11}	3,1 10^{-11}	2,5 10^{-11}
		M	0,100	3,8 10^{-10}	0,050	2,8 10^{-10}	1,3 10^{-10}	8,4 10^{-11}	5,2 10^{-11}	4,2 10^{-11}
		S	0,020	4,0 10^{-10}	0,010	2,9 10^{-10}	1,4 10^{-10}	8,7 10^{-11}	5,4 10^{-11}	4,4 10^{-11}
Ru-97	2,90 d	F	0,100	5,5 10^{-10}	0,050	4,4 10^{-10}	2,2 10^{-10}	1,3 10^{-10}	7,7 10^{-11}	6,2 10^{-11}
		M	0,100	7,7 10^{-10}	0,050	6,1 10^{-10}	3,1 10^{-10}	2,0 10^{-10}	1,3 10^{-10}	1,0 10^{-10}
		S	0,020	8,1 10^{-10}	0,010	6,3 10^{-10}	3,3 10^{-10}	2,1 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
Ru-103	39,3 d	F	0,100	4,2 10^{-9}	0,050	3,0 10^{-9}	1,5 10^{-9}	9,3 10^{-10}	5,6 10^{-10}	4,8 10^{-10}
		M	0,100	1,1 10^{-8}	0,050	8,4 10^{-9}	5,0 10^{-9}	3,5 10^{-9}	3,0 10^{-9}	2,4 10^{-9}
		S	0,020	1,3 10^{-8}	0,010	1,0 10^{-8}	6,0 10^{-9}	4,2 10^{-9}	3,7 10^{-9}	3,0 10^{-9}
Ru-105	4,44 h	F	0,100	7,1 10^{-10}	0,050	5,1 10^{-10}	2,3 10^{-10}	1,4 10^{-10}	7,9 10^{-10}	6,5 10^{-11}

		M	0,100	1,3 10^{-9}	0,050	9,2 10^{-10}	4,5 10^{-10}	3,0 10^{-10}	2,0 10^{-10}	1,7 10^{-10}
		S	0,020	1,4 10^{-9}	0,010	9,8 10^{-10}	4,8 10^{-10}	3,2 10^{-10}	2,2 10^{-10}	1,8 10^{-10}
Ru-106	1,01 a	F	0,100	7,2 10^{-8}	0,050	5,4 10^{-8}	2,6 10^{-8}	1,6 10^{-8}	9,2 10^{-9}	7,9 10^{-9}
		M	0,100	1,4 10^{-7}	0,050	1,1 10^{-7}	6,4 10^{-8}	4,1 10^{-8}	3,1 10^{-8}	2,8 10^{-8}
		S	0,020	2,6 10^{-7}	0,010	2,3 10^{-7}	1,4 10^{-7}	9,1 10^{-8}	7,1 10^{-8}	6,6 10^{-8}
Rhodium										
Rh-99	16,0 d	F	0,100	2,6 10^{-9}	0,050	2,0 10^{-9}	9,9 10^{-10}	6,2 10^{-10}	3,8 10^{-10}	3,2 10^{-10}
		M	0,100	4,5 10^{-9}	0,050	3,5 10^{-9}	2,0 10^{-9}	1,3 10^{-9}	9,6 10^{-10}	7,7 10^{-10}
		S	0,100	4,9 10^{-9}	0,050	3,8 10^{-9}	2,2 10^{-9}	1,3 10^{-9}	1,1 10^{-9}	8,7 10^{-10}
Rh-99m	4,70 h	F	0,100	2,4 10^{-10}	0,050	2,0 10^{-10}	1,0 10^{-10}	6,1 10^{-11}	3,5 10^{-11}	2,8 10^{-11}
		M	0,100	3,1 10^{-10}	0,050	2,5 10^{-10}	1,3 10^{-10}	8,0 10^{-11}	4,9 10^{-11}	3,9 10^{-11}
		S	0,100	3,2 10^{-10}	0,050	2,6 10^{-10}	1,3 10^{-10}	8,2 10^{-11}	5,1 10^{-11}	4,0 10^{-11}
Rh-100	20,8 h	F	0,100	2,1 10^{-9}	0,050	1,8 10^{-9}	9,1 10^{-10}	5,6 10^{-10}	3,3 10^{-10}	2,6 10^{-10}
		M	0,100	2,7 10^{-9}	0,050	2,2 10^{-9}	1,1 10^{-9}	7,1 10^{-10}	4,3 10^{-10}	3,4 10^{-10}
		S	0,100	2,8 10^{-9}	0,050	2,2 10^{-9}	1,2 10^{-9}	7,3 10^{-10}	4,4 10^{-10}	3,5 10^{-10}
Rh-101	3,20 a	F	0,100	7,4 10^{-9}	0,050	6,1 10^{-9}	3,5 10^{-9}	2,3 10^{-9}	1,5 10^{-9}	1,4 10^{-9}
		M	0,100	9,8 10^{-9}	0,050	8,0 10^{-9}	4,9 10^{-9}	3,4 10^{-9}	2,8 10^{-9}	2,3 10^{-9}
		S	0,100	1,9 10^{-8}	0,050	1,7 10^{-8}	1,1 10^{-8}	7,4 10^{-9}	6,2 10^{-9}	5,4 10^{-9}
Rh-101m	4,34 d	F	0,100	8,4 10^{-10}	0,050	6,6 10^{-10}	3,3 10^{-10}	2,0 10^{-10}	1,2 10^{-10}	9,7 10^{-11}
		M	0,100	1,3 10^{-9}	0,050	9,8 10^{-10}	5,2 10^{-10}	3,5 10^{-10}	2,5 10^{-10}	1,9 10^{-10}
		S	0,100	1,3 10^{-9}	0,050	1,0 10^{-9}	5,5 10^{-10}	3,7 10^{-10}	2,7 10^{-10}	2,1 10^{-10}
Rh-102	2,90 a	F	0,100	3,3 10^{-8}	0,050	2,8 10^{-8}	1,7 10^{-8}	1,1 10^{-8}	7,9 10^{-9}	7,3 10^{-9}
		M	0,100	3,0 10^{-8}	0,050	2,5 10^{-8}	1,5 10^{-8}	1,0 10^{-8}	7,9 10^{-9}	6,9 10^{-9}

		S	0,100	5,4 10^{-8}	0,050	5,0 10^{-8}	3,5 10^{-8}	2,4 10^{-8}	2,0 10^{-8}	1,7 10^{-8}
Rh-102m	207 d	F	0,100	1,2 10^{-8}	0,050	8,7 10^{-9}	4,4 10^{-9}	2,7 10^{-9}	1,7 10^{-9}	1,5 10^{-9}
		M	0,100	2,0 10^{-8}	0,050	1,6 10^{-8}	9,0 10^{-9}	6,0 10^{-9}	4,7 10^{-9}	4,0 10^{-9}
		S	0,100	3,0 10^{-8}	0,050	2,5 10^{-8}	1,5 10^{-8}	1,0 10^{-8}	8,2 10^{-9}	7,1 10^{-9}
Rh-103m	0,935 h	F	0,100	8,6 10^{-12}	0,050	5,9 10^{-12}	2,7 10^{-12}	1,6 10^{-12}	1,0 10^{-12}	8,6 10^{-16}
		M	0,100	1,9 10^{-11}	0,050	1,2 10^{-11}	6,3 10^{-12}	4,0 10^{-12}	3,0 10^{-12}	2,5 10^{-12}
		S	0,100	2,0 10^{-11}	0,050	1,3 10^{-11}	6,7 10^{-12}	4,3 10^{-12}	3,2 10^{-12}	2,7 10^{-12}
Rh-105	1,47 d	F	0,100	1,0 10^{-9}	0,050	6,9 10^{-10}	3,0 10^{-10}	1,8 10^{-10}	9,6 10^{-11}	8,2 10^{-11}
		M	0,100	2,2 10^{-9}	0,050	1,6 10^{-9}	7,4 10^{-10}	5,2 10^{-10}	4,1 10^{-10}	3,2 10^{-10}
		S	0,100	2,4 10^{-9}	0,050	1,7 10^{-9}	8,0 10^{-10}	5,6 10^{-10}	4,5 10^{-10}	3,5 10^{-10}
Rh-106m	2,20 h	F	0,100	5,7 10^{-10}	0,050	4,5 10^{-10}	2,2 10^{-10}	1,4 10^{-10}	8,0 10^{-11}	6,5 10^{-11}
		M	0,100	8,2 10^{-10}	0,050	6,3 10^{-10}	3,2 10^{-10}	2,0 10^{-10}	1,3 10^{-10}	1,1 10^{-10}
		S	0,100	8,5 10^{-10}	0,050	6,5 10^{-10}	3,3 10^{-10}	2,1 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
Rh-107	0,362 h	F	0,100	8,9 10^{-11}	0,050	5,9 10^{-11}	2,6 10^{-11}	1,7 10^{-11}	1,0 10^{-11}	9,0 10^{-12}
		M	0,100	1,4 10^{-10}	0,050	9,3 10^{-11}	4,2 10^{-11}	2,8 10^{-11}	1,9 10^{-11}	1,6 10^{-11}
		S	0,100	1,5 10^{-10}	0,050	9,7 10^{-11}	4,4 10^{-11}	2,9 10^{-11}	1,9 10^{-11}	1,7 10^{-11}
Palladium										
Pd-100	3,63 d	F	0,050	3,9 10^{-9}	0,005	3,0 10^{-9}	1,5 10^{-9}	9,7 10^{-10}	5,8 10^{-10}	4,7 10^{-10}
		M	0,050	5,2 10^{-9}	0,005	4,0 10^{-9}	2,2 10^{-9}	1,4 10^{-9}	9,9 10^{-10}	8,0 10^{-10}
		S	0,050	5,3 10^{-9}	0,005	4,1 10^{-9}	2,2 10^{-9}	1,5 10^{-9}	1,0 10^{-9}	8,5 10^{-10}
Pd-101	8,27 h	F	0,050	3,6 10^{-10}	0,005	2,9 10^{-10}	1,4 10^{-10}	8,6 10^{-11}	4,9 10^{-10}	3,9 10^{-11}
		M	0,050	4,8 10^{-10}	0,005	3,8 10^{-10}	1,9 10^{-10}	1,2 10^{-10}	7,5 10^{-11}	5,9 10^{-11}
		S	0,050	5,0 10^{-10}	0,005	3,9 10^{-10}	2,0 10^{-10}	1,2 10^{-10}	7,8 10^{-11}	6,2 10^{-11}

Pd-103	17,0 d	F	0,050	9,7 10^{-10}	0,005	6,5 10^{-10}	3,0 10^{-10}	1,9 10^{-10}	1,1 10^{-11}	8,9 10^{-11}
		M	0,050	2,3 10^{-9}	0,005	1,6 10^{-9}	9,0 10^{-10}	5,9 10^{-10}	4,5 10^{-10}	3,8 10^{-10}
		S	0,050	2,5 10^{-9}	0,005	1,8 10^{-9}	1,0 10^{-10}	6,8 10^{-9}	5,3 10^{-10}	4,5 10^{-10}
Pd-107	6,50 10[illegible] a	F	0,050	2,6 10^{-10}	0,005	1,8 10^{-10}	8,2 10^{-11}	5,2 10^{-11}	3,1 10^{-11}	2,5 10^{-11}
		M	0,050	6,5 10^{-10}	0,005	5,0 10^{-10}	2,6 10^{-10}	1,5 10^{-10}	1,0 10^{-10}	8,5 10^{-11}
		S	0,050	2,2 10^{-9}	0,005	2,0 10^{-9}	1,3 10^{-9}	7,8 10^{-10}	6,2 10^{-10}	5,9 10^{-10}
Pd-109	13,4 h	F	0,050	1,5 10^{-9}	0,005	9,9 10^{-10}	4,2 10^{-10}	2,6 10^{-10}	1,4 10^{-10}	1,2 10^{-10}
		M	0,050	2,6 10^{-9}	0,005	1,8 10^{-9}	8,8 10^{-10}	5,9 10^{-10}	4,3 10^{-10}	3,4 10^{-10}
		S	0,050	2,7 10^{-9}	0,005	1,9 10^{-9}	9,3 10^{-10}	6,3 10^{-10}	4,6 10^{-10}	3,7 10^{-10}

Silver

Ag-102	0,215 h	F	0,100	1,2 10^{-10}	0,050	8,6 10^{-11}	4,2 10^{-11}	2,6 10^{-11}	1,5 10^{-11}	1,3 10^{-11}
		M	0,100	1,6 10^{-10}	0,050	1,1 10^{-10}	5,5 10^{-11}	3,4 10^{-11}	2,1 10^{-11}	1,7 10^{-11}
		S	0,020	1,6 10^{-10}	0,010	1,2 10^{-10}	5,6 10^{-11}	3,5 10^{-11}	2,2 10^{-11}	1,8 10^{-11}
Ag-103	1,09 h	F	0,100	1,4 10^{-10}	0,050	1,0 10^{-10}	4,9 10^{-11}	3,0 10^{-11}	1,8 10^{-11}	1,4 10^{-11}
		M	0,100	2,2 10^{-10}	0,050	1,6 10^{10}	7,6 10^{-11}	4,8 10^{-10}	3,2 10^{-11}	2,6 10^{-11}
		S	0,020	2,3 10^{-10}	0,010	1,6 10^{-10}	7,9 10^{-11}	5,1 10^{-11}	3,3 10^{-11}	2,7 10^{-11}
Ag-104	1,15 h	F	0,100	2,3 10^{-10}	0,050	1,9 10^{-10}	9,8 10^{-11}	5,9 10^{-11}	3,5 10^{-11}	2,8 10^{-11}
		M	0,100	2,9 10^{-10}	0,050	2,3 10^{-10}	1,2 10^{-10}	7,4 10^{-11}	4,5 10^{-11}	3,6 10^{-11}
		S	0,020	2,9 10^{-10}	0,010	2,4 10^{-10}	1,2 10^{-10}	7,6 10^{-11}	4,6 10^{-11}	3,7 10^{-11}
Ag-104m	0,558 h	F	0,100	1,6 10^{-10}	0,050	1,1 10^{-10}	5,5 10^{-11}	3,4 10^{-11}	2,0 10^{-11}	1,6 10^{-11}
		M	0,100	2,3 10^{-10}	0,050	1,6 10^{-10}	7,7 10^{-11}	4,8 10^{-11}	3,0 10^{-11}	2,5 10^{-11}
		S	0,020	2,4 10^{-10}	0,010	1,7 10^{-10}	8,0 10^{-11}	5,0 10^{-11}	3,1 10^{-11}	2,6 10^{-11}

Ag-105	41,0 d	F	0,100	$3,9\ 10^{-9}$	0,050	$3,4\ 10^{-9}$	$1,7\ 10^{-9}$	$1,0\ 10^{-9}$	$6,4\ 10^{-10}$	$54\ 10^{-10}$
		M	0,100	$4,5\ 10^{-9}$	0,050	$3,5\ 10^{-9}$	$2,0\ 10^{-9}$	$1,3\ 10^{-9}$	$9,0\ 10^{-10}$	$7,3\ 10^{-10}$
		S	0,020	$4,5\ 10^{-9}$	0,010	$3,6\ 10^{-9}$	$2,1\ 10^{-9}$	$1,3\ 10^{-9}$	$1,0\ 10^{-9}$	$8,1\ 10^{-10}$
Ag-106	0,399 h	F	0,100	$9,4\ 10^{-11}$	0,050	$6,4\ 10^{-11}$	$2,9\ 10^{-11}$	$1,8\ 10^{-11}$	$1,1\ 10^{-11}$	$9,1\ 10^{-12}$
		M	0,100	$1,4\ 10^{-10}$	0,050	$9,5\ 10^{-11}$	$4,4\ 10^{-11}$	$2,8\ 10^{-11}$	$1,8\ 10^{-11}$	$1,5\ 10^{-11}$
		S	0,020	$1,5\ 10^{-10}$	0,010	$9,9\ 10^{-11}$	$4,5\ 10^{-11}$	$2,9\ 10^{-11}$	$1,9\ 10^{-11}$	$1,6\ 10^{-11}$
Ag-106m	8,41 d	F	0,100	$7,7\ 10^{-9}$	0,050	$6,1\ 10^{-9}$	$3,2\ 10^{-9}$	$2,1\ 10^{-9}$	$1,3\ 10^{-9}$	$1,1\ 10^{-9}$
		M	0,100	$7,2\ 10^{-9}$	0,050	$5,8\ 10^{-9}$	$3,2\ 10^{-9}$	$2,1\ 10^{-9}$	$1,4\ 10^{-9}$	$1,1\ 10^{-9}$
		S	0,020	$7,0\ 10^{-9}$	0,010	$5,7\ 10^{-9}$	$3,2\ 10^{-9}$	$2,1\ 10^{-9}$	$1,4\ 10^{-9}$	$1,1\ 10^{-9}$
Ag-108m	$1,27\ 10^{2}$ a	F	0,100	$3,5\ 10^{-8}$	0,050	$2,8\ 10^{-8}$	$1,6\ 10^{-8}$	$1,0\ 10^{-8}$	$6,9\ 10^{-9}$	$6,1\ 10^{-9}$
		M	0,100	$3,3\ 10^{-8}$	0,050	$2,7\ 10^{-8}$	$1,7\ 10^{-8}$	$1,0\ 10^{-8}$	$8,6\ 10^{-9}$	$7,4\ 10^{-9}$
		S	0,020	$8,9\ 10^{-8}$	0,010	$8,7\ 10^{-8}$	$6,2\ 10^{-8}$	$4,4\ 10^{-8}$	$3,9\ 10^{-8}$	$3,7\ 10^{-8}$
Ag-110m	250 d	F	0,100	$3,5\ 10^{-8}$	0,050	$2,8\ 10^{-8}$	$1,5\ 10^{-8}$	$9,7\ 10^{-9}$	$6,3\ 10^{-9}$	$5,5\ 10^{-9}$
		M	0,100	$3,5\ 10^{-8}$	0,050	$2,8\ 10^{-8}$	$1,7\ 10^{-8}$	$1,2\ 10^{-8}$	$9,2\ 10^{-9}$	$7,6\ 10^{-9}$
		S	0,020	$4,6\ 10^{-8}$	0,010	$4,1\ 10^{-8}$	$2,6\ 10^{-8}$	$1,8\ 10^{-8}$	$1,5\ 10^{-8}$	$1,2\ 10^{8}$
Ag-111	7,45 d	F	0,100	$4,8\ 10^{-9}$	0,050	$3,2\ 10^{-9}$	$1,4\ 10^{-9}$	$8,8\ 10^{-10}$	$4,8\ 10^{-10}$	$4,0\ 10^{-10}$
		M	0,100	$9,2\ 10^{-9}$	0,050	$6,6\ 10^{-9}$	$3,5\ 10^{-9}$	$2,4\ 10^{-9}$	$1,9\ 10^{-9}$	$1,5\ 10^{-9}$
		S	0,020	$9,9\ 10^{-9}$	0,010	$7,1\ 10^{-9}$	$3,8\ 10^{-9}$	$2,7\ 10^{-9}$	$2,1\ 10^{-9}$	$1,7\ 10^{-9}$
Ag-112	3,12 h	F	0,100	$9,8\ 10^{-10}$	0,050	$6,4\ 10^{-10}$	$2,8\ 10^{-10}$	$1,7\ 10^{-10}$	$9,1\ 10^{-11}$	$7,6\ 10^{-11}$
		M	0,100	$1,7\ 10^{-9}$	0,050	$1,1\ 10^{-9}$	$5,1\ 10^{-10}$	$3,2\ 10^{-10}$	$2,0\ 10^{-10}$	$1,6\ 10^{-10}$
		S	0,020	$1,8\ 10^{-9}$	0,010	$1,2\ 10^{-9}$	$5,4\ 10^{-10}$	$3,4\ 10^{-10}$	$2,1\ 10^{-10}$	$1,7\ 10^{-10}$
Ag-115	0,333 h	F	0,100	$1,6\ 10^{-10}$	0,050	$1,0\ 10^{-10}$	$4,6\ 10^{-11}$	$2,9\ 10^{-11}$	$1,7\ 10^{-11}$	$1,5\ 10^{-11}$
		M	0,10	$2,5\ 10^{-10}$	0,05	$1,7\ 10^{-10}$	7,6	4,9	$3,2\ 10^{-11}$	$2,7\ 10^{-}$

			0		0		10^{-11}	10^{-11}		11
		S	0,020	2,7 10^{-10}	0,010	1,7 10^{-11}	8,0 10^{-11}	5,2 10^{-11}	3,4 10^{-11}	2,9 10^{-11}
Cadmium										
Cd-104	0,961 h	F	0,100	2,0 10^{-10}	0,050	1,7 10^{-10}	8,7 10^{-11}	5,2 10^{-11}	3,1 10^{-11}	2,4 10^{-11}
		M	0,100	2,6 10^{-10}	0,050	2,1 10^{-10}	1,1 10^{-10}	6,9 10^{-11}	4,2 10^{-11}	3,4 10^{-11}
		S	0,100	2,7 10^{-10}	0,050	2,2 10^{-10}	1,1 10^{-10}	7,0 10^{-11}	4,4 10^{-11}	3,5 10^{-11}
Cd-107	6,49 h	F	0,100	2,3 10^{-10}	0,050	1,7 10^{-10}	7,4 10^{-11}	4,6 10^{-11}	2,5 10^{-11}	2,1 10^{-10}
		M	0,100	5,2 10^{-10}	0,050	3,7 10^{-10}	2,0 10^{-10}	1,3 10^{-10}	8,8 10^{-11}	8,3 10^{-11}
		S	0,100	5,5 10^{-10}	0,050	3,9 10^{-10}	2,1 10^{-10}	1,4 10^{-10}	9,7 10^{-11}	7,7 10^{-11}
Cd-109	1,27 a	F	0,100	4,5 10^{-8}	0,050	3,7 10^{-8}	2,1 10^{-8}	1,4 10^{-8}	9,3 10^{-9}	8,1 10^{-9}
		M	0,100	3,0 10^{-8}	0,050	2,3 10^{-8}	1,4 10^{-8}	9,5 10^{-9}	7,8 10^{-9}	6,6 10^{-9}
		S	0,100	2,7 10^{-8}	0,050	2,1 10^{-8}	1,3 10^{-8}	8,9 10^{-9}	7,6 10^{-9}	6,2 10^{-9}
Cd-113	9,30 10^{15} a	F	0,100	2,6 10^{-7}	0,050	2,4 10^{-7}	1,7 10^{-7}	1,4 10^{-7}	1,2 10^{-7}	1,2 10^{-7}
		M	0,100	1,2 10^{-7}	0,050	1,0 10^{-7}	7,6 10^{-8}	6,1 10^{-8}	5,7 10^{-8}	5,5 10^{-8}
		S	0,100	7,8 10^{-8}	0,050	5,8 10^{-8}	4,1 10^{-8}	3,0 10^{-8}	2,7 10^{-8}	2,6 10^{-8}
Cd-113m	13,6 a	F	0,100	3,0 10^{-7}	0,050	2,7 10^{-7}	1,8 10^{-7}	1,3 10^{-7}	1,3 10^{-7}	1,1 10^{-7}
		M	0,100	1,4 10^{-7}	0,050	1,2 10^{-7}	8,1 10^{-8}	6,0 10^{-8}	5,3 10^{-8}	5,2 10^{-8}
		S	0,100	1,1 10^{-7}	0,050	8,4 10^{-8}	5,5 10^{-8}	3,9 10^{-8}	3,3 10^{-8}	3,1 10^{-8}
Cd-115	2,23 d	F	0,100	4,0 10^{-9}	0,050	2,6 10^{-9}	1,2 10^{-9}	7,5 10^{-10}	4,3 10^{-10}	3,5 10^{-10}
		M	0,100	6,7 10^{-9}	0,050	4,8 10^{-9}	2,4 10^{-9}	1,7 10^{-9}	1,2 10^{-9}	9,8 10^{-10}
		S	0,100	7,2 10^{-9}	0,050	5,1 10^{-9}	2,6 10^{-9}	1,8 10^{-9}	1,3 10^{-9}	1,1 10^{-9}
Cd-115m	44,6 d	F	0,100	4,6 10^{-8}	0,050	3,2 10^{-8}	1,5 10^{-8}	1,0 10^{-8}	6,4 10^{-9}	5,3 10^{-9}
		M	0,100	4,0 10^{-8}	0,050	2,5 10^{-8}	1,4 10^{-8}	9,4 10^{-9}	7,3 10^{-9}	6,2 10^{-9}

		S	0,100	$3,9\ 10^{-8}$	0,050	$3,0\ 10^{-8}$	$1,7\ 10^{-8}$	$1,1\ 10^{-8}$	$8,9\ 10^{-9}$	$7,7\ 10^{-9}$
Cd-117	2,49 h	F	0,100	$7,4\ 10^{-10}$	0,050	$5,2\ 10^{-10}$	$2,4\ 10^{-10}$	$1,5\ 10^{-10}$	$8,1\ 10^{-11}$	$6,7\ 10^{-11}$
		M	0,100	$1,3\ 10^{-9}$	0,050	$9,3\ 10^{-10}$	$4,5\ 10^{-10}$	$2,9\ 10^{-10}$	$2,0\ 10^{-10}$	$1,6\ 10^{-10}$
		S	0,100	$1,4\ 10^{-9}$	0,050	$9,8\ 10^{-10}$	$4,8\ 10^{-10}$	$3,1\ 10^{-10}$	$2,1\ 10^{-10}$	$1,7\ 10^{-10}$
Cd-117m	3,36 h	F	0,100	$8,9\ 10^{-10}$	0,050	$6,7\ 10^{-10}$	$3,3\ 10^{-10}$	$2,0\ 10^{-10}$	$1,1\ 10^{-10}$	$9,4\ 10^{-11}$
		M	0,100	$1,5\ 10^{-9}$	0,050	$1,1\ 10^{-9}$	$5,5\ 10^{-10}$	$3,6\ 10^{-10}$	$2,4\ 10^{-10}$	$2,0\ 10^{-10}$
		S	0,100	$1,5\ 10^{-9}$	0,050	$1,1\ 10^{-9}$	$5,7\ 10^{-10}$	$3,8\ 10^{-10}$	$2,6\ 10^{-10}$	$2,1\ 10^{-10}$

Indium

In-109	4,20 h	F	0,040	$2,6\ 10^{-10}$	0,020	$2,1\ 10^{-10}$	$1,0\ 10^{-10}$	$6,3\ 10^{-11}$	$3,6\ 10^{-11}$	$2,9\ 10^{-11}$
		M	0,040	$3,3\ 10^{-10}$	0,020	$2,6\ 10^{-10}$	$1,3\ 10^{-10}$	$8,4\ 10^{-11}$	$5,3\ 10^{-11}$	$4,2\ 10^{-11}$
In-110	4,90 h	F	0,040	$8,2\ 10^{-10}$	0,020	$7,1\ 10^{-10}$	$3,7\ 10^{-10}$	$2,3\ 10^{-10}$	$1,3\ 10^{-10}$	$1,1\ 10^{-10}$
		M	0,040	$9,9\ 10^{-10}$	0,020	$8,3\ 10^{-10}$	$4,4\ 10^{-10}$	$2,7\ 10^{-10}$	$1,6\ 10^{-10}$	$1,3\ 10^{-10}$
In-110	1,15 h	F	0,040	$3,0\ 10^{-10}$	0,020	$2,1\ 10^{-10}$	$9,9\ 10^{-11}$	$6,0\ 10^{-11}$	$3,5\ 10^{-11}$	$2,8\ 10^{-11}$
		M	0,040	$4,5\ 10^{-10}$	0,020	$3,1\ 10^{-10}$	$1,5\ 10^{-10}$	$9,2\ 10^{-11}$	$5,8\ 10^{-11}$	$4,7\ 10^{-11}$
In-111	2,83 d	F	0,040	$1,2\ 10^{-9}$	0,020	$8,6\ 10^{-10}$	$4,2\ 10^{-10}$	$2,6\ 10^{-10}$	$1,5\ 10^{-10}$	$1,3\ 10^{-10}$
		M	0,040	$1,5\ 10^{-9}$	0,020	$1,2\ 10^{-9}$	$6,2\ 10^{-10}$	$4,1\ 10^{-10}$	$2,9\ 10^{-10}$	$2,3\ 10^{-10}$
In-112	0,240 h	F	0,040	$4,4\ 10^{-11}$	0,020	$3,0\ 10^{-11}$	$1,3\ 10^{-11}$	$8,7\ 10^{-12}$	$5,4\ 10^{-12}$	$4,7\ 10^{-12}$
		M	0,040	$6,5\ 10^{-11}$	0,020	$4,4\ 10^{-11}$	$2,0\ 10^{-11}$	$1,3\ 10^{-11}$	$8,7\ 10^{-12}$	$7,4\ 10^{-12}$
In-113m	1,66 h	F	0,040	$1,0\ 10^{-10}$	0,020	$7,0\ 10^{-11}$	$3,2\ 10^{-11}$	$2,0\ 10^{-11}$	$1,2\ 10^{-11}$	$9,7\ 10^{-12}$
		M	0,040	$1,6\ 10^{-10}$	0,020	$1,1\ 10^{-10}$	$5,5\ 10^{-11}$	$3,6\ 10^{-11}$	$2,4\ 10^{-11}$	$2,0\ 10^{-11}$
In-114m	49,5 d	F	0,040	$1,2\ 10^{-7}$	0,020	$7,7\ 10^{-8}$	$3,4\ 10^{-8}$	$1,9\ 10^{-8}$	$1,1\ 10^{-8}$	$9,3\ 10^{-9}$
		M	0,040	$4,8\ 10^{-8}$	0,020	$3,3\ 10^{-8}$	$1,6\ 10^{-8}$	$1,0\ 10^{-8}$	$7,8\ 10^{-8}$	$6,1\ 10^{-9}$
In-115	$5,10\ 10^{15}$a	F	0,040	$8,3\ 10^{-7}$	0,020	$7,8\ 10^{-7}$	$5,5\ 10^{-7}$	$5,0\ 10^{-7}$	$4,2\ 10^{-7}$	$3,9\ 10^{-7}$

		M	0,040	3,0 10^{-7}	0,020	2,8 10^{-7}	2,1 10^{-7}	1,9 10^{-7}	1,7 10^{-7}	1,6 10^{-7}
In-115m	4,49 h	F	0,040	2,8 10^{-10}	0,020	1,9 10^{-10}	8,4 10^{-11}	5,1 10^{-11}	2,8 10^{-11}	2,4 10^{-11}
		M	0,040	4,7 10^{-10}	0,020	3,3 10^{-10}	1,6 10^{-10}	1,0 10^{-10}	7,2 10^{-11}	5,9 10^{-11}
In-116m	0,902 h	F	0,040	2,5 10^{-10}	0,020	1,9 10^{-10}	9,2 10^{-11}	5,7 10^{-11}	3,4 10^{-11}	2,8 10^{-11}
		M	0,040	3,6 10^{-10}	0,020	2,7 10^{-10}	1,3 10^{-10}	8,5 10^{-11}	5,6 10^{-11}	4,5 10^{-11}
In-117	0,730 h	F	0,040	1,4 10^{-10}	0,020	9,7 10^{-11}	4,5 10^{-11}	2,8 10^{-11}	1,7 10^{-11}	1,5 10^{-11}
		M	0,040	2,3 10^{-10}	0,020	1,6 10^{-10}	7,5 10^{-11}	5,0 10^{-11}	3,5 10^{-11}	2,9 10^{-11}
In-117m	1,94 h	F	0,040	3,4 10^{-10}	0,020	2,3 10^{-10}	1,0 10^{-10}	6,2 10^{-11}	3,5 10^{-11}	2,9 10^{-11}
		M	0,040	6,0 10^{-10}	0,020	4,0 10^{-10}	1,9 10^{-10}	1,3 10^{-10}	8,7 10^{-11}	7,2 10^{-11}
In-119m	0,300 h	F	0,040	1,2 10^{-10}	0,020	7,3 10^{-11}	3,1 10^{-11}	2,0 10^{-11}	1,2 10^{-11}	1,0 10^{-11}
		M	0,040	1,8 10^{-10}	0,020	1,1 10^{-10}	4,9 10^{-11}	3,2 10^{-11}	2,0 10^{-11}	1,7 10^{-11}
Tin										
Sn-110	4,00 h	F	0,040	1,0 10^{-9}	0,020	7,6 10^{-10}	3,6 10^{-10}	2,2 10^{-10}	1,2 10^{-10}	9,9 10^{-11}
		M	0,040	1,5 10^{-9}	0,020	1,1 10^{-9}	5,1 10^{-10}	3,2 10^{-10}	1,9 10^{-10}	1,6 10^{-10}
Sn-111	0,588 h	F	0,040	7,7 10^{-11}	0,020	5,4 10^{-11}	2,6 10^{-11}	1,6 10^{-11}	9,4 10^{-12}	7,8 10^{-12}
		M	0,040	1,1 10^{-10}	0,020	8,0 10^{-11}	3,8 10^{-11}	2,5 10^{-11}	1,6 10^{-11}	1,3 10^{-11}
Sn-113	115 d	F	0,040	5,1 10^{-9}	0,020	3,7 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	6,4 10^{-10}	5,4 10^{-10}
		M	0,040	1,3 10^{-8}	0,020	1,0 10^{-8}	5,8 10^{-9}	4,0 10^{-9}	3,2 10^{-9}	2,7 10^{-9}
Sn-117m	13,6 d	F	0,040	3,3 10^{-9}	0,020	2,2 10^{-9}	1,0 10^{-9}	6,1 10^{-10}	3,4 10^{-10}	2,8 10^{-10}
		M	0,040	1,0 10^{-8}	0,020	7,7 10^{-9}	4,6 10^{-9}	3,4 10^{-9}	3,1 10^{-9}	2,4 10^{-9}
Sn-119m	293 d	F	0,040	3,0 10^{-9}	0,020	2,2 10^{-9}	1,0 10^{-9}	6,0 10^{-10}	3,4 10^{-10}	2,8 10^{-10}
		M	0,040	1,0 10^{-8}	0,020	7,9 10^{-9}	4,7 10^{-9}	3,1 10^{-9}	2,6 10^{-9}	2,2 10^{-9}
Sn-121	1,13 d	F	0,040	7,7 10^{-10}	0,020	5,0 10^{-10}	2,2 10^{-10}	1,3 10^{-10}	7,0 10^{-11}	6,0 10^{-11}

		M	0,040	1,5 10^{-9}	0,020	1,1 10^{-9}	5,1 10^{-10}	3,6 10^{-10}	2,9 10^{-11}	2,3 10^{-10}
Sn-121m	[illegible]55,0 a	F	0,040	6,9 10^{-9}	0,020	5,4 10^{-9}	2,8 10^{-9}	1,6 10^{-9}	9,4 10^{-10}	8,0 10^{-10}
		M	0,040	1,9 10^{-8}	0,020	1,5 10^{-8}	9,2 10^{-9}	6,4 10^{-10}	5,5 10^{-9}	4,5 10^{-9}
Sn-123	129 d	F	0,040	1,4 10^{-8}	0,020	9,9 10^{-9}	4,5 10^{-9}	2,6 10^{-9}	1,4 10^{-9}	1,2 10^{-9}
		M	0,040	4,0 10^{-8}	0,020	3,1 10^{-8}	1,8 10^{-8}	1,2 10^{-8}	9,5 10^{-9}	8,1 10^{-9}
Sn-123m	0,668 h	F	0,040	1,4 10^{-10}	0,020	8,9 10^{-11}	3,9 10^{-11}	2,5 10^{-11}	1,5 10^{-11}	1,3 10^{-11}
		M	0,040	2,3 10^{-10}	0,020	1,5 10^{-10}	7,0 10^{-11}	4,6 10^{-11}	3,2 10^{-11}	2,7 10^{-11}
Sn-125	9,64 d	F	0,040	1,2 10^{-8}	0,020	8,0 10^{-9}	3,5 10^{-9}	2,0 10^{-9}	1,1 10^{-9}	8,9 10^{-10}
		M	0,040	2,1 10^{-8}	0,020	1,5 10^{-8}	7,6 10^{-9}	5,0 10^{-9}	3,6 10^{-9}	8,1 10^{-9}
Sn-126	1,00 10^{3} a	F	0,040	7,3 10^{-8}	0,020	5,9 10^{-8}	3,2 10^{-8}	2,0 10^{-8}	1,3 10^{-8}	1,1 10^{-8}
		M	0,040	1,2 10^{-7}	0,020	1,0 10^{-7}	6,2 10^{-8}	4,1 10^{-8}	3,3 10^{-8}	2,8 10^{-8}
Sn-127	2,10 h	F	0,040	6,6 10^{-10}	0,020	4,7 10^{-10}	2,3 10^{-10}	1,4 10^{-10}	7,9 10^{-11}	6,5 10^{-11}
		M	0,040	1,0 10^{-9}	0,020	7,4 10^{-10}	3,7 10^{-10}	2,4 10^{-10}	1,6 10^{-10}	1,3 10^{-10}
Sn-128	0,985 h	F	0,040	5,1 10^{-10}	0,020	3,6 10^{-10}	1,7 10^{-10}	1,0 10^{-10}	6,1 10^{-11}	5,0 10^{-11}
		M	0,040	8,0 10^{-10}	0,020	5,5 10^{-10}	2,7 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	9,2 10^{-11}

Antimony

Sb-115	0,530 h	F	0,200	8,1 10^{-11}	0,100	5,9 10^{-11}	2,8 10^{-11}	1,7 10^{-11}	1,0 10^{-11}	8,5 10^{-12}
		M	0,020	1,2 10^{-10}	0,010	8,3 10^{-11}	4,0 10^{-11}	2,5 10^{-11}	1,6 10^{-11}	1,3 10^{-11}
		S	0,020	1,2 10^{-10}	0,010	8,6 10^{-11}	4,1 10^{-11}	2,6 10^{-11}	1,7 10^{-11}	1,4 10^{-11}
Sb-116	0,263 h	F	0,200	8,4 10^{-11}	0,100	6,2 10^{-11}	3,0 10^{-11}	1,9 10^{-11}	1,1 10^{-11}	9,1 10^{-12}
		M	0,020	1,1 10^{-10}	0,010	8,2 10^{-11}	4,0 10^{-11}	2,5 10^{-11}	1,5 10^{-11}	1,3 10^{-11}
		S	0,020	1,2 10^{-10}	0,010	8,5 10^{-11}	4,1 10^{-11}	2,6 10^{-11}	1,6 10^{-11}	1,3 10^{-11}
Sb-116m	1,00 h	F	0,200	2,6 10^{-10}	0,100	2,1 10^{-10}	1,1 10^{-10}	6,6 10^{-11}	4,0 10^{-11}	3,2 10^{-11}

		M	0,020	3,6 10^{-10}	0,010	2,8 10^{-10}	1,5 10^{-10}	9,1 10^{-11}	5,9 10^{-11}	4,7 10^{-11}
		S	0,020	3,7 10^{-10}	0,010	2,9 10^{-10}	1,5 10^{-10}	9,4 10^{-11}	6,1 10^{-11}	4,9 10^{-11}
Sb-117	2,80 h	F	0,200	7,7 10^{-11}	0,100	6,0 10^{-11}	2,9 10^{-11}	1,8 10^{-11}	1,0 10^{-11}	8,5 10^{-12}
		M	0,020	1,2 10^{-10}	0,010	9,1 10^{-11}	4,6 10^{-11}	3,0 10^{-11}	2,0 10^{-11}	1,6 10^{-11}
		S	0,020	1,3 10^{-10}	0,010	9,5 10^{-11}	4,8 10^{-11}	3,1 10^{-11}	2,2 10^{-11}	1,7 10^{-11}
Sb-118m	5,00 h	F	0,200	7,3 10^{-10}	0,100	6,2 10^{-10}	3,3 10^{-10}	2,0 10^{-10}	1,2 10^{-10}	9,3 10^{-11}
		M	0,020	9,3 10^{-10}	0,010	7,6 10^{-10}	4,0 10^{-10}	2,5 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
		S	0,020	9,5 10^{-10}	0,010	7,8 10^{-10}	4,1 10^{-10}	2,5 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
Sb-119	1,59 d	F	0,200	2,7 10^{-10}	0,100	2,0 10^{-10}	9,4 10^{-11}	5,5 10^{-11}	2,9 10^{-11}	2,3 10^{-11}
		M	0,020	4,0 10^{-10}	0,010	2,8 10^{-10}	1,3 10^{-10}	7,9 10^{-11}	4,4 10^{-11}	3,5 10^{-11}
		S	0,020	4,1 10^{-10}	0,010	2,9 10^{-10}	1,4 10^{-10}	8,2 10^{-11}	4,5 10^{-11}	3,6 10^{-11}
Sb-120	5,76 d	F	0,200	4,1 10^{-9}	0,100	3,3 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	6,7 10^{-10}	5,5 10^{-10}
		M	0,020	6,3 10^{-9}	0,010	5,0 10^{-9}	2,8 10^{-9}	1,8 10^{-9}	1,3 10^{-} [illegible]	1,0 10^{-9}
		S	0,020	6,6 10^{-9}	0,010	5,3 10^{-9}	2,9 10^{-9}	1,9 10^{-9}	1,4 10^{-} [illegible]	1,1 10^{-9}
Sb-120	0,265 h	F	0,200	4,6 10^{-11}	0,100	3,1 10^{-11}	1,4 10^{-11}	8,9 10^{-12}	5,4 10^{-12}	4,6 10^{-12}
		M	0,020	6,6 10^{-11}	0,010	4,4 10^{-11}	2,0 10^{-11}	1,3 10^{-11}	8,3 10^{-12}	7,0 10^{-12}
		S	0,020	6,8 10^{-11}	0,010	4,6 10^{-11}	2,1 10^{-11}	1,4 10^{-11}	8,7 10^{-12}	7,3 10^{-12}
Sb-122	2,70 d	F	0,200	4,2 10^{-9}	0,100	2,8 10^{-9}	1,4 10^{-9}	8,4 10^{-10}	4,4 10^{-10}	3,6 10^{-10}
		M	0,020	8,3 10^{-9}	0,010	5,7 10^{-9}	2,8 10^{-9}	1,8 10^{-9}	1,3 10^{-8}	1,0 10^{-9}
		S	0,020	8,8 10^{-9}	0,010	6,1 10^{-9}	3,0 19^{-9}	2,0 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Sb-124	60,2 d	F	0,200	1,2 10^{-8}	0,100	8,8 10^{-9}	4,8 10^{-9}	2,6 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
		M	0,020	3,1 10^{-8}	0,010	2,4 10^{-8}	1,4 10^{-8}	9,6 10^{-9}	7,7 10^{-9}	6,4 10^{-9}
		S	0,02	3,9 10^{-8}	0,01	3,1 10^{-8}	1,8	1,3	1,0 10^{-8}	8,6 10^{-}

			0		0		10^{-8}	10^{-8}		9
Sb-124m	0,337 h	F	0,200	2,7 10^{-11}	0,100	1,9 10^{-11}	9,0 10^{-12}	5,6 10^{-12}	3,4 10^{-12}	2,8 10^{-12}
		M	0,020	4,3 10^{-11}	0,010	3,1 10^{-11}	1,5 10^{-11}	9,6 10^{-12}	6,5 10^{-12}	5,4 10^{-12}
		S	0,020	4,6 10^{-11}	0,010	3,3 10^{-11}	1,6 10^{-11}	1,0 10^{-11}	7,2 10^{-12}	5,9 10^{-12}
Sb-125	2,77 a	F	0,200	8,7 10^{-9}	0,100	6,8 10^{-9}	3,7 10^{-9}	2,3 10^{-9}	1,5 10^{-9}	1,4 10^{-9}
		M	0,020	2,0 18^{-8}	0,010	1,6 10^{-8}	1,0 10^{-8}	6,8 10^{-9}	5,8 10^{-9}	4,8 10^{-9}
		S	0,020	4,2 10^{-8}	0,010	3,8 10^{-8}	2,4 10^{-8}	1,6 10^{-8}	1,4 10^{-8}	1,2 10^{-8}
Sb-126	12,4 d	F	0,200	8,8 10^{-9}	0,100	6,6 10^{-9}	3,3 10^{-9}	2,1 10^{-9}	1,2 10^{-9}	1,0 10^{-9}
		M	0,020	1,7 10^{-8}	0,010	1,3 10^{-8}	7,4 10^{-9}	5,1 10^{-9}	3,5 10^{-9}	2,8 10^{-9}
		S	0,020	1,9 10^{-8}	0,010	1,5 10^{-8}	8,2 10^{-9}	5,0 10^{-9}	4,0 10^{-9}	3,2 10^{-9}
Sb-126m	0,317 h	F	0,200	1,2 10^{-10}	0,100	8,2 10^{-11}	3,8 10^{-11}	2,4 10^{-11}	1,5 10^{-11}	1,2 10^{-11}
		M	0,020	1,7 10^{-10}	0,010	1,2 10^{-10}	5,5 10^{-11}	3,5 10^{-11}	2,3 10^{-11}	1,9 10^{-11}
		S	0,020	1,8 10^{-10}	0,010	1,2 10^{-10}	5,7 10^{-11}	3,7 10^{-11}	2,4 10^{-11}	2,0 10^{-11}
Sb-127	3,85 d	F	0,200	5,1 10^{-9}	0,100	3,5 10^{-9}	1,6 10^{-9}	9,7 10^{-10}	5,2 10^{-10}	4,3 10^{-10}
		M	0,020	1,0 10^{-8}	0,010	7,3 10^{-9}	3,9 10^{-9}	2,7 10^{-9}	2,1 10^{-9}	1,7 10^{-9}
		S	0,020	1,1 10^{-8}	0,010	7,9 10^{-9}	4,2 10^{-9}	3,0 10^{-9}	2,3 10^{-9}	1,9 10^{-9}
Sb-128	9,01 h	F	0,200	2,1 10^{-9}	0,100	1,7 10^{-9}	8,3 10^{-10}	5,1 10^{-10}	2,9 10^{-10}	2,3 10^{-10}
		M	0,020	3,3 10^{-9}	0,010	2,5 10^{-9}	1,2 10^{-9}	7,9 10^{-10}	5,0 10^{-10}	4,0 10^{-10}
		S	0,020	3,4 10^{-9}	0,010	2,6 10^{-9}	1,3 10^{-9}	8,3 10^{-10}	5,2 10^{-10}	4,2 10^{-10}
Sb-128	0,173 h	F	0,200	9,8 10^{-11}	0,100	6,9 10^{-11}	3,2 10^{-11}	2,0 10^{-11}	1,2 10^{-11}	1,0 10^{-11}
		M	0,020	1,3 10^{-10}	0,010	9,2 10^{-11}	4,3 10^{-11}	2,7 10^{-11}	1,7 10^{-11}	1,4 10^{-11}
		S	0,020	1,4 10^{-10}	0,010	9,4 10^{-11}	4,4 10^{-11}	2,8 10^{-11}	1,8 10^{-11}	1,5 10^{-11}
Sb-129	4,32 h	F	0,200	1,1 10^{-9}	0,100	8,2 10^{-10}	3,8 10^{-10}	2,3 10^{-10}	1,3 10^{-10}	1,0 10^{-10}

		M	0,020	2,0 10^{-9}	0,010	1,4 10^{-9}	6,8 10^{-10}	4,4 10^{-10}	2,9 10^{-10}	2,3 10^{-10}
		S	0,020	2,1 10^{-9}	0,010	1,5 10^{-9}	7,2 10^{-10}	4,6 10^{-10}	3,0 10^{-10}	2,5 10^{-10}
Sb-130	0,667 h	F	0,200	3,0 10^{-10}	0,100	2,2 10^{-10}	1,1 10^{-10}	6,6 10^{-11}	4,0 10^{-11}	3,3 10^{-11}
		M	0,020	4,5 10^{-10}	0,010	3,2 10^{-10}	1,6 10^{-10}	9,8 10^{-11}	6,3 10^{-11}	5,1 10^{-11}
		S	0,020	4,6 10^{-10}	0,010	3,3 10^{-10}	1,6 10^{-10}	1,0 10^{-10}	6,5 10^{-11}	5,3 10^{-11}
Sb-131	0,383 h	F	0,200	3,5 10^{-10}	0,100	2,8 10^{-10}	1,4 10^{-10}	7,7 10^{-11}	4,6 10^{-11}	3,5 10^{-11}
		M	0,020	3,9 10^{-10}	0,010	2,6 10^{-10}	1,3 10^{-10}	8,0 10^{-11}	5,3 10^{-11}	4,4 10^{-11}
		S	0,020	3,8 10^{-10}	0,010	2,6 10^{-10}	1,2 10^{-10}	7,9 10^{-11}	5,3 10^{-11}	4,4 10^{-11}
Tellurium										
Te-116	2,49 h	F	0,600	5,3 10^{-10}	0,300	4,2 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	7,2 10^{-11}	5,8 10^{-11}
		M	0,200	8,6 10^{-10}	0,100	6,4 10^{-10}	3,2 10^{-10}	2,0 10^{-10}	1,3 10^{-10}	1,0 10^{-10}
		S	0,020	9,1 10^{-10}	0,010	6,7 10^{-10}	3,3 10^{-10}	2,1 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
Te-121	17,0 d	F	0,600	1,7 10^{-9}	0,300	1,4 10^{-9}	7,2 10^{-10}	4,6 10^{-10}	2,9 10^{-10}	3,8 10^{-10}
		M	0,200	2,3 10^{-9}	0,100	1,9 10^{-9}	1,0 10^{-9}	6,8 10^{-10}	4,7 10^{-10}	3,8 10^{-10}
		S	0,020	2,4 10^{-9}	0,010	2,0 10^{-9}	1,1 10^{-9}	7,2 10^{-10}	5,1 10^{-10}	4,1 10^{-10}
Te-121m	154 d	F	0,600	1,4 10^{-8}	0,300	1,0 10^{-8}	5,3 10^{-9}	3,3 10^{-9}	2,1 10^{-9}	1,8 10^{-9}
		M	0,200	1,9 10^{-8}	0,100	1,5 10^{-8}	8,8 10^{-9}	6,1 10^{-9}	5,1 10^{-9}	4,2 10^{-9}
		S	0,020	2,3 10^{-8}	0,010	1,9 10^{-8}	1,2 10^{-8}	8,1 10^{-9}	6,9 10^{-9}	5,7 10^{-9}
Te-123	1,00 10^{13} a	F	0,600	1,1 10^{-8}	0,300	9,1 10^{-9}	6,2 10^{-9}	4,8 10^{-9}	4,0 10^{-9}	3,9 10^{-9}
		M	0,200	5,6 10^{-9}	0,100	4,4 10^{-9}	3,0 10^{-9}	2,3 10^{-9}	2,0 10^{-9}	1,9 10^{-9}
		S	0,020	5,3 10^{-9}	0,010	5,0 10^{-9}	3,5 10^{-9}	2,4 10^{-9}	2,1 10^{-9}	2,0 10^{-9}
Te-123m	120 d	F	0,600	9,8 10^{-9}	0,300	6,8 10^{-9}	3,4 10^{-9}	1,9 10^{-9}	1,1 10^{-9}	9,5 10^{-10}
		M	0,200	1,8 10^{-8}	0,100	1,3 10^{-8}	8,0 10^{-9}	5,7 10^{-9}	5,0 10^{-9}	4,0 10^{-9}

		S	0,020	2,0 10^{-8}	0,010	1,6 10^{-8}	9,8 10^{-9}	7,1 10^{-9}	6,3 10^{-9}	5,1 10^{-9}
Te-125m	58,0 d	F	0,600	6,2 10^{-9}	0,300	4,2 10^{-9}	2,0 10^{-9}	1,1 10^{-9}	6,1 10^{-10}	5,1 10^{-10}
		M	0,200	1,5 10^{-8}	0,100	1,1 10^{-8}	6,6 10^{-8}	4,8 10^{-9}	4,3 10^{-9}	3,4 10^{-9}
		S	0,020	1,7 10^{-8}	0,010	1,3 10^{-8}	7,8 10^{-9}	5,8 10^{-9}	5,3 10^{-9}	4,2 10^{-9}
Te-127	9,35 h	F	0,600	4,3 10^{-10}	0,300	3,2 10^{-10}	1,4 10^{-10}	8,5 10^{-11}	4,5 10^{-11}	3,9 10^{-11}
		M	0,200	1,0 10^{-9}	0,100	7,3 10^{-10}	3,6 10^{-10}	2,4 10^{-10}	1,6 10^{-10}	1,3 10^{-10}
		S	0,020	1,2 10^{-9}	0,010	7,9 10^{-10}	3,9 10^{-10}	2,6 10^{-10}	1,7 10^{-10}	1,4 10^{-10}
Te-127m	109 d	F	0,600	2,1 10^{-8}	0,300	1,4 10^{-8}	6,5 10^{-9}	3,5 10^{-9}	2,0 10^{-9}	1,5 10^{-9}
		M	0,200	3,5 10^{-8}	0,100	2,6 10^{-8}	1,5 10^{-8}	1,1 10^{-8}	9,2 10^{-9}	7,4 10^{-9}
		S	0,020	4,1 10^{-8}	0,010	3,3 10^{-8}	2,0 10^{-8}	1,4 10^{-8}	1,2 10^{-8}	9,8 10^{-9}
Te-129	1,16 h	F	0,600	1,8 10^{-10}	0,300	1,2 10^{-10}	5,1 10^{-11}	3,2 10^{-11}	1,9 10^{-11}	1,6 10^{-11}
		M	0,200	3,3 10^{-10}	0,100	2,2 10^{-10}	9,9 10^{-11}	6,5 10^{-11}	4,4 10^{-11}	3,7 10^{-11}
		S	0,020	3,5 10^{-10}	0,010	2,3 10^{-10}	1,0 10^{-10}	6,9 10^{-11}	4,7 10^{-11}	3,9 10^{-11}
Te-129m	33,6 d	F	0,600	2,0 10^{-8}	0,300	1,3 10^{-8}	5,8 10^{-9}	3,1 10^{-9}	1,7 10^{-9}	1,3 10^{-9}
		M	0,200	3,5 10^{-8}	0,100	2,6 10^{-8}	1,4 10^{-8}	9,8 10^{-9}	8,0 10^{-9}	6,6 10^{-9}
		S	0,020	3,8 10^{-8}	0,010	2,9 10^{-8}	1,7 10^{-8}	1,2 10^{-8}	9,6 10^{-9}	7,9 10^{-9}
Te-131	0,417 h	F	0,600	2,3 10^{-10}	0,300	2,0 10^{-10}	9,9 10^{-11}	5,3 10^{-11}	3,3 10^{-11}	2,3 10^{-11}
		M	0,200	2,6 10^{-10}	0,100	1,7 10^{-10}	8,1 10^{-11}	5,2 10^{-11}	3,5 10^{-11}	2,8 10^{-11}
		S	0,020	2,4 10^{-10}	0,010	1,6 10^{-10}	7,4 10^{-11}	4,9 10^{-11}	3,3 10^{-11}	2,8 10^{-11}
Te-131m	1,25 d	F	0,600	8,7 10^{-9}	0,300	7,6 10^{-9}	3,9 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	8,6 10^{-10}
		M	0,200	7,9 10^{-9}	0,100	5,8 10^{-9}	3,0 10^{-9}	1,9 10^{-9}	1,2 10^{-9}	9,4 10^{-10}
		S	0,020	7,0 10^{-9}	0,010	5,1 10^{-9}	2,6 10^{-9}	1,8 10^{-9}	1,1 10^{-9}	9,1 10^{-10}
Te-132	3,26 d	F	0,60	2,2 10^{-8}	0,30	1,8 10^{-8}	8,5	4,2	2,6 10^{-9}	1,8 10-

			0		0		10^{-9}	10^{-9}		9
		M	0,200	1,6 10^{-8}	0,100	1,3 10^{-8}	6,4 10^{-9}	4,0 10^{-9}	2,6 10^{-9}	2,0 10^{-9}
		S	0,020	1,5 10^{-8}	0,010	1,1 10^{-8}	5,8 10^{-9}	3,8 10^{-9}	2,5 10^{-9}	2,0 10^{-9}
Te-133	0,207 h	F	0,600	2,4 10^{-10}	0,300	2,1 10^{-10}	9,6 10^{-11}	4,6 10^{-11}	2,8 10^{-11}	1,9 10^{-11}
		M	0,200	2,0 10^{-10}	0,100	1,3 10^{-10}	6,1 10^{-11}	3,8 10^{-11}	2,4 10^{-11}	2,0 10^{-11}
		S	0,020	1,7 10^{-10}	0,010	1,2 10^{-10}	5,4 10^{-11}	3,5 10^{-11}	2,2 10^{-11}	1,9 10^{-11}
Te-133m	0,923 h	F	0,600	1,0 10^{-9}	0,300	8,9 10^{-10}	4,1 10^{-10}	2,0 10^{-10}	1,2 10^{-10}	8,1 10^{-11}
		M	0,200	8,5 10^{-10}	0,100	5,8 10^{-10}	2,8 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	8,7 10^{-11}
		S	0,020	7,4 10^{-10}	0,010	5,1 10^{-10}	2,5 10^{-10}	1,6 10^{-10}	1,0 10^{-10}	8,4 10^{-11}
Te-134	0,696 h	F	0,600	4,7 10^{-10}	0,300	3,7 10^{-10}	1,8 10^{-10}	1,0 10^{-10}	6,0 10^{-11}	4,7 10^{-11}
		M	0,200	5,5 10^{-10}	0,100	3,9 10^{-10}	1,9 10^{-10}	1,2 10^{-10}	8,1 10^{-11}	6,6 10^{-11}
		S	0,020	5,6 10^{-10}	0,010	4,0 10^{-10}	1,9 10^{-10}	1,3 10^{-10}	8,4 10^{-11}	6,8 10^{-11}
Iodine										
I-120	1,35 h	F	1,000	1,3 10^{-9}	1,000	1,0 10^{-9}	4,8 10^{-10}	2,3 10^{-10}	1,4 10^{-10}	1,0 10^{-10}
		M	0,200	1,1 10^{-9}	0,100	7,3 10^{-10}	3,4 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	1,0 10^{-10}
		S	0,020	1,0 10^{-9}	0,010	6,9 10^{-10}	3,2 10^{-10}	2,0 10^{-10}	1,2 10^{-10}	1,0 10^{-10}
I-120m	0,883 h	F	1,000	8,6 10^{-10}	1,000	6,9 10^{-10}	3,3 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	8,2 10^{-11}
		M	0,200	8,2 10^{-10}	0,100	5,9 10^{-10}	2,9 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	8,7 10^{-11}
		S	0,020	8,2 10^{-10}	0,010	5,8 10^{-10}	2,8 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	8,8 10^{-11}
I-121	2,12 h	F	1,000	2,3 10^{-10}	1,000	2,1 10^{-10}	1,1 10^{-10}	6,0 10^{-11}	3,8 10^{-11}	2,7 10^{-11}
		M	0,200	2,1 10^{-10}	0,100	1,5 10^{-10}	7,8 10^{-11}	4,9 10^{-11}	3,2 10^{-11}	2,5 10^{-11}
		S	0,020	1,9 10^{-10}	0,010	1,4 10^{-10}	7,0 10^{-11}	4,5 10^{-11}	3,0 10^{-11}	2,4 10^{-11}
I-123	13,2 h	F	1,000	8,7 10^{-10}	1,000	7,9 10^{-10}	3,8 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	7,4 10^{-11}

		M	0,200	5,3 10^{-10}	0,100	3,9 10^{-10}	2,0 10^{-10}	1,2 10^{-10}	8,2 10^{-11}	6,4 10^{-11}
		S	0,020	4,3 10^{-10}	0,010	3,2 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	7,6 10^{-11}	6,0 10^{-11}
I-124	4,18 d	F	1,000	4,7 10^{-8}	1,000	4,5 10^{-8}	2,2 10^{-8}	1,1 10^{-8}	6,7 10^{-9}	4,4 10^{-9}
		M	0,200	1,4 10^{-8}	0,100	9,3 10^{-9}	4,6 10^{-9}	2,5 10^{-9}	1,6 10^{-9}	1,2 10^{-9}
		S	0,020	6,2 10^{-9}	0,010	4,4 10^{-9}	2,2 10^{-9}	1,4 10^{-9}	9,4 10^{-10}	7,7 10^{-10}
I-125	60,1 d	F	1,000	2,0 10^{-8}	1,000	2,3 10^{-8}	1,5 10^{-8}	1,1 10^{-8}	7,2 10^{-9}	5,1 10^{-9}
		M	0,200	6,9 10^{-9}	0,100	5,6 10^{-9}	3,6 10^{-9}	2,6 10^{-9}	1,8 10^{-9}	1,4 10^{-9}
		S	0,020	2,4 10^{-9}	0,010	1,8 10^{-9}	1,0 10^{-9}	6,7 10^{-10}	4,8 10^{-10}	3,8 10^{-10}
I-126	13,0 d	F	1,000	8,1 10^{-8}	1,000	8,3 10^{-8}	4,5 10^{-8}	2,4 10^{-8}	1,5 10^{-8}	9,8 10^{-9}
		M	0,200	2,4 10^{-8}	0,100	1,7 10^{-8}	9,5 10^{-9}	5,5 10^{-9}	3,8 10^{-9}	2,7 10^{-9}
		S	0,020	8,3 10^{-9}	0,010	5,9 10^{-9}	3,3 10^{-9}	2,2 10^{-9}	1,8 10^{-9}	1,4 10^{-9}
I-128	0,416 h	F	1,000	1,5 10^{-10}	1,000	1,1 10^{-10}	4,7 10^{-11}	2,7 10^{-11}	1,6 10^{-11}	1,3 10^{-11}
		M	0,200	1,9 10^{-10}	0,100	1,2 10^{-10}	5,3 10^{-11}	3,4 10^{-11}	2,2 10^{-11}	1,9 10^{-11}
		S	0,020	1,9 10^{-10}	0,010	1,2 10^{-10}	5,4 10^{-11}	3,5 10^{-11}	2,3 10^{-11}	2,0 10^{-11}
I-129	1,57 10^{7} a	F	1,000	7,2 10^{-8}	1,000	8,6 10^{-8}	6,1 10^{-8}	6,7 10^{-8}	4,6 10^{-8}	3,6 10^{-8}
		M	0,200	3,6 10^{-8}	0,100	3,3 10^{-8}	2,4 10^{-8}	2,4 10^{-8}	1,9 10^{-8}	1,5 10^{-8}
		S	0,020	2,9 10^{-8}	0,010	2,6 10^{-8}	1,8 10^{-8}	1,3 10^{-8}	1,1 10^{-8}	9,8 10^{-9}
I-130	12,4 h	F	1,000	8,2 10^{-9}	1,000	7,4 10^{-9}	3,5 10^{-9}	1,6 10^{-9}	1,0 10^{-8}	6,7 10^{-10}
		M	0,200	4,3 10^{-9}	0,100	3,1 10^{-9}	1,5 10^{-9}	9,2 10^{-10}	5,8 10^{-10}	4,5 10^{-10}
		S	0,020	3,3 10^{-9}	0,010	2,4 10^{-9}	1,2 10^{-9}	7,9 10^{-10}	5,1 10^{-10}	4,1 10^{-10}
I-131	8,04 d	F	1,000	7,2 10^{-8}	1,000	7,2 10^{-8}	3,7 10^{-8}	1,9 10^{-8}	1,1 10^{-8}	7,4 10^{-9}
		M	0,200	2,2 10^{-8}	0,100	1,5 10^{-8}	8,2 10^{-9}	4,7 10^{-9}	3,4 10^{-9}	2,4 10^{-9}
		S	0,02	8,8 10^{-9}	0,01	6,2 10^{-9}	3,5	2,4	2,0 10^{-9}	1,6 10-

			0		0		10^{-9}	10^{-9}		9
I-132	2,30 h	F	1,000	1,1 10^{-9}	1,000	9,6 10^{-10}	4,5 10^{-10}	2,2 10^{-10}	1,3 10^{-10}	9,4 10^{-11}
		M	0,200	9,9 10^{-10}	0,100	7,3 10^{-10}	3,6 10^{-10}	2,2 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
		S	0,020	9,3 10^{-10}	0,010	6,8 10^{-10}	3,4 10^{-10}	2,1 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
I-132m	1,39 h	F	1,000	9,6 10^{-10}	1,000	8,4 10^{-10}	4,0 10^{-10}	1,9 10^{-10}	1,2 10^{-10}	7,9 10^{-11}
		M	0,200	7,2 10^{-10}	0,100	5,3 10^{-10}	2,6 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	8,7 10^{-11}
		S	0,020	6,6 10^{-10}	0,010	4,8 10^{-10}	2,4 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	8,5 10^{-11}
I-133	20,8 h	F	1,000	1,9 10^{-8}	1,000	1,8 10^{-8}	8,3 10^{-9}	3,8 10^{-9}	2,2 10^{-9}	1,5 10^{-9}
		M	0,200	6,6 10^{-9}	0,100	4,4 10^{-9}	2,1 10^{-9}	1,2 10^{-9}	7,4 10^{-10}	5,5 10^{-10}
		S	0,020	3,8 10^{-9}	0,010	2,9 10^{-9}	1,4 10^{-9}	9,0 10^{-10}	5,3 10^{-10}	4,3 10^{-10}
I-134	0,876 h	F	1,000	4,6 10^{-10}	1,000	3,7 10^{-10}	1,8 10^{-10}	9,7 10^{-11}	5,9 10^{-11}	4,5 10^{-11}
		M	0,200	4,8 10^{-10}	0,100	3,4 10^{-10}	1,7 10^{-10}	1,0 10^{-10}	6,7 10^{-11}	5,4 10^{-11}
		S	0,020	4,8 10^{-10}	0,010	3,4 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	6,8 10^{-11}	5,5 10^{-11}
I-135	6,61 h	F	1,000	4,1 10^{-9}	1,000	3,7 10^{-9}	1,7 10^{-9}	7,9 10^{-10}	4,8 10^{-10}	3,2 10^{-10}
		M	0,200	2,2 10^{-9}	0,100	1,6 10^{-9}	7,8 10^{-10}	4,7 10^{-10}	3,0 10^{-10}	2,4 10^{-10}
		S	0,020	1,8 10^{-9}	0,010	1,3 10^{-9}	6,5 10^{-10}	4,2 10^{-10}	2,7 10^{-10}	2,2 10^{-10}
Caesium										
Cs-125	0,750 h	F	1,000	1,2 10^{-10}	1,000	8,3 10^{-11}	3,9 10^{-11}	2,4 10^{-11}	1,4 10^{-11}	1,2 10^{-11}
		M	0,200	2,0 10^{-10}	0,100	1,4 10^{-10}	6,5 10^{-11}	4,2 10^{-11}	**2[illegible]** 10^{-11}	2,2 10^{-11}
		S	0,020	2,1 10^{-10}	0,010	1,4 10^{-10}	6,8 10^{-11}	4,4 10^{-11}	2,8 10^{-11}	2,3 10^{-11}
Cs-127	6,25 h	F	1,000	1,6 10^{-10}	1,000	1,3 10^{-10}	6,9 10^{-11}	4,2 10^{-11}	2,5 10^{-11}	2,0 10^{-11}
		M	0,200	2,8 10^{-10}	0,100	2,2 10^{-10}	1,1 10^{-10}	7,3 10^{-11}	4,6 10^{-11}	3,6 10^{-11}
		S	0,020	3,0 10^{-10}	0,010	2,3 10^{-10}	1,2 10^{-10}	7,6 10^{-11}	4,8 10^{-11}	3,8 10^{-11}

Cs-129	1,34 d	F	1,000	3,4 10^{-10}	1,000	2,8 10^{-10}	1,4 10^{-10}	8,7 10^{-11}	5,2 10^{-11}	4,2 10^{-11}
		M	0,200	5,7 10^{-10}	0,100	4,6 10^{-10}	2,4 10^{-10}	1,5 10^{-10}	9[illegible] 10^{-11}	7,3 10^{-11}
		S	0,020	6,3 10^{-10}	0,010	4,9 10^{-10}	2,5 10^{-10}	1,6 10^{-10}	9,[illegible] 10^{-11}	7,7 10^{1}
Cs-130	0,498 h	F	1,000	8,3 10^{-11}	1,000	5,6 10^{-11}	2,5 10^{-11}	1,6 10^{-11}	9,4 10^{-12}	7,8 10^{-12}
		M	0,200	1,3 10^{-10}	0,100	8,7 10^{-11}	4,0 10^{-11}	2,5 10^{-11}	1,6 10^{-11}	1,4 10^{-11}
		S	0,020	1,4 10^{-10}	0,010	9,0 10^{-11}	4,1 10^{-11}	2,6 10^{-11}	1[illegible] 10^{-11}	1,4 10^{-11}
Cs-131	9,69 d	F	1,000	2,4 10^{-10}	1,000	1,7 10^{-10}	8,4 10^{-11}	5,3 10^{-11}	3,2 10^{-11}	2,7 10^{-11}
		M	0,200	3,5 10^{-10}	0,100	2,6 10^{-10}	1,4 10^{-10}	8,5 10^{-11}	5,5 10^{-11}	4,4 10^{-11}
		S	0,020	3,8 10^{-10}	0,010	2,8 10^{-10}	1,4 10^{-10}	9,1 10^{-11}	5,9 10^{-11}	4,7 10^{-11}
Cs-132	6,48 d	F	1,000	1,5 10^{-9}	1,000	1,2 10^{-9}	6,4 10^{-10}	4,1 10^{-10}	2,7 10^{-10}	2,3 10^{-10}
		M	0,200	1,9 10^{-9}	0,100	1,5 10^{-9}	8,4 10^{-10}	5,4 10^{-10}	3,7 10^{-10}	2,9 10^{-10}
		S	0,020	2,0 10^{-9}	0,010	1,6 10^{-9}	8,7 10^{-10}	5,6 10^{-10}	3,8 10^{-10}	3,0 10^{-10}
Cs-134	2,06 a	F	1,000	1,1 10^{-8}	1,000	7,3 10^{-9}	5,2 10^{-9}	5,3 10^{-9}	6,3 10^{-9}	6,6 10^{-9}
		M	0,200	3,2 10^{-8}	0,100	2,6 10^{-8}	1,6 10^{-8}	1,2 10^{-8}	1,1 10^{-8}	9,1 10^{-9}
		S	0,020	7,0 10^{-8}	0,010	6,3 10^{-8}	4,1 10^{-8}	2,8 10^{-8}	2,3 10^{-8}	2,0 10^{-8}
Ca-134m	2,90h	F	1,000	1,3 10^{-10}	1,000	8,6 10^{-11}	3,8 10^{-11}	2,5 10^{-11}	1,6 10^{-11}	1,4 10^{-11}
		M	0,200	3,3 10^{-10}	0,100	2,3 10^{-10}	1,2 10^{-10}	8,3 10^{-11}	6,6 10^{-11}	5,4 10^{-11}
		S	0,020	3,6 10^{-10}	0,010	2,5 10^{-10}	1,3 10^{-10}	9,2 10^{-11}	7,4 10^{-11}	6,0 10^{-11}
Cs-135	2,30 10[illegible] a	F	1,000	1,7 10^{-9}	1,000	9,9 10^{-10}	6,2 10^{-10}	6,1 10^{-10}	6,8 10^{-10}	6,9 10^{-10}
		M	0,200	1,2 10^{-8}	0,100	9,3 10^{-9}	5,7 10^{-9}	4,1 10^{-9}	3,8 10^{-9}	3,1 10^{-9}
		S	0,020	2,7 10^{-8}	0,010	2,4 10^{-8}	1,6 10^{-8}	1,1 10^{-8}	9,5 10^{-9}	8,6 10^{-9}
Cs-135m	0,883 h	F	1,000	9,2 10^{-11}	1,000	7,8 10^{-11}	4,1 10^{-11}	2,4 10^{-11}	1,5 10^{-11}	1,2 10^{-11}

		M	0,200	1,2 10^{-10}	0,100	9,9 10^{-11}	5,2 10^{-11}	3,2 10^{-11}	1,9 10^{-11}	1,5 10^{-11}
		S	0,020	1,2 10^{-10}	0,010	1,0 10^{-10}	5,3 10^{-11}	3,3 10^{-11}	2,0 10^{-11}	1,6 10^{-11}
Cs-136	13,1 d	F	1,000	7,3 10^{-9}	1,000	5,2 10^{-9}	2,9 10^{-9}	2,0 10^{-9}	1,4 10^{-9}	1,2 10^{-9}
		M	0,200	1,3 10^{-8}	0,100	1,0 10^{-8}	6,0 10^{-9}	3,7 10^{-9}	3,1 10^{-9}	2,5 10^{-9}
		S	0,020	1,5 10^{-8}	0,010	1,1 10^{-8}	5,7 10^{-9}	4,1 10^{-9}	3,5 10^{-9}	2,8 10^{-9}
Cs-137	30,0 a	F	1,000	8,8 10^{-9}	1,000	5,4 10^{-9}	3,6 10^{-9}	3,7 10^{-9}	4,4 10^{-9}	4,6 10^{-9}
		M	0,200	3,6 10^{-8}	0,100	2,9 10^{-8}	1,8 10^{-8}	1,3 10^{-8}	1,1 10^{-8}	9,7 10^{-9}
		S	0,020	1,1 10^{-7}	0,010	1,0 10^{-7}	7,0 10^{-8}	4,8 10^{-8}	4,2 10^{-8}	3,9 10^{-8}
Cs-138	0,536 h	F	1,000	2,6 10^{-10}	1,000	1,8 10^{-10}	8,1 10^{-11}	5,0 10^{-11}	2,9 10^{-11}	2,4 10^{-11}
		M	0,200	4,0 10^{-10}	0,100	2,7 10^{-10}	1,3 10^{-10}	7,8 10^{-11}	4,9 10^{-11}	4,1 10^{-11}
		S	0,020	4,2 10^{-10}	0,010	2,8 10^{-10}	1,3 10^{-10}	8,2 10^{-11}	5,1 10^{-11}	4,3 10^{-11}
Barium(4)										
Ba-126	1,61 h	F	0,600	6,7 10^{-10}	0,200	5,2 10^{-10}	2,4 10^{-10}	1,4 10^{-10}	6,9 10^{-11}	7,4 10^{-11}
		M	0,200	1,0 10^{-9}	0,100	7,2 10^{-10}	3,2 10^{-10}	2,0 10^{-10}	1,2 10^{-10}	1,0 10^{-10}
		S	0,020	1,1 10^{-9}	0,010	7,2 10^{-10}	3,3 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	1,1 10^{-10}
Ba-128	2,43 d	F	0,600	5,9 10^{-9}	0,200	5,4 10^{-9}	2,5 10^{-9}	1,4 10^{-9}	7,4 10^{-10}	7,6 10^{-10}
		M	0,200	1,1 10^{-8}	0,100	7,8 10^{-9}	3,7 10^{-9}	2,4 10^{-9}	1,5 10^{-9}	1,3 10^{-9}
		S	0,020	1,2 10^{-8}	0,010	8,3 10^{-9}	4,0 10^{-9}	2,6 10^{-9}	1,6 10^{-9}	1,4 10^{-9}
Ba-131	11,8 d	F	0,600	2,1 10^{-9}	0,200	1,4 10^{-9}	7,1 10^{-10}	4,7 10^{-10}	3,1 10^{-10}	2,2 10^{-10}
		M	0,200	3,7 10^{-9}	0,100	3,1 10^{-9}	1,6 10^{-9}	1,1 10^{-9}	9,7 10^{-10}	7,6 10^{-10}
		S	0,020	4,0 10^{-9}	0,010	3,0 10^{-9}	1,8 10^{-9}	1,3 10^{-9}	1,1 10^{-9}	8,7 10^{-10}
Ba-131m	0,243 h	F	0,600	2,7 10^{-11}	0,200	2,1 10^{-11}	1,0 10^{-11}	6,7 10^{-12}	4,7 10^{-12}	4,0 10^{-12}
		M	0,200	4,8 10^{-11}	0,100	3,3 10^{-11}	1,7 10^{-11}	1,2 10^{-11}	9,0 10^{-12}	7,4 10^{-12}

		S	0,020	5,0 10^{-11}	0,010	3,5 10^{-11}	1,8 10^{-11}	1,2 10^{-11}	9,5 10^{-12}	7,8 10^{-12}
Ba-133	10,7 a	F	0,600	1,1 10^{-8}	0,200	4,5 10^{-9}	2,6 10^{-9}	3,7 10^{-9}	6,0 10^{-9}	1,5 10^{-9}
		M	0,200	1,5 10^{-8}	0,100	1,0 10^{-8}	6,4 10^{-9}	5,1 10^{-9}	5,5 10^{-9}	3,1 10^{-9}
		S	0,020	3,2 10^{-8}	0,010	2,9 10^{-8}	2,0 10^{-8}	1,3 10^{-8}	1,1 10^{-8}	1,0 10^{-8}
Ba-133m	1,62 d	F	0,600	1,4 10^{-9}	0,200	1,1 10^{-9}	4,9 10^{-10}	3,1 10^{-10}	1,5 10^{-10}	1,8 10^{-10}
		M	0,200	3,0 10^{-9}	0,100	2,2 10^{-9}	1,0 10^{-9}	6,9 10^{-10}	5,2 10^{-10}	4,2 10^{-10}
		S	0,020	3,1 10^{-9}	0,010	2,4 10^{-9}	1,1 10^{-9}	7,6 10^{-10}	5,8 10^{-10}	4,6 10^{-10}
Ba-135m	1,20 d	F	0,600	1,1 10^{-9}	0,200	1,0 10^{-9}	4,6 10^{-10}	2,5 10^{-10}	1,2 10^{-10}	1,4 10^{-10}
		M	0,200	2,4 10^{-9}	0,100	1,8 10^{-9}	8,9 10^{-10}	5,4 10^{-10}	4,1 10^{-10}	3,3 10^{-10}
		S	0,020	2,7 10^{-9}	0,010	1,9 10^{-9}	8,6 10^{-10}	5,9 10^{-10}	4,5 10^{-10}	3,6 10^{-10}
Ba-139	1,38 h	F	0,600	3,3 10^{-10}	0,200	2,4 10^{-10}	1,1 10^{-10}	6,0 10^{-11}	3,1 10^{-11}	3,4 10^{-11}
		M	0,200	5,4 10^{-10}	0,100	3,5 10^{-10}	1,6 10^{-10}	1,0 10^{-10}	6,6 10^{-11}	5,6 10^{-11}
		S	0,020	5,7 10^{-10}	0,010	3,6 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	7,0 10^{-11}	5,9 10^{-11}
Ba-140	12,7 d	F	0,600	1,4 10^{-8}	0,200	7,8 10^{-9}	3,6 10^{-9}	2,4 10^{-9}	1,6 10^{-9}	1,0 10^{-9}
		M	0,200	2,7 10^{-8}	0,100	2,0 10^{-8}	1,1 10^{-8}	7,6 10^{-9}	6,2 10^{-9}	5,1 10^{-9}
		S	0,020	2,9 10^{-8}	0,010	2,2 10^{-8}	1,2 10^{-8}	8,6 10^{-9}	7,1 10^{-9}	5,8 10^{-9}
Ba-141	0,305 h	F	0,600	1,9 10^{-10}	0,200	1,4 10^{-10}	6,4 10^{-11}	3,8 10^{-11}	2,1 10^{-11}	2,1 10^{-11}
		M	0,200	3,0 10^{-10}	0,100	2,0 10^{-10}	9,3 10^{-11}	5,9 10^{-11}	3,8 10^{-11}	3,2 10^{-11}
		S	0,020	3,2 10^{-10}	0,010	2,1 10^{-10}	9,7 10^{-11}	6,2 10^{-11}	4,0 10^{-11}	3,4 10^{-11}
Ba-142	0,177 h	F	0,600	1,3 10^{-10}	0,200	9,6 10^{-11}	4,5 10^{-11}	2,7 10^{-11}	1,6 10^{-11}	1,5 10^{-11}
		M	0,200	1,8 10^{-10}	0,100	1,3 10^{-10}	6,1 10^{-11}	3,9 10^{-11}	2,5 10^{-11}	2,1 10^{-11}
		S	0,020	1,9 10^{-10}	0,010	1,3 10^{-10}	6,2 10^{-11}	4,0 10^{-11}	2,6 10^{-11}	2,2 10^{-11}

Lanthanum

La-131	0,983 h	F	0,005	1,2 10^{-10}	5,0 10^{-4}	8,7 10^{-11}	4,2 10^{-11}	2,6 10^{-11}	1,5 10^{-11}	1,3 10^{-11}
		M	0,005	1,8 10^{-10}	5,0 10^{-4}	1,3 10^{-10}	6,4 10^{-11}	4,1 10^{-11}	2,8 10^{-11}	2,3 10^{-11}
La-132	4,80 h	F	0,005	1,0 10^{-9}	5,0 10^{-4}	7,7 10^{-10}	3,7 10^{-10}	2,2 10^{-10}	1,2 10^{-10}	1,0 10^{-10}
		M	0,005	1,5 10^{-9}	5,0 10^{-4}	1,1 10^{-9}	5,4 10^{-10}	3,4 10^{-10}	2,0 10^{-10}	1,6 10^{-10}
La-135	19,5 h	F	0,005	1,0 10^{-10}	5,0 10^{-4}	7,7 10^{-11}	3,8 10^{-11}	2,3 10^{-11}	1,3 10^{-11}	1,0 10^{-11}
		M	0,005	1,3 10^{-10}	5,0 10^{-4}	1,0 10^{-10}	4,9 10^{-11}	3,0 10^{-11}	1,7 10^{-11}	1,4 10^{-11}
La-137	6,00 10^{4} a	F	0,005	2,5 10^{-8}	5,0 10^{-4}	2,3 10^{-8}	1,5 10^{-8}	1,1 10^{-8}	8,9 10^{-9}	8,7 10^{-9}
		M	0,005	8,6 10^{-9}	5,0 10^{-4}	8,1 10^{-9}	5,6 10^{-9}	4,0 10^{-9}	3,6 10^{-9}	3,6 10^{-9}
La-138	1,35 10^{-11} a	F	0,005	3,7 10^{-7}	5,0 10^{-4}	3,5 10^{-7}	2,4 10^{-7}	1,8 10^{-7}	1,6 10^{-7}	1,5 10^{-7}
		M	0,005	1,3 10^{-7}	5,0 10^{-4}	1,2 10^{-7}	9,1 10^{-8}	6,8 10^{-8}	6,4 10^{-8}	6,4 10^{-8}
La-140	1,68 d	F	0,005	5,8 10^{-9}	5,0 10^{-9}	4,2 10^{-9}	1,2 10^{-9}	1,2 10^{-9}	6,9 10^{-10}	5,7 10^{-10}
		M	0,005	8,8 10^{-9}	5,0 10^{-9}	6,3 10^{-9}	3,1 10^{-9}	2,0 10^{-9}	1,3 10^{-9}	1,1 10^{-9}
La-141	3,93 h	F	0,005	8,6 10^{-10}	5,0 10^{-4}	5,5 10^{-10}	2,3 10^{-10}	1,4 10^{-10}	7,5 10^{-10}	6,3 10^{-11}
		M	0,005	1,4 10^{-9}	5,0 10^{-4}	9,3 10^{-10}	4,3 10^{-10}	2,8 10^{-10}	1,8 10^{-10}	1,5 10^{-10}
La-142	1,54 h	F	0,005	5,3 10^{-10}	5,0 10^{-4}	3,8 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	6,3 10^{-10}	5,2 10^{-11}
		M	0,005	8,1 10^{-10}	5,0 10^{-4}	5,7 10^{-10}	2,7 10^{-10}	1,7 10^{-10}	1,7 10^{-10}	8,9 10^{-11}
La-143	0,237 h	F	0,005	1,4 10^{-10}	5,0 10^{-4}	8,6 10^{-11}	3,7 10^{-11}	2,3 10^{-11}	1,4 10^{-11}	1,2 10^{-11}
		M	0,005	2,1 10^{-10}	5,0 10^{-4}	1,3 10^{-10}	6,0 10^{-11}	3,9 10^{-11}	2,5 10^{-11}	2,1 10^{-11}
Cerium										
Ce-134	3,00 d	F	0,005	7,6 10^{-9}	5,0 10^{-4}	5,3 10^{-9}	2,3 10^{-9}	1,4 10^{-9}	7,7 10^{-10}	5,7 10^{-10}
		M	0,005	1,1 10^{-8}	5,0 10^{-4}	7,6 10^{-9}	3,7 10^{-9}	2,4 10^{-9}	1,5 10^{-9}	1,3 10^{-9}
		S	0,005	1,2 10^{-8}	5,0 10^{-4}	8,0 10^{-9}	3,8 10^{-9}	2,5 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Ce-135	17,6 h	F	0,005	2,3 10^{-9}	5,0 10^{-4}	1,7 10^{-9}	8,5 10^{-10}	5,3 10^{-10}	3,0 10^{-10}	2,4 10^{-10}

		M	0,005	3,6 10^{-9}	5,0 10^{-4}	2,7 10^{-9}	1,4 10^{-9}	8,9 10^{-10}	5,9 10^{-10}	4,8 10^{-10}
		S	0,005	3,7 10^{-9}	5,0 10^{-4}	2,8 10^{-9}	1,4 10^{-9}	9,4 10^{-10}	6,3 10^{-10}	5,0 10^{-10}
Ce-137	9,00 h	F	0,005	7,5 10^{-11}	5,0 10^{-4}	5,6 10^{-11}	2,7 10^{-11}	1,6 10^{-11}	8,7 10^{-11}	7,0 10^{-12}
		M	0,005	1,1 10^{-10}	5,0 10^{-4}	7,6 10^{-11}	3,6 10^{-11}	2,2 10^{-11}	1,2 10^{-11}	9,8 10^{-12}
		S	0,005	1,1 10^{-10}	5,0 10^{-4}	7,8 10^{-11}	3,7 10^{-11}	2,3 10^{-11}	1,3 10^{-11}	1,0 10^{-11}
Ce-137m	1,43 d	F	0,005	1,6 10^{-9}	5,0 10^{-4}	1,1 10^{-9}	4,6 10^{-10}	2,8 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
		M	0,005	3,1 10^{-9}	5,0 10^{-4}	2,2 10^{-9}	1,1 10^{-9}	6,7 10^{-10}	5,1 10^{-10}	4,1 10^{-10}
		S	0,005	3,3 10^{-9}	5,0 10^{-4}	1,0 10^{-9}	1,0 10^{-9}	7,3 10^{-10}	5,6 10^{-10}	4,4 10^{-10}
Ce-139	138 d	F	0,005	1,1 10^{-8}	5,0 10^{-4}	8,5 10^{-9}	4,5 10^{-9}	2,8 10^{-9}	1,8 10^{-9}	1,5 10^{-9}
		M	0,005	7,5 10^{-9}	5,0 10^{-4}	6,1 10^{-9}	3,6 10^{-9}	2,5 10^{-9}	2,1 10^{-9}	1,7 10^{-9}
		S	0,005	7,8 10^{-9}	5,0 10^{-4}	6,3 10^{-9}	3,9 10^{-9}	2,7 10^{-9}	2,4 10^{-9}	1,9 10^{-9}
Ce-141	32,5 d	F	0,005	1,1 10^{-8}	5,0 10^{-4}	7,3 10^{-9}	3,5 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	9,3 10^{-10}
		M	0,005	1,4 10^{-8}	5,0 10^{-4}	1,1 10^{-8}	6,3 10^{-9}	4,6 10^{-9}	4,1 10^{-9}	3,2 10^{-9}
		S	0,005	1,6 10^{-8}	5,0 10^{-4}	1,2 10^{-8}	7,1 10^{-9}	5,3 10^{-9}	4,8 10^{-9}	3,8 10^{-9}
Ce-143	1,38 d	F	0,005	3,6 10^{-9}	5,0 10^{-4}	2,3 10^{-9}	1,0 10^{-9}	6,2 10^{-10}	3,3 10^{-10}	2,7 10^{-10}
		M	0,005	5,6 10^{-9}	5,0 10^{-4}	3,9 10^{-9}	1,9 10^{-9}	1,3 10^{-9}	9,3 10^{-10}	7,5 10^{-10}
		S	0,005	5,9 10^{-9}	5,0 10^{-4}	4,1 10^{-9}	2,1 10^{-9}	1,4 10^{-9}	1,0 10^{-9}	8,3 10^{-10}
Ce-144	284 d	F	0,005	3,6 10^{-7}	5,0 10^{-4}	2,7 10^{-7}	1,4 10^{-7}	7,8 10^{-8}	4,8 10^{-8}	4,0 10^{-8}
		M	0,005	1,9 10^{-7}	5,0 10^{-4}	1,6 10^{-7}	8,8 10^{-8}	5,5 10^{-8}	4,1 10^{-8}	3,6 10^{-8}
		S	0,005	2,1 10^{-7}	5,0 10^{-4}	1,8 10^{-7}	1,1 10^{-7}	7,3 10^{-8}	5,8 10^{-8}	5,3 10^{-8}
Praseodymium										
Pr-136	0,218 h	M	0,005	1,3 10^{-10}	5,0 10^{-4}	8,8 10^{-11}	4,2 10^{-11}	2,6 10^{-11}	1,6 10^{-11}	1,3 10^{-11}
		S	0,00	1,3 10^{-10}	5,0	9,0 10^{-11}	4,3	2,7	1,7 10^{-11}	1,4 10-

			5		10^{-4}		10^{-11}	10^{-11}		11
Pr-137	1,28 h	M	0,005	1,8 10^{-10}	5,0 10^{-4}	1,3 10^{-10}	6,1 10^{-11}	3,9 10^{-11}	2,4 10^{-11}	2,0 10^{-11}
		S	0,005	1,9 10^{-10}	5,0 10^{-4}	1,3 10^{-10}	6,4 10^{-11}	4,0 10^{-11}	2,5 10^{-11}	2,1 10^{-11}
Pr-138m	2,10 h	M	0,005	5,9 10^{-10}	5,0 10^{-4}	4,5 10^{-10}	2,3 10^{-10}	1,4 10^{-10}	9,0 10^{-11}	7,2 10^{-11}
		S	0,005	6,0 10^{-10}	5,0 10^{-4}	4,7 10^{-10}	2,4 10^{-10}	1,5 10^{-10}	9,3 10^{-11}	7,4 10^{-11}
Pr-139	4,51 h	M	0,005	1,5 10^{-10}	5,0 10^{-4}	1,1 10^{-10}	5,5 10^{-11}	3,5 10^{-11}	2,3 10^{-11}	1,8 10^{-11}
		S	0,005	1,6 10^{-10}	5,0 10^{-4}	1,2 10^{-10}	5,7 10^{-11}	3,7 10^{-11}	2,4 10^{-11}	2,0 10^{-11}
Pr-142	19,1 h	M	0,005	5,3 10^{-9}	5,0 10^{-4}	3,5 10^{-9}	1,6 10^{-9}	1,0 10^{-9}	6,2 10^{-10}	5,2 10^{-10}
		S	0,005	5,5 10^{-9}	5,0 10^{-4}	3,7 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	6,6 10^{-10}	5,5 10^{-10}
Pr-142m	0,243h	M	0,005	6,7 10^{-11}	5,0 10^{-4}	4,5 10^{-11}	2,0 10^{-11}	1,3 10^{-11}	7,9 10^{-12}	6,6 10^{-12}
		S	0,005	7,0 10^{-11}	5,0 10^{-4}	4,7 10^{-11}	2,2 10^{-11}	1,4 10^{-11}	8,4 10^{-12}	7,0 10^{-12}
Pr-143	13,6 d	M	0,005	1,2 10^{-8}	5,0 10^{-4}	8,4 10^{-9}	4,6 10^{-9}	3,2 10^{-9}	2,7 10^{-9}	2,2 10^{-9}
		S	0,005	1,3 10^{-8}	5,0 10^{-4}	9,2 10^{-9}	5,1 10^{-9}	3,6 10^{-9}	3,0 10^{-9}	2,4 10^{-9}
Pr-144	0,288 h	M	0,005	1,9 10^{-10}	5,0 10^{-4}	1,2 10^{-10}	5,0 10^{-11}	3,2 10^{-11}	2,1 10^{-11}	1,8 10^{-11}
		S	0,005	1,9 10^{-10}	5,0 10^{-4}	1,2 10^{-10}	5,2 10^{-11}	3,4 10^{-11}	2,1 10^{-11}	1,8 10^{-11}
Pr-145	5,98 h	M	0,005	1,6 10^{-9}	5,0 10^{-4}	1,0 10^{-9}	4,7 10^{-10}	3,0 10^{-10}	1,9 10^{-10}	1,6 10^{-10}
		S	0,005	1,6 10^{-9}	5,0 10^{-4}	1,1 10^{-9}	4,9 10^{-10}	3,2 10^{-10}	2,0 10^{-10}	1,7 10^{-10}
Pr-147	0,227 h	M	0,005	1,5 10^{-10}	5,0 10^{-4}	1,0 10^{-10}	4,8 10^{-11}	3,1 10^{-11}	2,1 10^{-11}	1,8 10^{-11}
		S	0,005	1,6 10^{-10}	5,0 10^{-4}	1,1 10^{-10}	5,0 10^{-11}	3,3 10^{-11}	2,2 10^{-11}	1,8 10^{-11}
Neodymium										
Nd-136	0,844 h	M	0,005	4,6 10^{-10}	5,0 10^{-4}	3,2 10^{-10}	1,6 10^{-10}	9,8 10^{-11}	6,3 10^{-11}	5,1 10^{-11}
		S	0,005	4,8 10^{-10}	5,0 10^{-4}	3,3 10^{-10}	1,6 10^{-10}	1,0 10^{-10}	6,6 10^{-11}	5,4 10^{-11}
Nd-138	5,04 h	M	0,005	2,3 10^{-9}	5,0 10^{-4}	1,7 10^{-9}	7,7 10^{-10}	4,8 10^{-10}	2,8 10^{-10}	2,3 10^{-10}

		S	0,005	2,4 10^{-9}	5,0 10^{-4}	1,8 10^{-9}	8,0 10^{-10}	5,0 10^{-10}	3,0 10^{-10}	2,5 10^{-10}
Nd-139	0,495 h	M	0,005	9,0 10^{-11}	5,0 10^{-4}	6,2 10^{-11}	3,0 10^{-11}	1,2 10^{-11}	9,9 10^{-11}	9,9 10^{-12}
		S	0,005	9,4 10^{-11}	5,0 10^{-4}	6,4 10^{-11}	3,1 10^{-11}	2,0 10^{-11}	1,3 10^{-11}	1,0 10^{-11}
Nd-139m	5,50 h	M	0,005	1,1 10^{-9}	5,0 10^{-4}	8,8 10^{-10}	4,5 10^{-10}	2,9 10^{-10}	1,8 10^{-10}	1,5 10^{-10}
		S	0,005	1,2 10^{-9}	5,0 10^{-4}	9,1 10^{-10}	4,6 10^{-10}	3,0 10^{-10}	1,9 10^{-10}	1,5 10^{-10}
Nd-141	2,49 h	M	0,005	4,1 10^{-11}	5,0 10^{-4}	3,1 10^{-11}	1,5 10^{-11}	9,6 10^{-12}	6,0 10^{-12}	4,8 10^{-12}
		S	0,005	4,3 10^{-11}	5,0 10^{-4}	3,2 10^{-11}	1,6 10^{-11}	1,0 10^{-11}	6,2 10^{-12}	5,0 10^{-12}
Nd-147	11,0 d	M	0,005	1,1 10^{-8}	5,0 10^{-4}	8,0 10^{-9}	4,5 10^{-9}	3,2 10^{-9}	2,6 10^{-9}	2,1 10^{-9}
		S	0,005	1,2 10^{-8}	5,0 10^{-4}	8,6 10^{-9}	4,9 10^{-9}	3,5 10^{-9}	3,0 10^{-9}	2,4 10^{-9}
Nd-149	1,73 h	M	0,005	6,8 10^{-10}	5,0 10^{-4}	4,6 10^{-10}	2,2 10^{-10}	1,5 10^{-10}	1,0 10^{-10}	8,4 10^{-11}
		S	0,005	7,1 10^{-10}	5,0 10^{-4}	4,8 10^{-10}	2,3 10^{-10}	1,5 10^{-10}	1,1 10^{-10}	8,9 10^{-11}
Nd-151	0,207 h	M	0,005	1,5 10^{-10}	5,0 10^{-4}	9,9 10^{-11}	4,6 10^{-11}	3,0 10^{-11}	2,0 10^{-11}	1,7 10^{-11}
		S	0,005	1,5 10^{-10}	5,0 10^{-4}	1,0 10^{-10}	4,8 10^{-11}	3,1 10^{-11}	2,1 10^{-11}	1,7 10^{-11}
Promethium										
Pm-141	0,348 h	M	0,005	1,4 10^{-10}	5,0 10^{-4}	9,4 10^{-11}	4,3 10^{-11}	2,7 10^{-11}	1,7 10^{-11}	1,4 10^{-11}
		S	0,005	1,5 10^{-10}	5,0 10^{-4}	9,7 10^{-11}	4,4 10^{-11}	2,8 10^{-11}	1,8 10^{-11}	1,5 10^{-11}
Pm-143	265 d	M	0,005	6,2 10^{-9}	5,0 10^{-4}	5,4 10^{-9}	3,3 10^{-9}	2,2 10^{-9}	1,7 10^{-9}	1,5 10^{-9}
		S	0,005	5,5 10^{-9}	5,0 10^{-4}	4,8 10^{-9}	3,1 10^{-9}	2,1 10^{-9}	1,7 10^{-9}	1,4 10^{-9}
Pm-144	363 d	M	0,005	3,1 10^{-8}	5,0 10^{-8}	2,8 10^{-8}	1,8 10^{-8}	1,2 10^{-8}	9,3 10^{-9}	8,2 10^{-9}
		S	0,005	2,6 10^{-8}	5,0 10^{-4}	2,4 10^{-8}	1,6 10^{-8}	1,1 10^{-8}	8,9 10^{-9}	7,5 10^{-9}
Pm-145	17,7 a	M	0,005	1,1 10^{-8}	5,0 10^{-4}	9,8 10^{-9}	6,4 10^{-9}	4,3 10^{-9}	3,7 10^{-9}	3,6 10^{-9}
		S	0,005	7,1 10^{-9}	5,0 10^{-9}	6,5 10^{-9}	4,3 10^{-9}	2,9 10^{-9}	2,4 10^{-9}	2,3 10^{-9}

Pm-146	5,53 a	M	0,005	6,4 10^{-8}	5,0 10^{-4}	5,9 10^{-8}	3,9 10^{-8}	2,6 10^{-8}	2,2 10^{-8}	2,1 10^{-8}
		S	0,005	5,3 10^{-8}	5,0 10^{-4}	4,9 10^{-8}	3,3 10^{-8}	2,2 10^{-8}	1,9 10^{-8}	1,7 10^{-8}
Pm-147	2,62 a	M	0,005	2,1 10^{-8}	5,0 10^{-4}	1,8 10^{-8}	1,1 10^{-8}	7,0 10^{-9}	5,7 10^{-9}	5,0 10^{-9}
		S	0,005	1,9 10^{-8}	5,0 10^{-4}	1,6 10^{-8}	1,0 10^{-8}	6,8 10^{-9}	5,8 10^{-9}	4,9 10^{-9}
Pm-148	5,37 d	M	0,005	1,5 10^{-8}	5,0 10^{-4}	1,0 10^{-8}	5,2 10^{-9}	3,4 10^{-9}	2,4 10^{-9}	2,0 10^{-9}
		S	0,005	1,5 10^{-8}	5,0 10^{-4}	1,1 10^{-8}	5,5 10^{-9}	3,7 10^{-9}	2,6 10^{-9}	2,2 10^{-9}
Pm-148m	41,3 d	M	0,005	2,4 10^{-8}	5,0 10^{-4}	1,9 10^{-8}	1,1 10^{-8}	7,7 10^{-9}	6,3 10^{-9}	5,1 10^{-9}
		S	0,005	2,5 10^{-8}	5,0 10^{-4}	2,0 10^{-8}	1,2 10^{-8}	8,3 10^{-9}	7,1 10^{-9}	5,7 10^{-9}
Pm-149	2,21 d	M	0,005	5,0 10^{-9}	5,0 10^{-4}	3,5 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	8,3 10^{-10}	6,7 10^{-10}
		S	0,005	5,3 10^{-9}	5,0 10^{-4}	3,6 10^{-9}	1,8 10^{-9}	1,2 10^{-9}	9,0 10^{-10}	7,3 10^{-10}
Pm-150	2,68 h	M	0,005	1,2 10^{-9}	5,0 10^{-4}	7,9 10^{-10}	3,8 10^{-10}	2,4 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
		S	0,005	1,2 10^{-9}	5,0 10^{-4}	8,2 10^{-10}	3,9 10^{-10}	2,5 10^{-10}	1,6 10^{-10}	1,3 10^{-10}
Pm-151	1,18 d	M	0,005	3,3 10^{-9}	5,0 10^{-4}	2,5 10^{-9}	1,2 10^{-9}	8,3 10^{-10}	5,3 10^{-10}	4,3 10^{-10}
		S	0,005	3,4 10^{-9}	5,0 10^{-4}	2,6 10^{-9}	1,3 10^{-9}	7,9 10^{-10}	5,7 10^{-10}	4,6 1^{-10}
Samarium										
Sm-141	0,170 h	M	0,005	1,5 10^{-10}	5,0 10^{-4}	1,0 10^{-10}	4,7 10^{-11}	2,9 10^{-11}	1,8 10^{-11}	1,5 10^{-11}
Sm-141m	0,377 h	M	0,005	3,0 10^{-10}	5,0 10^{-4}	2,1 10^{-10}	9,7 10^{-11}	6,1 10^{-11}	3,9 10^{-11}	3,2 10^{-11}
Sm-142	1,21 h	M	0,005	7,5 10^{-10}	5,0 10^{-4}	4,8 10^{-10}	2,2 10^{-10}	1,4 10^{-10}	8,5 10^{-11}	7,1 10^{-11}
Sm-145	340 d	M	0,005	8,1 10^{-9}	5,0 10^{-4}	6,8 10^{-9}	4,0 10^{-9}	2,5 10^{-9}	1,9 10^{-4}	1,6 10^{-9}
Sm-146	1,03 10^{8} a	M	0,005	2,7 10^{-5}	5,0 10^{-4}	2,6 10^{-5}	1,7 10^{-5}	1,2 10^{-5}	1,1 10^{-5}	1,1 10^{-5}
Sm-147	1,06 10^{11} a	M	0,005	2,5 10^{-5}	5,0 10^{-4}	2,3 10^{-5}	1,6 10^{-5}	1,1 10^{-5}	9,6 10^{-6}	9,6 10^{-6}
Sm-151	90,0 a	M	0,005	1,1 10^{-8}	5,0 10^{-4}	1,0 10^{-8}	6,7 10^{-9}	4,5 10^{-9}	4,0 10^{-9}	4,0 10^{-9}
Sm-153	1,95 d	M	0,005	4,2 10^{-9}	5,0 10^{-4}	2,9 10^{-9}	1,5 10^{-9}	1,0 10^{-9}	7,9 10^{-10}	6,3 10^{-10}

Sm-155	0,368 h	M	0,005	1,5 10^{-10}	5,0 10^{-4}	9,9 10^{-11}	4,4 10^{-11}	2,9 10^{-11}	2,0 10^{-11}	1,7 10^{-11}
Sm-156	9,40 h	M	0,005	1,6 10^{-9}	5,0 10^{-4}	1,1 10^{-9}	5,8 10^{-10}	3,5 10^{-10}	2,7 10^{-10}	2,2 10^{-10}
Europium										
Eu-145	5,94 d	M	0,005	3,6 10^{-9}	5,0 10^{-4}	2,9 10^{-9}	1,6 10^{-9}	1,0 10^{-9}	6,8 10^{-10}	5,5 10^{-10}
Eu-146	4,61 d	M	0,005	5,5 10^{-9}	5,0 10^{-4}	4,4 10^{-9}	2,4 10^{-9}	1,5 10^{-9}	1,0 10^{-9}	8,0 10^{-10}
Eu-147	24,0 d	M	0,005	4,9 10^{-9}	5,0 10^{-4}	3,7 10^{-9}	2,2 10^{-9}	1,6 10^{-9}	1,3 10^{-9}	1,1 10^{-9}
Eu-148	54,5 d	M	0,005	1,4 10^{-8}	5,0 10^{-4}	1,2 10^{-8}	6,8 10^{-9}	4,6 10^{-9}	3,2 10^{-9}	2,6 10^{-9}
Eu-149	93,1 d	M	0,005	1,6 19^{-9}	5,0 10^{-4}	1,3 10^{-9}	7,3 10^{-10}	4,7 10^{-10}	3,5 10^{-10}	2,9 10^{-10}
Eu-150	34,2 a	M	0,005	1,1 10^{-7}	5,0 10^{-4}	1,1 10^{-7}	7,8 10^{-8}	5,7 10^{-8}	5,3 10^{-8}	5,3 10^{-8}
Eu-150	12,6 h	M	0,005	1,6 10^{-9}	5,0 10^{-4}	1,1 10^{-9}	5,2 10^{-10}	3,4 10^{-10}	2,3 10^{-10}	1,9 10^{-10}
Eu-152	13,3 a	M	0,005	1,1 10^{-7}	5,0 10^{-4}	1,0 10^{-7}	7,0 10^{-8}	4,9 10^{-8}	4,3 10^{-8}	4,2 10^{-8}
Eu-152m	9,32 h	M	0,005	1,9 10^{-9}	5,0 10^{-4}	1,3 10^{-9}	6,6 10^{-10}	4,2 10^{-10}	2,4 10^{-10}	2,2 10^{-10}
Eu-154	8,80 a	M	0,005	1,6 10^{-7}	5,0 10^{-4}	1,5 10^{-7}	9,7 10^{-8}	6,5 10^{-8}	5,6 10^{-8}	5,3 10^{-8}
Eu-155	4,96 a	M	0,005	2,6 10^{-8}	5,0 10^{-8}	2,3 10^{-8}	1,4 10^{-8}	9,2 10^{-9}	7,6 10^{-9}	6,9 10^{-9}
Eu-156	15,2 d	M	0,005	1,9 10^{-8}	5,0 10^{-4}	1,4 10^{-8}	7,7 10^{-9}	5,3 10^{-9}	4,2 10^{-9}	3,4 10^{-9}
Eu-157	15,1 h	M	0,005	2,5 10^{-9}	5,0 10^{-4}	1,9 10^{-9}	8,9 10^{-10}	5,9 10^{-10}	3,5 10^{-10}	2,8 10^{-10}
Eu-158	0,765 h	M	0,005	4,3 10^{-10}	5,0 10^{-4}	2,9 10^{-10}	1,3 10^{-10}	8,5 10^{-11}	5,6 10^{-11}	4,7 10^{-11}
Gadolinium										
Gd-145	0,382 h	F	0,005	1,3 10^{-10}	5,0 10^{-4}	9,6 10^{-11}	4,7 10^{-11}	2,9 10^{-11}	1,7 10^{-11}	1,4 10^{-11}
		M	0,005	1,8 10^{-10}	5,0 10^{-4}	1,3 10^{-10}	6,2 10^{-11}	3,9 10^{-11}	2,4 10^{-11}	2,0 10^{-11}
Gd-146	48,3 d	F	0,005	2,9 10^{-8}	5,0 10^{-4}	2,3 10^{-8}	1,2 10^{-8}	7,8 10^{-9}	5,1 10^{-9}	4,4 10^{-9}
		M	0,005	2,8 10^{-8}	5,0 10^{-4}	2,2 10^{-8}	1,3 10^{-8}	9,3 10^{-9}	7,9 10^{-9}	6,4 10^{-9}
Gd-147	1,59 d	F	0,005	2,1 10^{-9}	5,0 10^{-4}	1,7 10^{-9}	8,4 10^{-10}	5,3 10^{-10}	3,1 10^{-10}	2,6 10^{-10}

		M	0,005	2,8 10^{-9}	5,0 10^{-4}	2,2 10^{-9}	1,1 10^{-9}	7,5 10^{-10}	5,1 10^{-10}	4,0 1^{-10}
Gd-148	93,0 a	F	0,005	8,3 10^{-5}	5,0 10^{-4}	7,6 10^{-5}	4,7 10^{-5}	3,2 10^{-5}	2,6 10^{-5}	2,6 10^{-5}
		M	0,005	3,2 10^{-5}	5,0 10^{-4}	2,9 10^{-5}	1,9 10^{-5}	1,3 10^{-5}	1,2 10^{-5}	1,1 10^{-5}
Gd-149	9,40 d	F	0,005	2,6 10^{-9}	5,0 10^{-4}	2,0 10^{-9}	8,0 10^{-10}	5,1 10^{-10}	3,1 10^{-10}	2,6 10^{-10}
		M	0,005	3,6 10^{-9}	5,0 10^{-4}	3,0 10^{-9}	1,5 10^{-9}	1,1 10^{-9}	9,2 10^{-10}	7,3 10^{-10}
Gd-151	120 d	F	0,005	6,3 10^{-9}	5,0 10^{-4}	4,9 10^{-9}	2,5 10^{-9}	1,5 10^{-9}	9,2 10^{-10}	7,8 10^{-10}
		M	0,005	4,5 10^{-9}	5,0 10^{-4}	3,5 10^{-9}	2,0 10^{-9}	1,3 10^{-9}	1,0 10^{-9}	8,6 10^{-10}
Gd-152	1,08 10^{14} a	F	0,005	5,9 10^{-5}	5,0 10^{-4}	5,4 10^{-5}	3,4 10^{-5}	2,4 10^{-5}	1,9 10^{-5}	1,9 10^{-5}
		M	0,005	2,1 10^{-5}	5,0 10^{-4}	1,9 10^{-5}	1,3 10^{-5}	8,9 10^{-9}	7,9 10^{-6}	8,0 10^{-9}
Gd-153	242 d	F	0,005	1,5 10^{-8}	5,0 10^{-4}	1,2 10^{-8}	6,5 10^{-9}	3,9 10^{-9}	2,4 10^{-9}	2,1 10^{-9}
		M	0,005	9,9 10^{-9}	5,0 10^{-4}	7,9 10^{-9}	4,8 10^{-9}	3,1 10^{-9}	2,5 10^{-9}	2,1 10^{-9}
Gd-159	18,6 h	F	0,005	1,2 10^{-9}	5,0 10^{-4}	8,9 10^{-10}	3,8 10^{-10}	2,3 10^{-10}	1,2 10^{-10}	1,0 10^{-10}
		M	0,005	2,2 10^{-9}	5,0 10^{-4}	1,5 10^{-9}	7,3 10^{-10}	4,9 10^{-10}	3,4 10^{-10}	2,7$0^{-10}$
Terbium										
Tb-147	1,65 h	M	0,005	6,7 10^{-10}	5,0 10^{-4}	4,8 10^{-10}	2,3 10^{-10}	1,5 10^{-10}	9,3 10^{-11}	7,6 10^{-11}
Tb-149	4,15 h	M	0,005	2,1 10^{-8}	5,0 10^{-4}	1,5 10^{-8}	9,6 10^{-9}	6,6 10^{-9}	5,8 10^{-9}	4,9 10^{-9}
Tb-150	3,27 h	M	0,005	1,0 10^{-9}	5,0 10^{-4}	7,4 10^{-10}	3,5 10^{-10}	2,2 10^{-10}	1,3 10^{-10}	1,1 10^{-10}
Tb-151	17,6 h	M	0,005	1,6 10^{-9}	5,0 10^{-4}	1,2 10^{-9}	6,3 10^{-10}	4,2 10^{-10}	2,8 10^{-10}	2,3 10^{-10}
Tb-153	2,34 d	M	0,005	1,4 10^{-9}	5,0 10^{-4}	1,0 10^{-9}	5,4 10^{-10}	3,6 10^{-10}	2,3 10^{-10}	1,9 10^{-10}
Tb-154	21,4 h	M	0,005	2,7 10^{-9}	5,0 10^{-4}	2,1 10^{-9}	1,1 10^{-9}	7,1 10^{-10}	4,5 10^{-10}	3,6 10^{-10}
Tb-155	5,32 d	M	0,005	1,4 10^{-9}	5,0 10^{-4}	1,0 10^{-9}	5,6 10^{-10}	3,4 10^{-10}	2,7 10^{-10}	2,2 10^{-10}
Tb-156	5,34 d	M	0,005	7,0 10^{-9}	5,0 10^{-4}	5,4 10^{-9}	3,0 10^{-9}	2,0 10^{-9}	1,5 10^{-9}	1,2 10^{-9}
Tb-156m	1,02 d	M	0,005	1,1 10^{-9}	5,0 10^{-4}	9,4 10^{-10}	4,7 10^{-10}	3,3 10^{-10}	2,7 10^{-10}	2,1 10^{-10}

Tb-156m	5,00 h	M	0,005	6,2 10^{-10}	5,0 10^{-4}	4,5 10^{-10}	2,4 10^{-10}	1,7 10^{-10}	1,2 10^{-10}	9,6 10^{-11}
Tb-157	1,50 10^{2} a	M	0,005	3,2 10^{-9}	5,0 10^{-4}	3,0 10^{-9}	2,0 10^{-9}	1,4 10^{-9}	1,2 10^{-9}	1,2 10^{-9}
Tb-158	1,50 10^{2} a	M	0,005	1,1 10^{-7}	5,0 10^{-4}	1,0 10^{-7}	7,0 10^{-8}	5,1 10^{-8}	4,7 10^{-8}	4,6 10^{-8}
Tb-160	72,3 d	M	0,005	3,2 10^{-8}	5,0 10^{-4}	2,5 10^{-8}	1,5 10^{-8}	1,0 10^{-8}	8,6 10^{-9}	7,0 10^{-9}
Tb-161	6,91 d	M	0,005	6,6 10^{-9}	5,0 10^{-4}	4,7 10^{-9}	2,6 10^{-9}	1,9 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Dysprosium										
Dy-155	10,0 h	M	0,005	5,6 10^{-10}	5,0 10^{-4}	4,4 10^{-10}	2,3 10^{-10}	1,5 10^{-10}	9,6 10^{-11}	7,7 10^{-11}
Dy-157	8,10 h	M	0,005	2,4 10^{-10}	5,0 10^{-4}	1,9 10^{-10}	9,9 10^{-11}	6,2 10^{-11}	3,8 10^{-11}	3,0 10^{-11}
Dy-159	144 d	M	0,005	2,1 10^{-9}	5,0 10^{-4}	1,7 10^{-9}	9,6 10^{-10}	6,0 10^{-10}	4,4 10^{-10}	3,7 10^{-10}
Dy-165	2,33 h	M	0,005	5,2 10^{-10}	5,0 10^{-4}	3,4 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	7,2 10^{-11}	6,0 10^{-11}
Dy-166	3,40 d	M	0,005	1,2 10^{-8}	5,0 10^{-4}	8,3 10^{-9}	4,4 10^{-9}	3,0 10^{-9}	2,3 10^{-9}	1,9 10^{-9}
Holmium										
Ho-155	0,800 h	M	0,005	1,7 10^{-10}	5,0 10^{-4}	1,2 10^{-10}	5,8 10^{-11}	3,7 10^{-11}	2,4 10^{-11}	2,0 10^{-11}
Ho-157	0,210 h	M	0,005	3,4 10^{-11}	5,0 10^{-4}	2,5 10^{-4}	1,3 10^{-11}	8,0 10^{-12}	5,1 10^{-12}	4,2 10^{-12}
Ho-159	0,550 h	M	0,005	4,6 10^{-11}	5,0 10^{-4}	3,3 10^{-11}	1,7 10^{-11}	1,1 10^{-11}	7,5 10^{-12}	6,1 10^{-12}
Ho-161	2,50 h	M	0,005	5,7 10^{-11}	5,0 10^{-4}	4,0 10^{-11}	2,0 10^{-11}	1,2 10^{-11}	7,5 10^{-12}	6,0 10^{-12}
Ho-162	0,250 h	M	0,005	2,1 10^{-11}	5,0 10^{-4}	1,5 10^{-11}	7,2 10^{-12}	4,8 10^{-12}	3,4 10^{-12}	2,8 10^{-12}
Ho-162m	1,13 h	M	0,005	1,5 10^{-10}	5,0 10^{-4}	1,1 10^{-10}	5,8 10^{-11}	3,8 10^{-11}	2,6 10^{-11}	2,1 10^{-11}
Ho-164	0,483 h	M	0,005	6,8 10^{-4}	5,0 10^{-4}	4,5 10^{-11}	2,1 10^{-11}	1,4 10^{-11}	9,9 10^{-12}	8,4 10^{-12}
Ho-164m	0,625 h	M	0,005	9,1 10^{-11}	5,0 10^{-4}	5,9 10^{-11}	3,0 10^{-11}	2,0 10^{-11}	1,3 10^{-11}	1,2 10^{-11}
Ho-166	1,12 d	M	0,005	6,0 10^{-9}	5,0 10^{-4}	4,0 10^{-9}	1,9 10^{-9}	1,2 10^{-9}	7,9 10^{-10}	6,5 10^{-10}
Ho-166m	1,20 10^{3} a	M	0,005	2,6 10^{-7}	5,0 10^{-4}	2,5 10^{-7}	1,8 10^{-7}	1,3 10^{-7}	1,2 10^{-7}	1,2 10^{-7}
Ho-167	3,10 h	M	0,005	5,2 10^{-10}	5,0 10^{-4}	3,6 10^{-10}	1,8 10^{-10}	1,2 10^{-10}	8,7 10^{-11}	7,1 10^{-11}

Erbium										
Er-161	3,24 h	M	0,005	3,8 10^{-10}	5,0 10^{-4}	2,9 10^{-10}	1,5 10^{-10}	9,5 10^{-11}	6,0 10^{-11}	4,8 10^{-11}
Er-165	10,4 h	M	0,005	7,2 10^{-11}	5,0 10^{-4}	5,3 10^{-11}	2,6 10^{-11}	1,6 10^{-11}	9,6 10^{-12}	7,9 10^{-12}
Er-169	9,30 d	M	0,005	4,7 10^{-9}	5,0 10^{-4}	3,5 10^{-9}	2,0 10^{-9}	1,5 10^{-9}	1,3 10^{-9}	1,0 10^{-9}
Er-171	7,52 h	M	0,005	1,8 10^{-9}	5,0 10^{-4}	1,2 10^{-9}	5,9 10^{-10}	3,9 10^{-10}	2,7 10^{-10}	2,2 10^{-10}
Er-172	2,05 d	M	0,005	6,6 10^{-9}	5,0 10^{-4}	4,7 10^{-9}	2,5 10^{-9}	1,7 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Thulium										
Tm-162	0,362 h	M	0,005	1,3 10^{-10}	5,0 10^{-4}	9,6 10^{-11}	4,7 10^{-11}	3,0 10^{-11}	1,9 10^{-11}	1,6 10^{-11}
Tm-166	7,70 h	M	0,005	1,3 10^{-9}	5,0 10^{-4}	9,9 10^{-10}	5,2 10^{-10}	3,3 10^{-10}	2,2 10^{-10}	1,7 10^{-10}
Tm-167	9,24 d	M	0,005	5,6 10^{-9}	5,0 10^{-4}	4,1 10^{-9}	2,3 10^{-9}	1,7 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Tm-170	129 d	M	0,005	3,6 10^{-8}	5,0 10^{-4}	2,8 10^{-8}	1,6 10^{-8}	1,1 10^{-8}	8,5 10^{-9}	7,0 10^{-9}
Tm-171	1,92 a	M	0,005	6,8 10^{-9}	5,0 10^{-4}	5,7 10^{-9}	3,4 10^{-9}	2,0 10^{-9}	1,6 10^{-9}	1,4 10^{-9}
Tm-172	2,65 d	M	0,005	8,4 10^{-9}	5,0 10^{-4}	5,8 10^{-9}	2,9 10^{-9}	1,9 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Tm-173	8,24 h	M	0,005	1,5 10^{-9}	5,0 10^{-4}	1,0 10^{-9}	5,0 10^{-10}	3,3 10^{-10}	2,2 10^{-10}	1,8 10^{-10}
Tm-175	0,253 h	M	0,005	1,6 10^{-10}	5,0 10^{-4}	1,1 10^{-10}	5,0 10^{-11}	3,3 10^{-11}	2,2 10^{-11}	1,8 10^{-11}
Ytterbium										
Yb-162	0,315 h	M	0,005	1,1 10^{-10}	5,0 10^{-4}	7,9 10^{-11}	3,9 10^{-11}	2,5 10^{-11}	1,6 10^{-11}	1,3 10^{-11}
		S	0,005	1,2 10^{-10}	5,0 10^{-4}	8,2 10^{-11}	4,0 10^{-11}	2,6 10^{-11}	1,7 10^{-11}	1,4 10^{-11}
Yb-166	2,36 d	M	0,005	4,7 10^{-9}	5,0 10^{-4}	3,5 10^{-9}	1,9 10^{-9}	1,3 10^{-9}	9,0 10^{-10}	7,2 10^{-10}
		S	0,005	4,9 10^{-9}	5,0 10^{-4}	3,7 10^{-9}	2,0 10^{-9}	1,3 10^{-9}	9,6 10^{-10}	7,7 10^{-10}
Yb-167	0,292 h	M	0,005	4,4 10^{-11}	5,0 10^{-4}	3,2 10^{-11}	1,7 10^{-11}	1,1 10^{-11}	8,4 10^{-12}	6,9 10^{-12}
		S	0,005	4,6 10^{-11}	5,0 10^{-4}	3,2 10^{-11}	1,7 10^{-11}	1,1 10^{-11}	8,4 10^{-12}	6,9 10^{-12}
Yb-169	32,0 d	M	0,005	1,2 10^{-8}	5,0 10^{-4}	8,7 10^{-9}	5,1 10^{-9}	3,7 10^{-9}	3,2 10^{-9}	2,5 10^{-9}
		S	0,00	1,3 10^{-8}	5,0	9,8 10^{-9}	5,9	4,2	3,7 10^{-9}	8,0 10-

			5		10^{-4}		10^{-9}	10^{-9}		9
Yb-175	4,19 d	M	0,005	3,5 10^{-9}	5,0 10^{-4}	2,5 10^{-9}	1,4 10^{-9}	9,8 10^{-10}	8,3 10^{-10}	6,5 10^{-10}
		S	0,005	3,7 10^{-9}	5,0 10^{-4}	2,7 10^{-9}	1,5 10^{-9}	1,1 10^{-9}	9,2 10^{-10}	7,3 10^{-10}
Yb-177	1,90 h	M	0,005	5,0 10^{-10}	5,0 10^{-4}	3,3 10^{-10}	1,6 10^{-10}	1,1 10^{-10}	7,8 10^{-11}	6,4 10^{-11}
		S	0,005	5,3 10^{-10}	5,0 10^{-4}	3,5 10^{-10}	1,7 10^{-10}	1,2 10^{-10}	8,4 10^{-11}	6,9 10^{-11}
Yb-178	1,23 h	M	0,005	5,9 10^{-10}	5,0 10^{-4}	3,9 10^{-10}	1,8 10^{-10}	1,2 10^{-10}	8,5 10^{-11}	7,0 10^{-11}
		S	0,005	6,2 10^{-10}	5,0 10^{-4}	4,1 10^{-10}	1,9 10^{-10}	1,3 10^{-10}	9,1 10^{-11}	7,5 10^{-11}
Lutetium										
Lu-169	1,42 d	M	0,005	2,3 10^{-9}	5,0 10^{-4}	1,8 10^{-9}	9,5 10^{-10}	6,3 10^{-10}	4,4 10^{-10}	3,5 10^{-10}
		S	0,005	2,4 10^{-9}	5,0 10^{-4}	1,9 10^{-9}	1,0 10^{-9}	6,7 10^{-10}	4,8 10^{-10}	3,8 10^{-10}
Lu-170	2,00 d	M	0,005	4,3 10^{-9}	5,0 10^{-4}	3,4 10^{-9}	1,8 10^{-9}	1,2 10^{-9}	7,8 10^{-10}	6,3 10^{-10}
		S	0,005	4,5 10^{-9}	5,0 10^{-9}	3,5 10^{-9}	1,8 10^{-9}	1,2 10^{-9}	8,2 10^{-10}	6,6 10^{-10}
Lu-171	8,22 d	M	0,005	5,0 10^{-9}	5,0 10^{-4}	3,7 10^{-9}	2,1 10^{-9}	1,2 10^{-9}	9,8 10^{-10}	8,0 10^{-10}
		S	0,005	4,7 10^{-9}	5,0 10^{-4}	3,9 10^{-9}	2,0 10^{-9}	1,4 10^{-9}	1,1 10^{-9}	8,8 10^{-10}
Lu-172	6,70 d	M	0,005	8,7 10^{-9}	5,0 10^{-4}	6,7 10^{-9}	3,8 10^{-9}	2,6 10^{-9}	1,8 10^{-9}	1,4 10^{-9}
		S	0,005	9,3 10^{-9}	5,0 10^{-4}	7,1 10^{-9}	4,0 10^{-9}	2,8 10^{-9}	2,0 10^{-9}	1,6 10^{-9}
Lu-173	1,37 a	M	0,005	1,0 10^{-8}	5,0 10^{-4}	8,5 10^{-9}	5,1 10^{-9}	3,2 10^{-9}	2,5 10^{-9}	2,2 10^{-9}
		S	0,005	1,0 10^{-8}	5,0 10^{-4}	8,7 10^{-9}	5,4 10^{-9}	3,6 10^{-9}	2,9 10^{-9}	2,4 10^{-9}
Lu-174	3,31 a	M	0,005	1,7 10^{-8}	5,0 10^{-4}	1,5 10^{-8}	9,1 10^{-9}	5,8 10^{-9}	4,7 10^{-9}	4,2 10^{-9}
		S	0,005	1,6 10^{-8}	5,0 10^{-4}	1,4 10^{-8}	8,9 10^{-9}	5,9 10^{-9}	4,9 10^{-9}	4,2 10^{-9}
Lu-174m	142 d	M	0,005	1,9 10^{-8}	5,0 10^{-4}	1,4 10^{-8}	8,6 10^{-9}	5,4 10^{-9}	4,3 10^{-9}	3,7 10^{-9}
		S	0,005	2,0 10^{-8}	5,0 10^{-4}	1,5 10^{-8}	9,2 10^{-9}	6,1 10^{-9}	5,0 10^{-9}	4,2 10^{-9}
Lu-176	3,60 10^{10} a	M	0,005	1,8 10^{-7}	5,0 10^{-4}	1,7 10^{-7}	1,1 10^{-7}	7,8 10^{-8}	7,1 10^{-8}	7,0 10^{-8}

		S	0,005	1,5 10-7	5,0 10-4	1,4 10-7	9,4 10-8	6,5 10-8	5,9 10-8	5,6 10-8
Lu-176m	3,68 h	M	0,005	8,9 10-10	5,0 10-4	5,9 10-10	2,8 10-10	1,9 10-10	1,2 10-10	1,1 10-10
		S	0,005	9,3 10-10	5,0 10-4	6,2 10-10	3,0 10-10	2,0 10-10	1,2 10-10	1,2 10-10
Lu-177	6,71 d	M	0,005	5,3 10-9	5,0 10-4	3,8 10-9	2,2 10-9	1,6 10-9	1,4 10-9	1,1 10-9
		S	0,005	5,7 10-9	5,0 10-4	4,1 10-9	2,4 10-9	1,7 10-9	1,5 10-9	1,2 10-9
Lu-177m	161 d	M	0,005	5,8 10-8	5,0 10-4	4,6 10-8	2,8 10-8	1,9 10-8	1,6 10-8	1,3 10-8
		S	0,005	6,5 10-8	5,0 10-4	5,3 10-8	3,2 10-8	2,3 10-8	2,0 10-8	1,6 10-8
Lu-178	0,473 h	M	0,005	2,3 10-10	5,0 10-4	1,5 10-10	6,6 10-11	4,3 10-11	2,9 10-11	2,4 10-11
		S	0,005	2,4 10-10	5,0 10-4	1,5 10-10	6,9 10-11	4,5 10-11	3,0 10-11	2,6 10-11
Lu-178m	0,378 h	M	0,005	2,6 10-10	5,0 10-4	1,8 10-10	8,3 10-11	5,6 10-11	3,8 10-11	3,2 10-11
		S	0,005	2,7 10-10	5,0 10-4	1,9 10-10	8,7 10-11	5,8 10-11	4,0 10-11	3,3 10-11
Lu-179	4,59 h	M	0,005	9,9 10-10	5,0 10-4	6,5 10-10	3,0 10-10	2,0 10-10	1,2 10-10	1,1 10-10
		S	0,005	1,0 10-9	5,0 10-4	6,8 10-10	3,2 10-10	2,1 10-10	1,3 10-10	1,2 10-10
Hafnium										
Hf-170	16,0 h	F	0,020	1,4 10-9	0,002	1,1 10-9	5,4 10-10	3,4 10-10	2,0 10-10	1,6 10-10
		M	0,020	2,2 10-9	0,002	1,7 10-9	8,7 10-10	5,8 10-10	3,9 10-10	3,2 10-10
Hf-172	1,87 a	F	0,020	1,5 10-7	0,002	1,3 10-7	7,8 10-8	4,9 10-8	3,5 10-8	3,2 10-8
		M	0,020	8,1 10-8	0,002	6,9 10-8	4,3 10-8	2,8 10-8	2,3 10-8	2,0 10-8
Hf-173	24,0 h	F	0,020	6,6 10-10	0,002	5,0 10-10	2,5 10-10	1,5 10-10	8,9 10-11	7,4 10-11
		M	0,020	1,1 10-9	0,002	8,2 10-10	4,3 10-10	2,9 10-10	2,0 10-10	1,6 10-10
Hf-175	70,0 d	F	0,020	5,4 10-9	0,002	4,0 10-9	2,1 10-9	1,3 10-9	8,5 10-10	7,2 10-10
		M	0,020	5,8 10-9	0,002	4,5 10-9	2,6 10-9	1,8 10-9	1,4 10-9	1,2 10-9
Hf-177m	0,856 h	F	0,020	3,9 10-10	0,002	2,8 10-10	1,3 10-10	8,5 10-11	5,2 10-11	4,4 10-11

		M	0,020	6,5 10^{-10}	0,002	4,7 10^{-10}	2,3 10^{-10}	1,5 10^{-10}	1,1 10^{-10}	9,0 10^{-11}
Hf-178m	31,0 a	F	0,020	6,2 10^{-7}	0,002	5,8 10^{-7}	4,0 10^{-7}	3,1 10^{-7}	2,7 10^{-7}	2,6 10^{-7}
		M	0,020	2,6 10^{-7}	0,002	2,4 10^{-7}	1,7 10^{-7}	1,3 10^{-7}	1,2 10^{-7}	1,2 10^{-7}
Hf-179m	25,1 d	F	0,020	9,7 10^{-9}	0,002	6,8 10^{-9}	3,4 10^{-9}	2,1 10^{-9}	1,2 10^{-9}	1,1 10^{-9}
		M	0,020	1,7 10^{-8}	0,002	1,3 10^{-8}	7,6 10^{-9}	5,5 10^{-9}	4,8 10^{-9}	3,8 10^{-9}
Hf-180m	5,50 h	F	0,020	5,4 10^{-10}	0,002	4,1 10^{-10}	2,0 10^{-10}	1,3 10^{-10}	7,2 10^{-11}	5,9 10^{-11}
		M	0,020	9,1 10^{-10}	0,002	6,8 10^{-10}	3,6 10^{-10}	2,4 10^{-10}	1,7 10^{-10}	1,3 10^{-10}
Hf-181	42,4 d	F	0,020	1,3 10^{-8}	0,002	9,6 10^{-9}	4,8 10^{-9}	2,8 10^{-9}	1,7 10^{-9}	1,4 10^{-9}
		M	0,020	2,2 10^{-8}	0,002	1,7 10^{-8}	9,9 10^{-9}	7,1 10^{-9}	6,3 10^{-9}	5,0 10^{-9}
Hf-182	9,00 10^{6} a	F	0,020	6,5 10^{-7}	0,002	6,2 10^{-7}	1,3 10^{-7}	4,4 10^{-7}	3,6 10^{-7}	3,1 10[illegible]
		M	0,020	2,4 10^{-7}	0,002	2,3 10^{-7}	1,7 10^{-7}	1,3 10^{-7}	1,3 10^{-7}	1,3 10^{-7}
Hf-182m	1,02 h	F	0,020	1,9 10^{-10}	0,002	1,4 10^{-10}	6,6 10^{-11}	4,2 10^{-11}	2,6 10^{-11}	2,1 10^{-11}
		M	0,020	3,2 10^{-10}	0,002	2,3 10^{-10}	1,2 10^{-10}	7,8 10^{-11}	5,6 10^{-11}	4,6 10^{-11}
Hf-183	1,07 h	F	0,020	2,5 10^{-10}	0,002	1,7 10^{-10}	7,9 10^{-11}	4,9 10^{-11}	2,8 10^{-11}	2,4 10^{-11}
		M	0,020	4,4 10^{-10}	0,002	3,0 10^{-10}	1,5 10^{-10}	9,8 10^{-11}	7,0 10^{-11}	5,7 10^{-11}
Hf-184	4,12 h	F	0,020	1,4 10^{-9}	0,002	9,6 10^{-10}	4,3 10^{-10}	2,7 10^{-10}	1,4 10^{-10}	1,2 10^{-10}
		M	0,020	2,6 10^{-9}	0,002	1,8 10^{-9}	8,9 10^{-10}	5,9 10^{-10}	4,0 10^{-10}	3,3 10^{-10}
Tantalum										
Ta-172	0,613 h	M	0,010	2,8 10^{-10}	0,001	1,9 10^{-10}	9,3 10^{-11}	6,0 10^{-11}	4,0 10^{-11}	3,3 10^{-11}
		S	0,010	2,9 10^{-10}	0,001	2,0 10^{-10}	9,8 10^{-11}	6,3 10^{-11}	4,2 10^{-11}	3,5 10^{-11}
Ta-173	3,65 h	M	0,010	8,8 10^{-10}	0,001	6,2 10^{-10}	3,0 10^{-10}	2,0 10^{-10}	1,3 10^{-10}	1,1 10^{-10}
		S	0,010	9,2 10^{-10}	0,001	6,5 10^{-10}	3,2 10^{-10}	2,1 10^{-10}	1,4 10^{-10}	1,1 10^{-10}

Ta-174	1,20 h	M	0,010	3,2 10^{-10}	0,001	2,2 10^{-10}	1,1 10^{-10}	7,1 10^{-11}	5,0 10^{-11}	4,1 10^{-11}
		S	0,010	3,4 10^{-10}	0,001	2,3 10^{-10}	1,1 10^{-10}	7,5 10^{-11}	5,3 10^{-11}	4,3 10^{-11}
Ta-175	10,5 h	M	0,010	9,1 10^{-10}	0,001	7,0 10^{-10}	3,7 10^{-10}	2,4 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
		S	0,010	9,5 10^{-10}	0,001	7,3 10^{-10}	3,8 10^{-10}	2,5 10^{-10}	1,6 10^{-10}	1,3 10^{-10}
Ta-176	8,08 h	M	0,010	1,4 10^{-9}	0,001	1,1 10^{-9}	5,7 10^{-10}	3,7 10^{-10}	2,4 10^{-10}	1,9 10^{-10}
		S	0,010	1,4 10^{-9}	0,001	1,1 10^{-9}	5,9 10^{-10}	3,8 10^{-10}	2,5 10^{-10}	2,0 10^{-10}
Ta-177	2,36 d	M	0,010	6,5 10^{-10}	0,001	4,7 10^{-10}	2,5 10^{-10}	1,5 10^{-10}	1,2 10^{-10}	9,6 10^{-11}
		S	0,010	6,9 10^{-10}	0,001	5,0 10^{-10}	2,7 10^{-10}	1,7 10^{-10}	1,3 10^{-10}	1,1 10^{-10}
Ta-178	2,20 h	M	0,010	4,4 10^{-10}	0,001	3,3 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	8,0 10^{-11}	6,5 10^{-11}
		S	0,010	4,6 10^{-10}	0,001	3,4 10^{-10}	1,8 10^{-10}	1,2 10^{-10}	8,5 10^{-11}	6,8 10^{-11}
Ta-179	1,82 a	M	0,010	1,2 10^{-9}	0,001	9,6 10^{-10}	5,5 10^{-10}	3,5 10^{-10}	2,6 10^{-10}	2,2 10^{-10}
		S	0,010	2,4 10^{-9}	0,001	2,1 10^{-9}	1,3 10^{-9}	8,3 10^{-10}	6,4 10^{-10}	5,6 10^{-10}
Ta-180	1,00 10^{13} a	M	0,010	2,7 10^{-8}	0,001	2,2 10^{-8}	1,3 10^{-8}	9,2 10^{-9}	7,9 10^{-9}	6,4 10^{-9}
		S	0,010	7,0 10^{-8}	0,001	6,5 10^{-8}	4,5 10^{-8}	3,1 10^{-8}	2,8 10^{-8}	2,6 10^{-8}
Ta-180 m	8,10 h	M	0,010	3,1 10^{-10}	0,001	2,2 10^{-10}	1,1 10^{-10}	7,4 10^{-11}	4,8 10^{-11}	4,4 10^{-11}
		S	0,010	3,3 10^{-10}	0,001	2,3 10^{-10}	1,2 10^{-10}	7,9 10^{-11}	5,2 10^{-11}	4,2 10^{-11}
Ta-182	115 d	M	0,010	3,2 10^{-8}	0,001	2,6 10^{-8}	1,5 10^{-8}	1,1 10^{-8}	9,5 10^{-9}	7,6 10^{-9}
		S	0,010	4,2 10^{-8}	0,001	3,4 10^{-8}	2,1 10^{-8}	1,5 10^{-8}	1,3 10^{-8}	1,0 10^{-8}
Ta-182m	0,264 h	M	0,010	1,6 10^{-10}	0,001	1,1 10^{-10}	4,9 10^{-11}	3,4 10^{-11}	2,4 10^{-11}	2,0 10^{-11}
		S	0,010	1,6 10^{-10}	0,001	1,1 10^{-10}	5,2 10^{-11}	3,6 10^{-11}	2,5 10^{-11}	2,1 10^{-11}
Ta-183	5,10 d	M	0,010	1,0 10^{-8}	0,001	7,4 10^{-9}	4,1 10^{-9}	2,9 10^{-9}	2,4 10^{-9}	1,9 10^{-9}
		S	0,010	1,1 10^{-8}	0,001	8,0 10^{-9}	4,5 10^{-9}	3,2 10^{-9}	2,7 10^{-9}	2,1 10^{-9}
Ta-184	8,70 h	M	0,01	3,2 10^{-9}	0,00	2,3 10^{-9}	1,1	7,5	5,0 10^{-10}	4,1 10-

			0		1		10^{-9}	10^{-10}		10
		S	0,010	3,4 10^{-9}	0,001	2,4 10^{-9}	1,2 10^{-9}	7,9 10^{-10}	5,4 10^{-10}	4,3 10^{-10}
Ta-185	0,816 h	M	0,010	3,8 10^{-10}	0,001	2,5 10^{-10}	1,2 10^{-10}	7,7 10^{-11}	5,4 10^{-11}	4,5 10^{-11}
		S	0,010	4,0 10^{-10}	0,001	2,6 10^{-10}	1,2 10^{-10}	8,2 10^{-11}	5,7 10^{-11}	4,8 10^{-11}
Ta-186	0,175 h	M	0,010	1,6 10^{-10}	0,001	1,1 10^{-10}	4,8 10^{-11}	3,1 10^{-11}	2,0 10^{-11}	1,7 10^{-11}
		S	0,010	1,6 10^{-10}	0,001	1,1 10^{-10}	5,0 10^{-11}	3,2 10^{-11}	2,1 10^{-11}	1,8 10^{-11}
Tungsten										
W-176	2,30 h	F	0,600	3,3 10^{-10}	0,300	2,7 10^{-10}	1,4 10^{-10}	8,6 10^{-11}	5,0 10^{-11}	4,1 10^{-11}
W-177	2,25 h	F	0,600	2,0 10^{-10}	0,300	1,6 10^{-10}	8,2 10^{-11}	5,1 10^{-11}	3,0 10^{-11}	2,4 10^{-11}
W-178	21,7 d	F	0,600	7,2 10^{-10}	0,300	5,4 10^{-10}	2,5 10^{-10}	1,6 10^{-11}	8,7 10^{-11}	7,2 10^{-11}
W-179	0,625 h	F	0,600	9,3 10^{-12}	0,300	6,8 10^{-12}	3,3 10^{-12}	2,0 10^{-12}	1,2 10^{-12}	9,2 10^{-13}
W-181	121 d	F	0,600	2,5 10^{-10}	0,300	1,9 10^{-10}	9,2 10^{-11}	5,7 10^{-11}	3,2 10^{-11}	2,7 10^{-11}
W-185	75,1 d	F	0,600	1,4 10^{-9}	0,300	1,0 10^{-9}	4,4 10^{-10}	2,7 10^{-10}	1,4 10^{-10}	1,2 10^{-10}
W-187	23,9 h	F	0,600	2,0 10^{-9}	0,300	1,5 10^{-9}	7,0 10^{-10}	4,3 10^{-10}	2,3 10^{-10}	1,9 10^{-10}
W-188	69,4 d	F	0,600	7,1 10^{-9}	0,300	5,0 10^{-9}	2,2 10^{-9}	1,3 10^{-9}	6,8 10^{-10}	5,7 10^{-10}
Rhenium										
Re-177	0,233 h	F	1,000	9,4 10^{-11}	0,800	6,7 10^{-11}	3,2 10^{-11}	1,9 10^{-11}	1,2 10^{-11}	9,7 10^{-12}
		M	1,000	1,1 10^{-10}	0,800	7,9 10^{-11}	3,9 10^{-11}	2,5 10^{-11}	1,7 10^{-11}	1,4 10^{-11}
Re-178	0,220 h	F	1,000	9,9 10^{-11}	0,800	6,8 10^{-11}	3,1 10^{-11}	1,9 10^{-11}	1,2 10^{-11}	1,0 10^{-11}
		M	1,000	1,3 10^{-10}	0,800	8,5 10^{-11}	3,9 10^{-11}	2,6 10^{-11}	1,7 10^{-11}	1,4 10^{-11}
Re-181	20,0 h	F	1,000	2,0 10^{-9}	0,800	1,4 10^{-9}	6,7 10^{-10}	3,8 10^{-10}	2,3 10^{-10}	1,8 10^{-10}
		M	1,000	2,1 10^{-9}	0,800	1,5 10^{-9}	7,4 10^{-10}	4,6 10^{-10}	3,1 10^{-10}	2,5 10^{-10}
Re-182	2,67 d	F	1,000	6,5 10^{-9}	0,800	4,7 10^{-9}	2,2 10^{-9}	1,3 10^{-9}	8,0 10^{-10}	6,4 10^{-10}
		M	1,00	8,7 10^{-9}	0,80	6,3 10^{-9}	3,4	2,2	1,5 10^{-9}	1,2 10-

			0		0		10^{-9}	10^{-9}		9
Re-182	12,7 h	F	1,000	1,3 10^{-9}	0,800	1,0 10^{-9}	4,9 10^{-10}	2,8 10^{-10}	1,7 10^{-10}	1,4 10^{-10}
		M	1,000	1,4 10^{-9}	0,800	1,1 10^{-9}	5,7 10^{-10}	3,6 10^{-10}	2,5 10^{-10}	2,0 10^{-10}
Re-184	38,0 d	F	1,000	4,1 10^{-9}	0,800	2,9 10^{-9}	1,4 10^{-9}	8,6 10^{-10}	5,4 10^{-10}	4,4 10^{-10}
		M	1,000	9,1 10^{-9}	0,800	6,8 10^{-9}	4,0 10^{-9}	2,8 10^{-9}	2,4 10^{-9}	1,9 10^{-9}
Re-184m	165 d	F	1,000	6,6 10^{-9}	0,800	4,6 10^{-9}	2,0 10^{-9}	1,2 10^{-9}	7,3 10^{-10}	5,9 10^{-10}
		M	1,000	2,9 10^{-8}	0,800	2,2 10^{-8}	1,3 10^{-8}	9,3 10^{-9}	8,1 10^{-9}	6,5 10^{-9}
Re-186	3,78 d	F	1,000	7,3 10^{-9}	0,800	4,7 10^{-9}	2,0 10^{-9}	1,1 10^{-9}	6,6 10^{-10}	5,2 10^{-10}
		M	1,000	8,7 10^{-9}	0,800	5,7 10^{-9}	2,8 10^{-9}	1,8 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
Re-186 m	2,00 10^{5} a	F	1,000	1,2 10^{-9}	0,800	7,0 10^{-9}	2,9 10^{-9}	1,7 10^{-9}	1,0 10^{-9}	8,3 10^{-10}
		M	1,000	5,9 10^{-8}	0,800	4,6 10^{-8}	2,7 10^{-8}	1,8 10^{-8}	1,4 10^{-8}	1,2 10^{-8}
Re-187	5,00 10^{10} a	F	1,000	2,6 10^{-11}	0,800	1,6 10^{-11}	6,8 10^{-12}	3,8 10^{-12}	2,3 10^{-12}	1,8 10^{-12}
		M	1,000	5,7 10^{-11}	0,800	4,1 10^{-11}	2,0 10^{-11}	1,2 10^{-11}	7,5 10^{-12}	6,3 10^{-12}
Re-188	17,0 h	F	1,000	6,5 10^{-9}	0,800	4,4 10^{-9}	1,9 10^{-9}	1,0 10^{-9}	6,1 10^{-10}	4,6 10^{-10}
		M	1,000	6,0 10^{-9}	0,800	4,0 10^{-9}	1,8 10^{-9}	1,0 10^{-9}	6,8 10^{-10}	5,4 10^{10}
Re-188m	0,310 h	F	1,000	1,4 10^{-10}	0,800	9,1 10^{-11}	4,0 10^{-11}	2,1 10^{-11}	1,3 10^{-11}	1,0 10^{-11}
		M	1,000	1,3 10^{-10}	0,800	8,6 10^{-11}	4,0 10^{-11}	2,7 10^{-11}	1,6 10^{-11}	1,3 10^{-11}
Re-189	1,01 d	F	1,000	3,7 10^{-9}	0,800	2,5 10^{-9}	1,1 10^{-9}	5,8 10^{-10}	3,5 10^{-10}	2,7 10^{-10}
		M	1,000	3,9 10^{-9}	0,800	2,6 10^{-9}	1,2 10^{-9}	7,6 10^{-10}	5,5 10^{-10}	4,3 10^{-10}
Osmium										
Os-180	0,366 h	F	0,020	7,1 10^{-11}	0,010	5,3 10^{-11}	2,6 10^{-11}	1,6 10^{-11}	1,0 10^{-11}	8,2 10^{-12}
		M	0,020	1,1 10^{-10}	0,010	7,9 10^{-11}	3,9 10^{-11}	2,5 10^{-11}	1,7 10^{-11}	1,4 10^{-11}
		S	0,020	1,1 10^{-10}	0,010	8,2 10^{-11}	4,1 10^{-11}	2,6 10^{-11}	1,8 10^{-11}	1,5 10^{-11}

Os-181	1,75 h	F	0,020	3,0 10^{-10}	0,010	2,3 10^{-10}	1,1 10^{-10}	7,0 10^{-11}	4,1 10^{-11}	3,3 10^{-11}
		M	0,020	4,5 10^{-10}	0,010	3,4 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	7,6 10^{-11}	6,2 10^{-11}
		S	0,020	4,7 10^{-10}	0,010	3,6 10^{-10}	1,8 10^{-10}	1,2 10^{-10}	8,1 10^{-11}	6,5 10^{-11}
Os-182	22,0 h	F	0,020	1,6 10^{-9}	0,010	1,2 10^{-9}	6,0 10^{-10}	3,7 10^{-10}	2,1 10^{-10}	1,7 10^{-10}
		M	0,020	2,5 10^{-9}	0,010	1,9 10^{-9}	1,0 10^{-9}	6,6 10^{-10}	4,5 10^{-10}	3,6 10^{-10}
		S	0,020	2,6 10^{-9}	0,010	2,0 10^{-9}	1,0 10^{-9}	6,9 10^{-10}	4,8 10^{-10}	3,8 10^{-10}
Os-185	94,0 d	F	0,020	7,2 10^{-9}	0,010	5,8 10^{-9}	3,1 10^{-9}	1,9 10^{-9}	1,2 10^{-9}	1,1 10^{-9}
		M	0,020	6,6 10^{-9}	0,010	5,4 10^{-9}	2,9 10^{-9}	2,0 10^{-9}	1,5 10^{-9}	1,3 10^{-9}
		S	0,020	7,0 10^{-9}	0,010	5,8 10^{-9}	3,6 10^{-9}	2,4 10^{-9}	1,9 10^{-9}	1,6 10^{-9}
Os-189m	6,00 h	F	0,020	3,8 10^{-11}	0,010	2,8 10^{-11}	1,2 10^{-11}	7,0 10^{-12}	3,5 10^{-12}	2,5 10^{-12}
		M	0,020	6,5 10^{-11}	0,010	4,1 10^{-11}	1,8 10^{-11}	1,1 10^{-11}	6,0 10^{-12}	5,0 10^{-12}
		S	0,020	6,8 10^{-11}	0,010	4,3 10^{-11}	1,9 10^{-11}	1,2 10^{-11}	6,3 10^{-12}	5,3 10^{-12}
Os-191	15,4 d	F	0,020	2,8 10^{-9}	0,010	1,9 10^{-9}	8,5 10^{-10}	5,3 10^{-10}	3,0 10^{-10}	2,5 10^{-10}
		M	0,020	8,0 10^{-9}	0,010	5,8 10^{-9}	3,4 10^{-9}	2,4 10^{-9}	2,0 10^{-9}	1,7 10^{-9}
		S	0,020	9,0 10^{-9}	0,010	6,5 10^{-9}	3,9 10^{-9}	2,7 10^{-9}	2,3 10^{-9}	1,9 10^{-9}
Os-191m	13,0 h	F	0,020	3,0 10^{-10}	0,010	2,0 10^{-10}	8,8 10^{-11}	5,4 10^{-11}	2,9 10^{-11}	2,4 10^{-11}
		M	0,020	7,8 10^{-10}	0,010	5,4 10^{-10}	3,1 10^{-10}	2,1 10^{-10}	1,7 10^{-10}	1,4 10^{-10}
		S	0,020	8,5 10^{-10}	0,010	6,0 10^{-10}	3,4 10^{-10}	2,4 10^{-10}	2,0 10^{-10}	1,6 10^{-10}
Os-193	1,25 d	F	0,020	1,9 10^{-9}	0,010	1,2 10^{-9}	5,2 10^{-10}	3,2 10^{-10}	1,8 10^{-10}	1,6 10^{-10}
		M	0,020	3,8 10^{-9}	0,010	2,6 10^{-9}	1,3 10^{-9}	8,4 10^{-10}	5,9 10^{-10}	4,8 10^{-10}
		S	0,020	4,0 10^{-9}	0,010	2,7 10^{-9}	1,3 10^{-9}	9,0 10^{-10}	6,4 10^{-10}	5,2 10^{-10}
Os-194	6,00 a	F	0,020	8,7 10^{-8}	0,010	6,8 10^{-8}	3,4 10^{-8}	2,1 10^{-8}	1,3 10^{-8}	1,1 10^{-8}
		M	0,02	9,9 10^{-8}	0,01	8,3 10^{-8}	4,8	3,1	2,4 10^{-8}	2,1 10^{-}

			0		0		10^{-8}	10^{-8}		8
		S	0,020	$2,6\ 10^{-7}$	0,010	$2,4\ 10^{-7}$	$1,6\ 10^{-7}$	$1,1\ 10^{-7}$	$8,8\ 10^{-8}$	$8,5\ 10^{-8}$
Iridium										
Ir-182	0,250 h	F	0,020	$1,4\ 10^{-10}$	0,010	$9,8\ 10^{-11}$	$4,5\ 10^{-11}$	$2,8\ 10^{-11}$	$1,7\ 10^{-11}$	$1,4\ 10^{-11}$
		M	0,020	$2,1\ 10^{-10}$	0,010	$1,4\ 10^{-10}$	$6,7\ 10^{-11}$	$4,3\ 10^{-11}$	$2,8\ 10^{-11}$	$2,3\ 10^{-11}$
		S	0,020	$2,2\ 10^{-10}$	0,010	$1,5\ 10^{-10}$	$6,9\ 10^{-11}$	$4,4\ 10^{-11}$	$2,9\ 10^{-11}$	$2,4\ 10^{-11}$
Ir-184	3,02 h	F	0,020	$5,7\ 10^{-10}$	0,010	$4,4\ 10^{-10}$	$2,1\ 10^{-10}$	$1,3\ 10^{-10}$	$7,6\ 10^{-11}$	$6,2\ 10^{-11}$
		M	0,020	$8,6\ 10^{-10}$	0,010	$6,4\ 10^{-10}$	$3,2\ 10^{-10}$	$2,1\ 10^{-10}$	$1,4\ 10^{-10}$	$1,1\ 10^{-10}$
		S	0,020	$8,9\ 10^{-10}$	0,010	$6,6\ 10^{-10}$	$3,4\ 10^{-10}$	$2,2\ 10^{-10}$	$1,4\ 10^{-10}$	$1,2\ 10^{-10}$
Ir-185	14,0 h	F	0,020	$8,0\ 10^{-10}$	0,010	$6,1\ 10^{-10}$	$2,9\ 10^{-10}$	$1,8\ 10^{-10}$	$1,0\ 10^{-10}$	$8,2\ 10^{-11}$
		M	0,020	$1,3\ 10^{-9}$	0,010	$9,7\ 10^{-9}$	$4,9\ 10^{-10}$	$3,2\ 10^{-10}$	$2,2\ 10^{-10}$	$1,8\ 10^{-10}$
		S	0,020	$1,4\ 10^{-9}$	0,010	$1,0\ 10^{-9}$	$5,2\ 10^{-10}$	$3,4\ 10^{-10}$	$2,3\ 10^{-10}$	$1,9\ 10^{-10}$
Ir-186	15,8 h	F	0,020	$1,5\ 10^{-9}$	0,010	$1,2\ 10^{-9}$	$5,9\ 10^{-10}$	$3,6\ 10^{-10}$	$2,1\ 10^{-10}$	$1,7\ 10^{-10}$
		M	0,020	$2,2\ 10^{-9}$	0,010	$1,7\ 10^{-9}$	$8,8\ 10^{-10}$	$5,8\ 10^{-10}$	$3,8\ 10^{-10}$	$3,1\ 10^{-10}$
		S	0,020	$2,3\ 10^{-9}$	0,010	$1,8\ 10^{-9}$	$9,2\ 10^{-10}$	$6,0\ 10^{-10}$	$4,0\ 10^{-10}$	$3,2\ 10^{-10}$
Ir-186	1,75 h	F	0,020	$2,1\ 10^{-10}$	0,010	$1,6\ 10^{-10}$	$7,7\ 10^{-11}$	$4,8\ 10^{-11}$	$2,8\ 10^{-11}$	$2,3\ 10^{-11}$
		M	0,020	$3,3\ 10^{-10}$	0,010	$2,4\ 10^{-10}$	$1,2\ 10^{-10}$	$7,7\ 10^{-11}$	$5,1\ 10^{-11}$	$4,2\ 10^{-11}$
		S	0,020	$3,4\ 10^{-10}$	0,010	$2,5\ 10^{-10}$	$1,2\ 10^{-10}$	$8,1\ 10^{-11}$	$5,4\ 10^{-11}$	$4,4\ 10^{-11}$
Ir-187	10,5 h	F	0,020	$3,6\ 10^{-10}$	0,010	$2,8\ 10^{-10}$	$1,4\ 10^{-10}$	$8,2\ 10^{-11}$	$4,6\ 10^{-11}$	$3,7\ 10^{-11}$
		M	0,020	$5,8\ 10^{-10}$	0,010	$4,3\ 10^{-10}$	$2,2\ 10^{-10}$	$1,4\ 10^{-10}$	$9,2\ 10^{-11}$	$7,4\ 10^{-11}$
		S	0,020	$6,0\ 10^{-10}$	0,010	$4,5\ 10^{-10}$	$2,3\ 10^{-10}$	$1,5\ 10^{-10}$	$9,7\ 10^{-11}$	$7,9\ 10^{-11}$
Ir-188	1,73 d	F	0,020	$2,0\ 10^{-9}$	0,010	$1,6\ 10^{-9}$	$8,0\ 10^{-10}$	$5,0\ 10^{-10}$	$2,9\ 10^{-10}$	$2,4\ 10^{-10}$
		M	0,020	$2,7\ 10^{-9}$	0,010	$2,1\ 10^{-9}$	$1,1\ 10^{-9}$	$7,5\ 10^{-10}$	$5,0\ 10^{-10}$	$4,0\ 10^{-10}$

		S	0,020	2,8 10^{-9}	0,010	2,2 10^{-9}	1,2 10^{-9}	7,8 10^{-10}	5,2 10^{-10}	4,2 10^{-10}
Ir-189	13,3 d	F	0,020	1,2 10^{-9}	0,010	8,2 10^{-10}	3,8 10^{-10}	2,4 10^{-10}	1,3 10^{-10}	1,1 10^{-10}
		M	0,020	2,7 10^{-9}	0,010	1,9 10^{-9}	1,1 10^{-9}	7,7 10^{-10}	6,4 10^{-10}	5,2 10^{-10}
		S	0,020	3,0 10^{-9}	0,010	2,2 10^{-9}	1,3 10^{-9}	8,7 10^{-10}	7,3 10^{-10}	6,0 10^{-10}
Ir-190	12,1 d	F	0,020	6,2 10^{-9}	0,010	4,7 10^{-9}	2,4 10^{-9}	1,5 10^{-9}	9,1 10^{-10}	7,7 10^{-10}
		M	0,020	1,1 10^{-8}	0,010	8,6 10^{-9}	4,4 10^{-9}	3,1 10^{-9}	2,7 10^{-9}	2,1 10^{-9}
		S	0,020	1,1 10^{-8}	0,010	9,4 10^{-9}	4,8 10^{-9}	3,5 10^{-9}	3,0 10^{-9}	2,4 10^{-9}
Ir-190m	3,10 h	F	0,020	4,2 10^{-10}	0,010	3,4 10^{-10}	1,7 10^{-10}	1,0 10^{-10}	6,0 10^{-11}	4,9 10^{-11}
		M	0,020	6,0 10^{-10}	0,010	4,7 10^{-10}	2,4 10^{-10}	1,5 10^{-10}	9,9 10^{-11}	7,9 10^{-11}
		S	0,020	6,2 10^{-10}	0,010	4,8 10^{-10}	2,5 10^{-10}	1,6 10^{-10}	1,0 10^{-10}	8,3 10^{-11}
Ir-190m	1,20 h	F	0,020	3,2 10^{-11}	0,010	2,4 10^{-11}	1,2 10^{-11}	7,2 10^{-12}	4,3 10^{-12}	3,6 10^{-12}
		M	0,020	5,7 10^{-11}	0,010	4,2 10^{-11}	2,0 10^{-11}	1,4 10^{-11}	1,2 10^{-11}	9,3 10^{-12}
		S	0,020	5,5 10^{-11}	0,010	4,5 10^{-11}	2,2 10^{-11}	1,6 10^{-11}	1,3 10^{-11}	1,0 10^{-11}
Ir-192	74,0 d	F	0,020	1,5 10^{-8}	0,010	1,1 10^{-8}	5,7 10^{-9}	3,3 10^{-9}	2,1 10^{-9}	1,8 10^{-9}
		M	0,020	2,3 10^{-8}	0,010	1,8 10^{-8}	1,1 10^{-8}	7,6 10^{-9}	6,4 10^{-9}	5,2 10^{-9}
		S	0,020	2,8 10^{-8}	0,010	2,2 10^{-8}	1,3 10^{-8}	9,5 10^{-9}	8,1 10^{-9}	6,6 10^{-9}
Ir-192m	2,41 10^{2} a	F	0,020	2,7 10^{-8}	0,010	2,3 10^{-8}	1,4 10^{-8}	8,2 10^{-9}	5,4 10^{-9}	4,8 10^{-9}
		M	0,020	2,3 10^{-8}	0,010	2,1 10^{-8}	1,3 10^{-8}	8,4 10^{-9}	6,6 10^{-9}	5,8 10^{-9}
		S	0,020	9,2 10^{-8}	0,010	9,1 10^{-8}	6,5 10^{-8}	4,5 10^{-8}	4,0 10^{-8}	3,9 10^{-8}
Ir-193m	11,9 d	F	0,020	1,2 10^{-9}	0,010	8,4 10^{-10}	3,7 10^{-10}	2,2 10^{-10}	1,2 10^{-10}	1,0 10^{-10}
		M	0,020	4,8 10^{-9}	0,010	3,5 10^{-9}	2,1 10^{-9}	1,5 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
		S	0,020	5,4 10^{-9}	0,010	4,0 10^{-9}	2,4 10^{-9}	1,8 10^{-9}	1,6 10^{-9}	1,3 10^{-9}
Ir-194	19,1 h	F	0,02	2,9 10^{-9}	0,01	1,9 10^{-9}	8,1	4,9	2,5 10^{-10}	2,1 10^{-}

			0		0		10^{-10}	10^{-10}		10
		M	0,020	5,3 10^{-9}	0,010	3,5 10^{-9}	1,6 10^{-9}	1,0 10^{-9}	6,3 10^{-10}	5,2 10^{-10}
		S	0,020	5,5 10^{-9}	0,010	3,7 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	6,7 10^{-10}	5,6 10^{-10}
Ir-194m	171 d	F	0,020	3,4 10^{-8}	0,010	2,7 10^{-8}	1,4 10^{-8}	9,5 10^{-9}	6,2 10^{-9}	5,4 10^{-9}
		M	0,020	3,9 10^{-8}	0,010	3,2 10^{-8}	1,9 10^{-8}	1,3 10^{-8}	1,1 10^{-8}	9,0 10^{-9}
		S	0,020	5,0 10^{-8}	0,010	4,2 10^{-8}	2,6 10^{-8}	1,8 10^{-8}	1,5 10^{-8}	1,3 10^{-8}
Ir-195	2,50 h	F	0,020	2,9 10^{-10}	0,010	1,9 10^{-10}	8,1 10^{-11}	5,1 10^{-11}	2,9 10^{-11}	2,4 10^{-11}
		M	0,020	5,4 10^{-10}	0,010	3,6 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	8,1 10^{-11}	6,7 10^{-11}
		S	0,020	5,7 10^{-10}	0,010	3,8 10^{-10}	1,8 10^{-10}	1,2 10^{-10}	8,7 10^{-11}	7,1 10^{-11}
Ir-195m	3,80 h	F	0,020	6,9 10^{-10}	0,010	4,8 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	7,2 10^{-11}	6,0 10^{-11}
		M	0,020	1,2 10^{-9}	0,010	8,6 10^{-10}	4,2 10^{-10}	2,7 10^{-10}	1,9 10^{-10}	1,6 10^{-10}
		S	0,020	1,3 10^{-9}	0,010	9,0 10^{-10}	4,4 10^{-10}	2,9 10^{-10}	2,0 10^{-10}	1,7 10^{-10}

Platinum

Pt-186	2,00 h	F	0,020	3,0 10^{-10}	0,010	2,4 10^{-10}	1,2 10^{-10}	7,2 10^{-11}	4,1 10^{-11}	3,3 10^{-11}
Pt-188	10,2 d	F	0,020	3,6 10^{-9}	0,010	2,7 10^{-9}	1,3 10^{-9}	8,4 10^{-10}	5,0 10^{-10}	4,2 10^{-10}
Pt-189	10,9 h	F	0,020	3,8 10^{-10}	0,010	2,9 10^{-10}	1,4 10^{-10}	8,4 10^{-11}	4,7 10^{-11}	3,8 10^{-11}
Pt-191	2,80 d	F	0,020	1,1 10^{-9}	0,010	7,9 10^{-10}	3,7 10^{-10}	2,3 10^{-10}	1,3 10^{-10}	1,1 10^{-10}
Pt-193	50,0 a	F	0,020	2,2 10^{-10}	0,010	1,6 10^{-10}	7,2 10^{-11}	4,3 10^{-11}	2,5 10^{-11}	2,1 10^{-11}
Pt-193m	4,33 d	F	0,020	1,6 10^{-9}	0,010	1,0 10^{-9}	4,5 10^{-10}	2,7 10^{-10}	1,4 10^{-10}	1,2 10^{-10}
Pt-195m	4,02 d	F	0,020	2,2 10^{-9}	0,010	1,5 10^{-9}	6,4 10^{-10}	3,9 10^{-10}	2,1 10^{-10}	1,8 10^{-10}
Pt-197	18,3 h	F	0,020	1,1 10^{-9}	0,010	7,3 10^{-10}	3,1 10^{-10}	1,9 10^{-10}	1,0 10^{-10}	8,5 10^{-11}
Pt-197m	1,57 h	F	0,020	2,8 10^{-10}	0,010	1,8 10^{-10}	7,9 10^{-11}	4,9 10^{-11}	2,8 10^{-11}	2,4 10^{-11}
Pt-199	0,513 h	F	0,020	1,3 10^{-10}	0,010	8,3 10^{-11}	3,6 10^{-11}	2,3 10^{-11}	1,4 10^{-11}	1,2 10^{-11}

Pt-200	12,5 h	F	0,020	2,6 10^{-9}	0,010	1,7 10^{-9}	7,2 10^{-10}	5,1 10^{-10}	2,6 10^{-10}	2,2 10^{-10}
Gold										
Au-193	17,6 h	F	0,200	3,7 10^{-10}	0,100	2,8 10^{-10}	1,3 10^{-10}	7,9 10^{-11}	4,3 10^{-11}	3,6 10^{-11}
		M	0,200	7,5 10^{-10}	0,100	5,6 10^{-10}	2,8 10^{-10}	1,9 10^{-10}	1,4 10^{-10}	1,1 10^{-10}
		S	0,200	7,9 10^{-10}	0,100	5,9 10^{-10}	3,0 10^{-10}	2,0 10^{-10}	1,5 10^{-10}	1,2 10^{-10}
Au-194	1,65 d	F	0,200	1,2 10^{-9}	0,100	9,6 10^{-10}	4,9 10^{-10}	3,0 10^{-10}	1,8 10^{-10}	1,4 10^{-10}
		M	0,200	1,7 10^{-9}	0,100	1,4 10^{-9}	7,1 10^{-10}	4,6 10^{-10}	2,9 10^{-10}	2,3 10^{-10}
		S	0,200	1,7 10^{-9}	0,100	1,4 10^{-9}	7,3 10^{-10}	4,7 10^{-10}	3,0 10^{-10}	2,4 10^{-10}
Au-195	183 d	F	0,200	7,2 10^{-10}	0,100	5,3 10^{-10}	2,5 10^{-10}	1,5 10^{-10}	8,1 10^{-11}	6,6 10^{-11}
		M	0,200	5,2 10^{-9}	0,100	4,1 10^{-9}	2,4 10^{-9}	1,6 10^{-9}	1,4 10^{-9}	1,1 10^{-9}
		S	0,200	8,1 10^{-9}	0,100	6,6 10^{-9}	3,9 10^{-9}	2,6 10^{-9}	2,1 10^{-9}	1,7 10^{-9}
Au-198	2,69 d	F	0,200	2,4 10^{-9}	0,100	1,7 10^{-9}	7,6 10^{-10}	4,7 10^{-10}	2,5 10^{-10}	2,1 10^{-10}
		M	0,200	5,0 10^{-9}	0,100	4,1 10^{-9}	1,9 10^{-9}	1,3 10^{-9}	9,7 10^{-10}	7,8 10^{-10}
		S	0,200	5,4 10^{-9}	0,100	4,4 10^{-9}	2,0 10^{-9}	1,4 10^{-9}	1,1 10^{-9}	8,6 10^{-10}
Au-198m	2,30 d	F	0,200	3,3 10^{-9}	0,100	2,4 10^{-9}	1,1 10^{-9}	6,9 10^{-10}	3,7 10^{-10}	3,2 10^{-10}
		M	0,200	8,7 10^{-9}	0,100	6,5 10^{-9}	3,6 10^{-9}	2,6 10^{-9}	2,2 10^{-9}	1,8 10^{-9}
		S	0,200	9,5 10^{-9}	0,100	7,1 10^{-9}	4,0 10^{-9}	2,9 10^{-9}	2,5 10^{-9}	2,0 10^{-9}
Au-199	3,14 d	F	0,200	1,1 10^{-9}	0,100	7,9 10^{-10}	3,5 10^{-10}	2,2 10^{-10}	1,1 10^{-10}	9,8 10^{-11}
		M	0,200	3,4 10^{-9}	0,100	2,5 10^{-9}	1,4 10^{-9}	1,0 10^{-9}	9,0 10^{-10}	7,1 10^{-10}
		S	0,200	3,8 10^{-9}	0,100	2,8 10^{-9}	1,6 10^{-9}	1,2 10^{-9}	1,0 10^{-9}	7,9 10^{-10}
Au-200	0,807 h	F	0,200	1,9 10^{-10}	0,100	1,2 10^{-10}	5,2 10^{-11}	3,2 10^{-11}	1,9 10^{-11}	1,6 10^{-11}
		M	0,200	3,2 10^{-10}	0,100	2,1 10^{-10}	9,3 10^{-11}	6,0 10^{-11}	4,0 10^{-11}	3,3 10^{-11}
		S	0,200	3,4 10^{-10}	0,100	2,1 10^{-10}	9,8 10^{-11}	6,3 10^{-11}	4,2 10^{-11}	3,5 10^{-11}

Au-200m	18,7 h	F	0,200	$2,7\ 10^{-9}$	0,100	$2,1\ 10^{-9}$	$1,0\ 10^{-9}$	$6,4\ 10^{-10}$	$3,6\ 10^{-10}$	$2,9\ 10^{-10}$
		M	0,200	$4,8\ 10^{-9}$	0,100	$3,7\ 10^{-9}$	$1,9\ 10^{-9}$	$1,2\ 10^{-9}$	$8,4\ 10^{-10}$	$6,8\ 10^{-10}$
		S	0,200	$5,1\ 10^{-9}$	0,100	$3,9\ 10^{-9}$	$2,0\ 10^{-9}$	$1,3\ 10^{-9}$	$8,9\ 10^{-10}$	$7,2\ 10^{-10}$
Au-201	0,440 h	F	0,200	$9,0\ 10^{-11}$	0,100	$5,7\ 10^{-11}$	$2,5\ 10^{-11}$	$1,6\ 10^{-11}$	$1,0\ 10^{-11}$	$8,7\ 10^{-12}$
		M	0,200	$1,5\ 10^{-10}$	0,100	$9,6\ 10^{-11}$	$4,3\ 10^{-11}$	$2,9\ 10^{-11}$	$2,0\ 10^{-11}$	$1,7\ 10^{-11}$
		S	0,200	$1,5\ 10^{-10}$	0,100	$1,0\ 10^{-10}$	$4,5\ 10^{-11}$	$3,0\ 10^{-11}$	$2,1\ 10^{-11}$	$1,7\ 10^{-11}$
Mercury										
Hg-193 (organic)	3,50 h	F	0,800	$2,2\ 10^{-10}$	0,400	$1,8\ 10^{-10}$	$8,2\ 10^{-11}$	$5,0\ 10^{-11}$	$2,9\ 10^{-11}$	$2,4\ 10^{-11}$
Hg-193 (inorganic)	3,50 h	F	0,040	$2,7\ 10^{-10}$	0,020	$2,0\ 10^{-10}$	$8,9\ 10^{-11}$	$5,5\ 10^{-11}$	$3,1\ 10^{-11}$	$2,6\ 10^{-11}$
		M	0,040	$5,3\ 10^{-10}$	0,020	$3,8\ 10^{-10}$	$1,9\ 10^{-10}$	$1,3\ 10^{-10}$	$9,2\ 10^{-11}$	$7,5\ 10^{-11}$
Hg-193m (organic)	11,1 h	F	0,800	$8,4\ 10^{-10}$	0,400	$7,6\ 10^{-10}$	$3,7\ 10^{-10}$	$2,2\ 10^{-10}$	$1,3\ 10^{-10}$	$1,0\ 10^{-10}$
Hg-193m (inorganic)	11,1 h	F	0,040	$1,1\ 10^{-9}$	0,020	$8,5\ 10^{-10}$	$4,1\ 10^{-10}$	$2,5\ 10^{-10}$	$1,4\ 10^{-10}$	$1,1\ 10^{-10}$
		M	0,040	$1,9\ 10^{-9}$	0,020	$1,4\ 10^{-9}$	$7,2\ 10^{-10}$	$4,7\ 10^{-10}$	$3,2\ 10^{-10}$	$2,6\ 10^{-10}$
Hg-194 (organic)	$2,60\ 10^{2}$ a	F	0,800	$4,9\ 10^{-8}$	0,400	$3,7\ 10^{-8}$	$2,4\ 10^{-8}$	$1,9\ 10^{-8}$	$1,5\ 10^{-8}$	$1,4\ 10^{-8}$
Hg-194 (inorganic)	$2,60\ 10^{2}$ a	F	0,040	$3,2\ 10^{-8}$	0,020	$2,9\ 10^{-8}$	$2,0\ 10^{-8}$	$1,6\ 10^{-8}$	$1,4\ 10^{-8}$	$1,3\ 10^{-8}$
		M	0,040	$2,1\ 10^{-8}$	0,020	$1,9\ 10^{-8}$	$1,3\ 10^{-8}$	$1,0\ 10^{-8}$	$8,9\ 10^{-9}$	$8,3\ 10^{-9}$
Hg-195 (organic)	9,90 h	F	0,800	$2,0\ 10^{-10}$	0,400	$1,8\ 10^{-10}$	$8,5\ 10^{-11}$	$5,1\ 10^{-11}$	$2,8\ 10^{-11}$	$2,3\ 10^{-11}$
Hg-195 (inorganic)	9,90 h	F	0,040	$2,7\ 10^{-10}$	0,020	$2,0\ 10^{-10}$	$9,5\ 10^{-11}$	$5,7\ 10^{-11}$	$3,1\ 10^{-11}$	$2,5\ 10^{-11}$
		M	0,040	$5,3\ 10^{-10}$	0,020	$3,9\ 10^{-10}$	$2,0\ 10^{-10}$	$1,3\ 10^{-10}$	$9,0\ 10^{-11}$	$7,3\ 10^{-11}$
Hg-195m (organic)	1,73 d	F	0,800	$1,1\ 10^{-9}$	0,400	$9,7\ 10^{-10}$	$4,4\ 10^{-10}$	$2,7\ 10^{-10}$	$1,4\ 10^{-10}$	$1,2\ 10^{-10}$

Hg-195m	1,73 d	F	0,040	1,6 10^{-9}	0,020	1,1 10^{-9}	5,1 10^{-10}	3,1 10^{-10}	1,7 10^{-10}	1,4 10^{-10}
(inorganic)		M	0,040	3,7 10^{-9}	0,020	2,6 10^{-9}	1,4 10^{-9}	8,5 10^{-10}	6,7 10^{-10}	5,3 10^{-10}
Hg-197 (organic)	2,67 d	F	0,800	4,7 10^{-10}	0,400	4,0 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	5,8 10^{-10}	4,7 10^{-11}
Hg-197	2,67 d	F	0,040	6,8 10^{-10}	0,020	4,7 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	6,8 10^{-11}	5,6 10^{-11}
(inorganic)		M	0,040	1,7 10^{-9}	0,020	1,2 10^{-9}	6,6 10^{-10}	4,6 10^{-10}	3,8 10^{-10}	3,0 10^{-10}
Hg-197m (organic)	23,8 h	F	0,800	9,3 10^{-10}	0,400	7,8 10^{-10}	3,4 10^{-10}	2,1 10^{-10}	1,1 10^{-10}	9,6 10^{-11}
Hg-197m	23,8 h	F	0,040	1,4 10^{-9}	0,020	9,3 10^{-10}	4,0 10^{-10}	2,5 10^{-10}	1,3 10^{-10}	1,1 10^{-10}
(inorganic)		M	0,040	3,5 10^{-9}	0,020	2,5 10^{-9}	1,1 10^{-9}	8,2 10^{-10}	6,7 10^{-10}	5,3 10^{-10}
Hg-199m (organic)	0,710 h	F	0,800	1,4 10^{-10}	0,400	9,6 10^{-11}	4,2 10^{-11}	2,7 10^{-11}	1,7 10^{-11}	1,5 10^{-11}
Hg-199m	0,710 h	F	0,040	1,4 10^{-10}	0,020	9,6 10^{-11}	4,2 10^{-11}	2,7 10^{-11}	1,7 10^{-11}	1,5 10^{-11}
(inorganic)		M	0,040	2,5 10^{-10}	0,020	1,7 10^{-10}	7,9 10^{-11}	5,4 10^{-11}	3,8 10^{-11}	3,2 10^{-11}
Hg-203 (organic)	46,6 d	F	0,800	5,7 10^{-9}	0,400	3,7 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	6,6 10^{-10}	5,6 10^{-10}
Hg-203	46,6 d	F	0,040	4,2 10^{-9}	0,020	2,9 10^{-9}	1,4 10^{-9}	9,0 10^{-10}	5,5 10^{-10}	4,6 10^{-10}
(inorganic)		M	0,040	1,0 10^{-8}	0,020	7,9 10^{-9}	4,7 10^{-9}	3,4 10^{-9}	3,0 10^{-9}	2,4 10^{-9}
Thallium										
Tl-194	0,550 h	F	1,000	3,6 10^{-11}	1,000	3,0 10^{-11}	1,5 10^{-11}	9,2 10^{-12}	5,5 10^{-12}	4,4 10^{-12}
Tl-194m	0,546 h	F	1,000	1,7 10^{-10}	1,000	1,2 10^{-10}	6,1 10^{-11}	3,8 10^{-11}	2,3 10^{-11}	1,9 10^{-11}
Tl-195	1,16 h	F	1,000	1,3 10^{-10}	1,000	1,0 10^{-10}	5,3 10^{-11}	3,2 10^{-11}	1,9 10^{-11}	1,5 10^{-11}
Tl-197	2,84 h	F	1,000	1,3 10^{-10}	1,000	9,7 10^{-11}	4,7 10^{-11}	2,9 10^{-11}	1,7 10^{-11}	1,4 10^{-11}
Tl-198	5,30 h	F	1,000	4,7 10^{-10}	1,000	4,0 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	7,5 10^{-11}	6,0 10^{-11}
Tl-198m	1,87 h	F	1,00	3,2 10^{-10}	1,00	2,5 10^{-10}	1,2	7,5	4,5 10^{-11}	3,7 10^{-}

			0		0		10^{-10}	10^{-11}		11
Tl-199	7,42 h	F	1,000	$1,7\ 10^{-10}$	1,000	$1,3\ 10^{-10}$	$6,4\ 10^{-11}$	$3,9\ 10^{-11}$	$2,3\ 10^{-11}$	$1,9\ 10^{-11}$
Tl-200	1,09 d	F	1,000	$1,0\ 10^{-9}$	1,000	$8,7\ 10^{-10}$	$4,6\ 10^{-10}$	$2,8\ 10^{-10}$	$1,6\ 10^{-10}$	$1,3\ 10^{-10}$
Tl-201	3,04 d	F	1,000	$4,5\ 10^{-10}$	1,000	$3,3\ 10^{-10}$	$1,5\ 10^{-10}$	$9,4\ 10^{-11}$	$5,4\ 10^{-11}$	$4,4\ 10^{-11}$
Tl-202	12,2 d	F	1,000	$1,5\ 10^{-9}$	1,000	$1,2\ 10^{-9}$	$5,9\ 10^{-10}$	$3,8\ 10^{-10}$	$2,3\ 10^{-10}$	$1,9\ 10^{-10}$
Tl-204	3,78 a	F	1,000	$5,0\ 10^{-9}$	1,000	$3,3\ 10^{-9}$	$1,5\ 10^{-9}$	$8,8\ 10^{-10}$	$4,7\ 10^{-10}$	$3,9\ 10^{-10}$
Lead[(a)]										
Pb-195m	0,263 h	F	0,600	$1,3\ 10^{-10}$	0,200	$1,0\ 10^{-10}$	$4,9\ 10^{-11}$	$3,1\ 10^{-11}$	$1,9\ 10^{-11}$	$1,6\ 10^{-11}$
		M	0,200	$2,0\ 10^{-10}$	0,100	$1,5\ 10^{-10}$	$7,1\ 10^{-11}$	$4,6\ 10^{-11}$	$3,1\ 10^{-11}$	$2,5\ 10^{-11}$
		S	0,020	$2,1\ 10^{-10}$	0,010	$1,5\ 10^{-10}$	$7,4\ 10^{-11}$	$4,8\ 10^{-11}$	$3,2\ 10^{-11}$	$2,7\ 10^{-11}$
Pb-198	2,40 h	F	0,600	$3,4\ 10^{-10}$	0,200	$2,9\ 10^{-10}$	$1,5\ 10^{-10}$	$8,9\ 10^{-11}$	$5,2\ 10^{-11}$	$4,3\ 10^{-11}$
		M	0,200	$5,0\ 10^{-10}$	0,100	$4,0\ 10^{-10}$	$2,1\ 10^{-10}$	$1,3\ 10^{-10}$	$8,3\ 10^{-11}$	$6,6\ 10^{-11}$
		S	0,020	$5,4\ 10^{-10}$	0,010	$4,2\ 10^{-10}$	$2,2\ 10^{-10}$	$1,4\ 10^{-10}$	$8,7\ 10^{-11}$	$7,0\ 10^{-11}$
Pb-199	1,50 h	F	0,600	$1,9\ 10^{-10}$	0,200	$1,6\ 10^{-10}$	$8,2\ 10^{-11}$	$4,9\ 10^{-11}$	$2,9\ 10^{-11}$	$2,3\ 10^{-11}$
		M	0,200	$2,8\ 10^{-10}$	0,100	$2,2\ 10^{-10}$	$1,1\ 10^{-10}$	$7,1\ 10^{-11}$	$4,5\ 10^{-11}$	$3,6\ 10^{-11}$
		S	0,020	$2,9\ 10^{-10}$	0,010	$2,3\ 10^{-10}$	$1,2\ 10^{-10}$	$7,4\ 10^{-11}$	$4,7\ 10^{-11}$	$3,7\ 10^{-11}$
Pb-200	21,5 h	F	0,600	$1,1\ 10^{-9}$	0,200	$9,3\ 10^{-10}$	$4,6\ 10^{-10}$	$2,8\ 10^{-10}$	$1,6\ 10^{-10}$	$1,4\ 10^{-10}$
		M	0,200	$2,2\ 10^{-9}$	0,100	$1,7\ 10^{-9}$	$8,6\ 10^{-10}$	$5,7\ 10^{-10}$	$4,1\ 10^{-10}$	$3,3\ 10^{-10}$
		S	0,020	$2,4\ 10^{-9}$	0,010	$1,8\ 10^{-9}$	$9,2\ 10^{-10}$	$6,2\ 10^{-10}$	$4,4\ 10^{-10}$	$3,5\ 10^{-10}$
Pb-201	9,40 h	F	0,600	$4,8\ 10^{-10}$	0,200	$4,1\ 10^{-10}$	$2,0\ 10^{-10}$	$1,2\ 10^{-10}$	$7,1\ 10^{-11}$	$6,0\ 10^{-11}$
		M	0,200	$8,0\ 10^{-10}$	0,100	$6,4\ 10^{-10}$	$3,3\ 10^{-10}$	$2,1\ 10^{-10}$	$1,4\ 10^{-10}$	$1,1\ 10^{-10}$
		S	0,020	$8,8\ 10^{-10}$	0,010	$6,7\ 10^{-10}$	$3,5\ 10^{-10}$	$2,2\ 10^{-10}$	$1,5\ 10^{-10}$	$1,2\ 10^{-10}$
Pb-202	$3,00\ 10^{5}$ a	F	0,600	$1,9\ 10^{-8}$	0,200	$1,3\ 10^{-8}$	$8,9\ 10^{-9}$	$1,3\ 10^{-8}$	$1,8\ 10^{-8}$	$1,1\ 10^{-8}$

		M	0,200	1,2 10^{-8}	0,100	8,9 10^{-9}	6,2 10^{-9}	6,7 10^{-9}	8,7 10^{-9}	6,3 10^{-9}
		S	0,020	2,8 10^{-8}	0,010	2,8 10^{-8}	2,0 10^{-8}	1,4 10^{-8}	1,3 10^{-8}	1,2 10^{-8}
Pb-202m	3,62 h	F	0,600	4,7 10^{-10}	0,200	4,0 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	7,5 10^{-11}	6,2 10^{-11}
		M	0,200	6,9 10^{-10}	0,100	5,6 10^{-10}	2,9 10^{-10}	1,9 10^{-10}	1,2 10^{-10}	9,5 10^{-11}
		S	0,020	7,3 10^{-10}	0,010	5,8 10^{-10}	3,0 10^{-10}	1,9 10^{-10}	1,3 10^{-10}	1,0 10^{-10}
Pb-203	2,17 d	F	0,600	7,2 10^{-10}	0,200	5,8 10^{-10}	2,8 10^{-10}	1,7 10^{-10}	9,9 10^{-11}	8,5 10^{-11}
		M	0,200	1,3 10^{-9}	0,100	1,0 10^{-9}	5,4 10^{-10}	3,6 10^{-10}	2,5 10^{-10}	2,0 10^{-10}
		S	0,020	1,5 10^{-9}	0,010	1,1 10^{-9}	5,8 10^{-10}	3,8 10^{-10}	2,8 10^{-10}	2,2 10^{-10}
Pb-205	1,43 10[illegible] a	F	0,600	1,1 10^{-9}	0,200	6,9 10^{-10}	4,0 10^{-10}	4,1 10^{-10}	4,3$0^{-10}$	3,3 10^{-10}
		M	0,200	1,1 10^{-9}	0,100	7,7 10^{-10}	4,3 10^{-10}	3,2 10^{-10}	2,9 10^{-10}	2,5 10^{-10}
		S	0,020	2,9 10^{-9}	0,010	2,7 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	9,2 10^{-10}	8,5 10^{-10}
Pb-209	3,25 h	F	0,600	1,8 10^{-10}	0,200	1,2 10^{-10}	5,3 10^{-11}	3,4 10^{-11}	1,9 10^{-11}	1,7 10^{-11}
		M	0,200	4,0 10^{-10}	0,100	2,7 10^{-10}	1,3 10^{-10}	9,2 10^{-11}	6,9 10^{-11}	5,6 10^{-11}
		S	0,020	4,4 10^{-10}	0,010	2,9 10^{-10}	1,4 10^{-10}	9,9 10^{-11}	7,5 10^{-11}	6,1 10^{-11}
Pb-210	22,3 a	F	0,600	4,7 10- [illegible]	0,200	2,9 10- [illegible]	1,5 10- [illegible]	1,4 10- [illegible]	1,3 10[illegible]	9,0 10- [illegible]
		M	0,200	5,0 10- [illegible]	0,100	3,7 10- [illegible]	2,2 10- [illegible]	1,5 10- [illegible]	1,3 10- [illegible]	1,1 10- [illegible]
		S	0,020	1,8 10^{-5}	0,010	1,8 10^{-5}	1,1 10^{-5}	7,2 10- [illegible]	5,9 10- [illegible]	5,6 10- [illegible]
Pb-211	0,601 h	F	0,600	2,5 10^{-8}	0,200	1,7 10^{-8}	8,7 10^{-9}	6,1 10^{-9}	4,6 10^{-9}	3,9 10^{-9}
		M	0,200	6,2 10^{-8}	0,100	4,5 10^{-8}	2,5 10^{-8}	1,9 10^{-8}	1,4 10^{-8}	1,1 10^{-8}
		S	0,020	6,6 10^{-8}	0,010	4,8 10^{-8}	2,7 10^{-8}	2,0 10^{-8}	1,5 10^{-8}	1,2 10^{-8}

Pb-212	10,6 h	F	0,600	1,9 10^{-7}	0,200	1,2 10^{-7}	5,4 10^{-8}	3,5 10^{-8}	2,0 10^{-8}	1,8 10^{-8}
		M	0,200	6,2 10^{-7}	0,100	4,6 10^{-7}	3,0 10^{-7}	2,2 10^{-7}	2,2 10^{-7}	1,7 10^{-7}
		S	0,020	6,7 10^{-7}	0,010	5,0 10^{-7}	3,3 10^{-7}	2,5 10^{-7}	2,4 10^{-7}	1,9 10^{-7}
Pb-214	0,447 h	F	0,600	2,2 10^{-8}	0,200	1,5 10^{-8}	6,9 10^{-9}	4,8 10^{-9}	3,3 10^{-9}	2,8 10^{-9}
		M	0,200	6,4 10^{-8}	0,100	4,6 10^{-8}	2,6 10^{-8}	1,9 10^{-8}	1,4 10^{-8}	1,4 10^{-8}
		S	0,020	6,9 10^{-8}	0,010	5,0 10^{-8}	2,8 10^{-8}	2,1 10^{-8}	1,5 10^{-8}	1,5 10^{-8}

Bismuth

Bi-200	0,606 h	F	0,100	1,9 10^{-10}	0,050	1,5 10^{-10}	7,4 10^{-11}	4,5 10^{-11}	2,7 10^{-11}	2,2 10^{-11}
		M	0,100	2,5 10^{-10}	0,050	1,9 10^{-10}	9,9 10^{-11}	6,3 10^{-11}	4,1 10^{-11}	3,3 10^{-11}
Bi-201	1,80 h	F	0,100	4,0 10^{-10}	0,050	3,1 10^{-10}	1,5 10^{-10}	9,3 10^{-11}	5,4 10^{-11}	4,4 10^{-11}
		M	0,100	5,5 10^{-10}	0,050	4,1 10^{-10}	2,0 10^{-10}	1,3 10^{-10}	8,3 10^{-11}	6,6 10^{-11}
Bi-202	1,67 h	F	0,100	3,4 10^{-10}	0,050	2,8 10^{-10}	1,5 10^{-10}	9,0 10^{-11}	5,3 10^{-11}	4,3 10^{-11}
		M	0,100	4,2 10^{-10}	0,050	3,4 10^{-10}	1,8 10^{-10}	1,1 10^{-10}	6,9 10^{-11}	5,5 10^{-11}
Bi-203	11,8 h	F	0,100	1,5 10^{-9}	0,050	1,2 10^{-9}	6,4 10^{-10}	4,0 10^{-10}	2,3 10^{-10}	1,9 10^{-10}
		M	0,100	2,0 10^{-9}	0,050	1,6 10^{-9}	8,2 10^{-10}	5,3 10^{-10}	3,3 10^{-10}	2,6 10^{-10}
Bi-205	15,3 d	F	0,100	3,0 10^{-9}	0,050	2,4 10^{-9}	1,3 10^{-9}	8,0 10^{-10}	4,7 10^{-10}	3,8 10^{-10}
		M	0,100	5,5 10^{-9}	0,050	4,4 10^{-9}	2,5 10^{-9}	1,6 10^{-9}	1,2 10^{-9}	9,3 10^{-10}
Bi-206	6,24 d	F	0,100	6,1 10^{-9}	0,050	4,8 10^{-9}	2,5 10^{-9}	1,6 10^{-9}	9,1 10^{-10}	7,4 10^{-10}
		M	0,100	1,0 10^{-}[illegible]	0,050	8,0 10^{-9}	4,4 10^{-9}	2,9 10^{-9}	2,1 10^{-9}	1,7 10^{-9}
Bi-207	38,0 a	F	0,100	4,3 10^{-9}	0,050	3,3 10^{-9}	1,7 10^{-9}	1,0 10^{-9}	6,0 10^{-10}	4,9 10^{-10}
		M	0,100	2,3 10^{-9}	0,050	2,0 10^{-8}	1,2 10^{-8}	8,2 10^{-9}	6,5 10^{-9}	5,6 10^{-9}
Bi-210	5,01 d	F	0,100	1,1 10^{-}[illegible]	0,050	6,9 10^{-9}	3,2 10^{-9}	2,1 10^{-9}	1,3 10^{-9}	1,1 10^{-9}
		M	0,100	3,9 10^{-}[illegible]	0,050	3,0 10^{-}[illegible]	1,9 10^{-}	1,3 10^{-}	1,1 10^{-}[illegible]	9,3 10^{-8}

							[illegible]	[illegible]		
Bi-210m	3,00 $10^{[illegible]}$ a	F	0,100	4,1 $10^{-[illegible]}$	0,050	2,6 $10^{-[illegible]}$	1,3 $10^{-[illegible]}$	8,3 10^{-8}	5,6 $10^{-[illegible]}$	4,6 10^{-8}
		M	0,100	1,5 $10^{-[illegible]}$	0,050	1,1 $10^{-[illegible]}$	7,0 $10^{-[illegible]}$	4,8 $10^{-[illegible]}$	4,1 $10^{-[illegible]}$	3,4 10^{-8}
Bi-212	1,01 h	F	0,100	6,5 10^{-8}	0,050	4,5 10^{-8}	2,1 10^{-8}	1,5 10^{-8}	1,0 10^{-8}	9,1 10^{-9}
		M	0,100	1,6 10^{-7}	0,050	1,1 10^{-7}	6,0 10^{-8}	4,4 10^{-8}	3,8 10^{-8}	3,1 10^{-8}
Bi-213	0,761 h	F	0,100	7,7 10^{-8}	0,050	5,3 10^{-8}	2,5 10^{-8}	1,7 10^{-8}	1,2 10^{-8}	1,0 10^{-8}
		M	0,100	1,6 10^{-7}	0,050	1,2 10^{-7}	6,0 10^{-8}	4,4 10^{-8}	3,6 10^{-8}	3,0 10^{-8}
Bi-214	0,332 h	F	0,100	5,0 10^{-8}	0,050	3,5 10^{-8}	1,6 10^{-8}	1,1 10^{-8}	8,2 $10^{-[illegible]}$	7,1 $10^{-[illegible]}$
		M	0,100	8,7 10^{-8}	0,050	6,1 10^{-8}	3,1 10^{-8}	2,2 10^{-8}	1,7 10^{-8}	1,4 10^{-8}
Polonium										
Po-203	0,612 h.	F	0,200	1,9 10^{-10}	0,100	1,5 10^{-10}	7,7 10^{-11}	4,7 10^{-11}	2,8 10^{-11}	2,3 10^{-11}
		M	0,200	2,7 10^{-10}	0,100	2,1 10^{-10}	1,1 10^{-10}	6,7 10^{-11}	4,3 10^{-11}	3,5 10^{-11}
		S	0,020	2,8 10^{-10}	0,010	2,2 10^{-10}	1,1 10^{-10}	7,0 10^{-11}	4,5 10^{-11}	3,6 10^{-11}
Po-205	1,80 h	F	0,200	2,6 10^{-10}	0,100	2,1 10^{-10}	1,1 10^{-10}	6,6 10^{-11}	4,1 10^{-11}	3,3 10^{-11}
		M	0,200	4,0 10^{-10}	0,100	3,1 10^{-10}	1,7 10^{-10}	1,1 10^{-10}	8,1 10^{-11}	6,5 10^{-11}
		S	0,200	4,2 10^{-10}	0,010	3,2 10^{-10}	1,8 10^{-10}	1,2 10^{-10}	8,5 10^{-11}	6,9 10^{-11}
Po-207	5,83 h	F	0,200	4,8 10^{-10}	0,100	4,0 10^{-10}	2,1 10^{-10}	1,3 10^{-10}	7,3 10^{-11}	5,8 10^{-11}
		M	0,200	6,2 10^{-10}	0,100	5,1 10^{-10}	2,6 10^{-10}	1,6 10^{-10}	9,9 10^{-11}	7,8 10^{-11}
		S	0,020	6,6 10^{-10}	0,010	5,3 10^{-10}	2,7 10^{-10}	1,7 10^{-10}	1,0 10^{-10}	8,2 10^{-11}
Po-210	138 d	F	0,200	7,4 $10^{-[illegible]}$	0,100	4,8 $10^{-[illegible]}$	2,2 $10^{-[illegible]}$	1,3 $10^{-[illegible]}$	7,7 $10^{-[illegible]}$	6,1 $10^{-[illegible]}$

		M	0,200	1,5 10^{-}[illegible]	0,100	1,1 10^{-5}	6,7 10^{-}[illegible]	4,6 10^{-}[illegible]	4,0 10^{-}[illegible]	3,3 10^{-}[illegible]
		S	0,020	1,8 10^{-5}	0,010	1,4 10^{-5}	8,6 10^{-}[illegible]	5,9 10^{-}[illegible]	5,1 10^{-}[illegible]	4,3 10^{-6}
Astatine										
At-207	1,80 h	F	1,000	2,4 10^{-9}	1,000	1,7 10^{-9}	8,9 10^{-10}	5,9 10^{-10}	4,0 10^{-10}	3,3 10^{-10}
		M	1,000	9,2 10^{-9}	1,000	6,7 10^{-9}	4,3 10^{-9}	3,1 10^{-9}	2,9 10^{-9}	2,3 10^{-8}
At-211	7,21 h	F	1,000	1,4 10^{-}[illegible]	1,000	9,7 10^{-8}	4,3 10^{-8}	2,8 10^{-8}	1,7 10^{-8}	1,6 10^{-8}
		M	1,000	5,2 10^{-}[illegible]	1,000	3,7 10^{-}[illegible]	1,9 10^{-}[illegible]	1,4 10^{-}[illegible]	1,3 10^{-}[illegible]	1,1 10^{-}[illegible]
Francium										
Fr-222	0,240 h	F	1,000	9,1 10^{-8}	1,000	6,3 10^{-8}	3,0 10^{-8}	2,1 10^{-8}	1,6 10^{-6}	1,4 10^{-8}
Fr-223	0,363 h	F	1,000	1,1 10^{-8}	1,000	7,3 10^{-9}	3,2 10^{-9}	1,9 10^{-9}	1,0 10^{-9}	8,9 10^{-10}
Radium(a)										
Ra-223	11,4 d	F	0,600	3,0 10^{-}[illegible]	0,200	1,0 10^{-6}	4,9 10^{-7}	4,0 10^{-7}	3,3 10^{-7}	1,2 10^{-7}
		M	0,200	2,8 10^{-5}	0,100	2,1 10^{-5}	1,3 10^{-5}	9,9 10^{-}[illegible]	9,4 10^{-}[illegible]	7,4 10^{-}[illegible]
		S	0,020	3,2 10^{-5}	0,010	2,4 10^{-5}	1,5 10^{-5}	1,1 10^{-5}	1,1 10^{-5}	8,7 10^{-}[illegible]
Ra-224	3,66 d	F	0,600	1,5 10^{-6}	0,200	6,0 10^{-7}	2,9 10^{-7}	2,2 10^{-7}	1,7 10^{-7}	7,5 10^{-8}
		M	0,200	1,1 10^{-}[illegible]	0,100	8,2 10^{-}[illegible]	5,3 10^{-6}	3,9 10^{-8}	3,7 10^{-8}	3,0 10^{-10}
		S	0,020	1,2 10^{-5}	0,010	9,2 10^{-}[illegible]	5,9 10^{-}[illegible]	4,4 10^{-}[illegible]	4,2 10^{-}[illegible]	3,4 10^{-}[illegible]
Ra-225	14,8 d	F	0,600	4,0 10^{-8}	0,200	1,2 10^{-8}	5,6 10^{-7}	4,6 10^{-7}	3,8 10^{-7}	1,3 10^{-7}
		M	0,200	2,4 10^{-5}	0,100	1,8 10^{-5}	1,1 10^{-5}	8,4 10^{-6}	7,9 10^{-8}	6,3 10^{-8}

		S	0,020	2,8 10^{-5}	0,010	2,2 10^{-5}	1,4 10^{-5}	1,0 10^{-5}	9,8 10^{-8}	7,7 10^{-8}
Ra-226	1,60 10^{3} a	F	0,600	2,6 10^{-}[illegible]	0,200	9,4 10^{-7}	5,5 10^{-7}	7,2 10^{-7}	1,3 10^{-}[illegible]	3,6 10^{-7}
		M	0,200	1,5 10^{-5}	0,100	1,1 10^{-5}	7,0 10^{-6}	4,9 10^{-6}	4,5 10^{-6}	3,5 10^{-6}
		S	0,020	3,4 10^{-5}	0,010	2,9 10^{-5}	1,9 10^{-5}	1,2 10^{-5}	1,0 10^{-5}	9,5 10^{-6}
Ra-227	0,703 h	F	0,600	1,5 10^{-9}	0,200	1,2 10^{-9}	7,8 10^{-10}	6,1 10^{-10}	5,3 10^{-10}	4,6 10^{-10}
		M	0,200	8,0 10^{-10}	0,100	6,7 10^{-10}	4,4 10^{-10}	3,2 10^{-10}	2,9 10^{-10}	2,8 10^{-10}
		S	0,020	1,0 10^{-9}	0,010	8,5 10^{-10}	4,4 10^{-10}	2,9 10^{-10}	2,4 10^{-10}	2,2 10^{-10}
Ra-228	5,75 a	F	0,600	1,7 10^{-5}	0,200	5,7 10^{-6}	3,1 10^{-6}	3,6 10^{-6}	4,6 10^{-6}	9,0 10^{-7}
		M	0,200	1,5 10^{-5}	0,100	1,0 10^{-5}	6,3 10^{-6}	4,6 10^{-6}	4,4 10^{-6}	2,6 10^{-6}
		S	0,020	4,9 10^{-5}	0,010	4,8 10^{-5}	3,2 10^{-6}	2,0 10^{-5}	1,6 10^{-5}	1,6 10^{-5}
Actinium										
Ac-224	2,90 h	F	0,005	1,3 10^{-7}	5,0 10^{-4}	8,9 10^{-8}	4,7 10^{-8}	3,1 10^{-8}	1,4 10^{-8}	1,1 10^{-8}
		M	0,005	4,2 10^{-7}	5,0 10^{-4}	8,9 10^{-8}	4,7 10^{-8}	3,1 10^{-8}	1,4 10^{-8}	1,1 10^{-8}
		S	0,005	4,6 10^{-7}	5,0 10^{-4}	3,2 10^{-7}	2,0 10^{-7}	1,5 10^{-7}	1,4 10^{-7}	1,1 10^{-7}
Ac-225	10,0 d	F	0,005	1,1 10^{-5}	5,0 10^{-4}	7,7 10^{-6}	4,0 10^{-6}	2,6 10^{-6}	1,1 10^{-6}	8,8 10^{-7}
		M	0,005	2,8 10^{-5}	5,0 10^{-4}	2,1 10^{-5}	1,3 10^{-5}	1,0 10^{-5}	9,3 10^{-6}	7,4 10^{-6}
		S	0,005	3,1 10^{-5}	5,0 10^{-4}	2,3 10^{-5}	1,5 10^{-5}	1,1 10^{-5}	1,1 10^{-5}	8,5 10^{-6}
Ac-226	1,21 d	F	0,005	1,5 10^{-6}	5,0 10^{-4}	1,1 10^{-6}	4,0 10^{-7}	2,6 10^{-7}	1,2 10^{-7}	9,6 10^{-8}
		M	0,005	4,3 10^{-6}	5,0 10^{-4}	3,2 10^{-6}	2,1 10^{-6}	1,5 10^{-6}	1,5 10^{-6}	1,2 10^{-6}
		S	0,005	4,7 10^{-6}	5,0 10^{-4}	3,5 10^{-6}	2,3 10^{-6}	1,7 10^{-6}	1,6 10^{-6}	1,3 10^{-6}
Ac-227	21,8 a	F	0,005	1,7 10^{-3}	5,0 10^{-4}	1,6 10^{-3}	1,0 10^{-3}	7,2 10^{-4}	5,6 10^{-4}	5,5 10^{-4}
		M	0,005	5,7 10^{-4}	5,0 10^{-4}	5,5 10^{-4}	3,9 10^{-4}	2,6 10^{-4}	2,3 10^{-4}	2,2 10^{-4}
		S	0,005	2,2 10^{-4}	5,0 10^{-4}	2,0 10^{-4}	1,3 10^{-4}	8,7 10^{-5}	7,6 10^{-5}	7,2 10^{-5}

Ac-228	6,13 h	F	0,005	1,8 10^{-7}	5,0 10^{-4}	1,6 10^{-7}	9,7 10^{-8}	5,7 10^{-8}	2,9 10^{-8}	2,5 10^{-8}
		M	0,005	8,4 10^{-8}	5,0 10^{-4}	7,3 10^{-8}	4,7 10^{-8}	2,9 10^{-8}	2,0 10^{-8}	1,7 10^{-8}
		S	0,005	6,4 10^{-8}	5,0 10^{-4}	5,3 10^{-8}	3,3 10^{-8}	2,2 10^{-8}	1,9 10^{-8}	1,6 10^{-8}
Thorium										
Th-226	0,515 h	F	0,005	1,4 10^{-7}	5,0 10^{-4}	1,0 10^{-7}	4,8 10^{-8}	3,4 10^{-8}	2,5 10^{-8}	2,2 10^{-8}
		M	0,005	3,0 10^{-7}	5,0 10^{-4}	2,1 10^{-7}	1,1 10^{-7}	8,3 10^{-8}	7,0 10^{-8}	5,3 10^{-8}
		S	0,005	3,1 10^{-7}	5,0 10^{-4}	2,2 10^{-7}	1,2 10^{-7}	8,8 10^{-8}	7,5 10^{-8}	6,1 10^{-8}
Th-227	18,7 d	F	0,005	8,4 10^{-6}	5,0 10^{-4}	5,2 10^{-6}	2,6 10^{-6}	1,6 10^{-6}	1,0 10^{-6}	6,7 10^{-7}
		M	0,005	3,2 10^{-5}	5,0 10^{-4}	2,5 10^{-5}	1,6 10^{-5}	1,1 10^{-5}	1,1 10^{-5}	8,5 10^{-6}
		S	0,005	3,9 10^{-5}	5,0 10^{-4}	3,0 10^{-5}	1,9 10^{-5}	1,4 10^{-5}	1,3 10^{-5}	1,0 10^{-5}
Th-228	1,91 a	F	0,005	1,8 10^{-4}	5,0 10^{-4}	1,5 10^{-4}	8,3 10^{-5}	5,2 10^{-5}	3,6 10^{-5}	2,9 10^{-5}
		M	0,005	1,3 10^{-4}	5,0 10^{-4}	1,1 10^{-4}	6,8 10^{-5}	4,6 10^{-5}	3,9 10^{-5}	3,2 10^{-5}
		S	0,005	1,6 10^{-4}	5,0 10^{-4}	1,3 10^{-4}	8,2 10^{-5}	5,5 10^{-5}	4,7 10^{-5}	4,0 10^{-5}
Th-229	7,34 10^{3} a	F	0,005	5,4 10^{-4}	5,0 10^{-4}	5,1 10^{-4}	3,6 10^{-4}	2,9 10^{-4}	2,4 10^{-4}	2,4 10^{-4}
		M	0,005	2,3 10^{-4}	5,0 10^{-4}	2,1 10^{-4}	1,6 10^{-4}	1,2 10^{-4}	1,1 10^{-4}	1,1 10^{-4}
		S	0,005	2,1 10^{-4}	5,0 10^{-4}	1,9 10^{-4}	1,3 10^{-4}	8,7 10^{-5}	7,6 10^{-5}	7,1 10^{-5}
Th-230	7,70 10^{4} a	F	0,005	2,1 10^{-4}	5,0 10^{-4}	2,0 10^{-4}	1,4 10^{-4}	1,1 10^{-4}	9,9 10^{-5}	1,0 10^{-4}
		M	0,005	7,7 10^{-5}	5,0 10^{-4}	7,4 10^{-5}	5,5 10^{-5}	4,3 10^{-5}	4,2 10^{-5}	4,3 10^{-5}
		S	0,005	4,0 10^{-5}	5,0 10^{-4}	3,5 10^{-5}	2,4 10^{-5}	1,6 10^{-5}	1,5 10^{-5}	1,4 10^{-5}
Th-231	1,06 d	F	0,005	1,1 10^{-9}	5,0 10^{-4}	7,2 10^{-10}	2,6 10^{-10}	1,6 10^{-10}	9,2 10^{-11}	7,8 10^{-11}
		M	0,005	2,2 10^{-9}	5,0 10^{-4}	1,6 10^{-9}	8,0 10^{-10}	4,8 10^{-10}	3,8 10^{-10}	3,10^{-10}
		S	0,005	2,4 10^{-9}	5,0 10^{-4}	1,7 10^{-9}	7,6 10^{-10}	5,2 10^{-10}	4,1 10^{-10}	3,3 10^{-10}
Th-232	1,40 10^{10} a	F	0,005	2,3 10^{-4}	5,0 10^{-4}	2,2 10^{-4}	1,6 10^{-4}	1,3 10^{-4}	1,2 10^{-4}	1,1 10^{-4}

		M	0,005	8,3 10^{-5}	5,0 10^{-4}	8,1 10^{-5}	6,3 10^{-5}	5,0 10^{-5}	4,7 10^{-5}	4,5 10^{-5}
		S	0,005	5,4 10^{-5}	5,0 10^{-4}	5,0 10^{-5}	3,7 10^{-5}	2,6 10^{-5}	2,5 10^{-5}	2,5 10^{-5}
Th-234	24,1 d	F	0,005	4,0 10^{-8}	5,0 10^{-4}	2,5 10^{-8}	1,1 10^{-8}	6,1 10^{-9}	3,5 10^{-9}	2,5 10^{-9}
		M	0,005	3,9 10^{-8}	5,0 10^{-4}	2,9 10^{-8}	1,5 10^{-8}	1,0 10^{-8}	7,9 10^{-9}	6,6 10^{-9}
		S	0,005	4,1 10^{-8}	5,0 10^{-4}	3,1 10^{-8}	1,7 10^{-8}	1,1 10^{-8}	9,1 10^{-9}	7,7 10^{-9}
Protactinium										
Pa-227	0,638 h	M	0,005	3,6 10^{-7}	5,0 10^{-4}	2,6 10^{-7}	1,4 10^{-7}	1,0 10^{-7}	9,0 10^{-8}	7,4 10^{-8}
		S	0,005	3,8 10^{-7}	5,0 10^{-4}	2,8 10^{-7}	1,5 10^{-7}	1,1 10^{-7}	8,1 10^{-8}	8,0 10^{-8}
Pa-228	22,0 h	M	0,005	2,6 10^{-7}	5,0 10^{-4}	2,1 10^{-7}	1,3 10^{-7}	8,8 10^{-8}	7,7 10^{-8}	6,4 10^{-8}
		S	0,005	2,9 10^{-7}	5,0 10^{-4}	2,4 10^{-7}	1,5 10^{-7}	1,0 10^{-7}	9,1 10^{-8}	7,5 10^{-8}
Pa-230	17,4 d	M	0,005	2,4 10^{-6}	5,0 10^{-4}	1,8 10^{-6}	1,1 10^{-6}	8,3 10^{-7}	7,6 10^{-7}	6,1 10^{-7}
		S	0,005	2,9 10^{-6}	5,0 10^{-4}	2,2 10^{-6}	1,4 10^{-6}	1,0 10^{-6}	9,6 10^{-7}	7,6 10^{-7}
Pa-231	3,27 10^{-4} a	M	0,005	2,2 10^{-4}	5,0 10^{-4}	2,3 10^{-4}	1,9 10^{-4}	1,5 10^{-4}	1,5 10^{-4}	1,4 10^{-4}
		S	0,005	7,4 10^{-5}	5,0 10^{-4}	6,9 10^{-5}	5,2 10^{-5}	3,9 10^{-5}	3,6 10^{-5}	3,4 10^{-5}
Pa-232	1,31 d	M	0,005	1,9 10^{-8}	5,0 10^{-4}	1,8 10^{-8}	1,4 10^{-8}	1,1 10^{-8}	1,0 10^{-8}	1,0 10^{-8}
		S	0,005	1,0 10^{-8}	5,0 10^{-4}	8,7 10^{-9}	5,9 10^{-9}	4,1 10^{-9}	3,7 10^{-9}	3,5 10^{-9}
Pa-233	27,0 d	M	0,005	1,5 10^{-8}	5,0 10^{-4}	1,1 10^{-8}	6,5 10^{-9}	4,7 10^{-9}	4,1 10^{-9}	3,3 10^{-9}
		S	0,005	1,7 10^{-8}	5,0 10^{-4}	1,3 10^{-8}	7,5 10^{-9}	5,5 10^{-9}	4,9 10^{-9}	3,9 10^{-9}
Pa-234	6,70 h	M	0,005	2,8 10^{-9}	5,0 10^{-4}	2,0 10^{-9}	1,0 10^{-9}	6,8 10^{-10}	4,7 10^{-10}	3,8 10^{-10}
		S	0,005	2,9 10^{-9}	5,0 10^{-4}	2,1 10^{-9}	1,1 10^{-9}	7,1 10^{-10}	5,0 10^{-10}	4,0 10^{-10}
Uranimum										
U-230	20,8 d	F	0,040	3,2 10^{-6}	0,020	1,5 10^{-6}	7,2 10^{-7}	5,4 10^{-7}	4,1 10^{-7}	3,8 10^{-7}
		M	0,04	4,9 10^{-5}	0,02	3,7 10^{-5}	2,4	1,8	1,7 10^{-5}	1,3 10-

			0		0		10^{-5}	10^{-5}		5
		S	0,020	5,8 10^{-5}	0,002	4,4 10^{-5}	2,8 10^{-5}	2,1 10^{-5}	2,0 10^{-5}	1,6 10^{-5}
U-231	4,20 d	F	0,040	8,9 10^{-10}	0,020	6,2 10^{-10}	3,1 10^{-10}	1,4 10^{-10}	1,0 10^{-10}	6,2 10^{-11}
		M	0,040	2,4 10^{-9}	0,020	1,7 10^{-9}	9,4 10^{-10}	5,5 10^{-10}	4,6 10^{-10}	3,8 10^{-10}
		S	0,020	2,6 10^{-9}	0,002	1,9 10^{-9}	9,0 10^{-10}	6,1 10^{-10}	4,9 10^{-10}	4,0 10^{-10}
U-232	72,0 a	F	0,040	1,6 10^{-5}	0,020	1,0 10^{-5}	6,9 10^{-6}	6,8 10^{-6}	7,5 10^{-6}	4,0 10^{-6}
		M	0,040	3,0 10^{-5}	0,020	2,4 10^{-5}	1,6 10^{-5}	1,1 10^{-5}	1,0 10^{-5}	7,8 10^{-6}
		S	0,020	1,0 10^{-4}	0,002	9,7 10^{-5}	6,6 10^{-5}	4,3 10^{-5}	3,8 10^{-5}	3,7 10^{-5}
U-233	1,58 10^{5} a	F	0,040	2,2 10^{-6}	0,020	1,4 10^{-6}	9,4 10^{-7}	8,4 10^{-7}	8,6 10^{-7}	5,8 10^{-7}
		M	0,040	1,5 10^{-5}	0,020	1,1 10^{-5}	7,2 10^{-6}	4,9 10^{-6}	4,3 10^{-6}	3,6 10^{-6}
		S	0,020	3,4 10^{-5}	0,002	3,0 10^{-5}	1,9 10^{-5}	1,2 10^{-5}	1,1 10^{-5}	9,6 10^{-6}
U-234	2,44 10^{-5} a	F	0,040	2,1 10^{-6}	0,020	1,4 10^{-6}	9,0 10^{-7}	8,0 10^{-7}	8,2 10^{-7}	5,6 10^{-7}
		M	0,040	1,5 10^{-5}	0,020	1,1 10^{-5}	7,0 10^{-6}	4,8 10^{-6}	4,2 10^{-6}	3,5 10^{-6}
		S	0,020	3,3 10^{-5}	0,002	2,9 10^{-5}	1,9 10^{-5}	1,2 10^{-5}	1,0 10^{-5}	9,4 10^{-6}
U-235	7,04 10^{8} a	F	0,040	2,0 10^{-6}	0,020	1,3 10^{-6}	8,5 10^{-7}	7,5 10^{-7}	7,7 10^{-7}	5,2 10^{-7}
		M	0,040	1,3 10^{-5}	0,020	1,0 10^{-5}	6,3 10^{-6}	4,3 10^{-6}	3,7 10^{-6}	3,1 10^{-6}
		S	0,020	3,0 10^{-5}	0,002	2,6 10^{-5}	1,7 10^{-5}	1,1 10^{-5}	9,2 10^{-9}	8,5 10^{-6}
U-236	2,34 10^{7} a	F	0,040	2,0 10^{-6}	0,020	1,3 10^{-6}	8,5 10^{-7}	7,5 10^{-7}	7,8 10^{-7}	5,3 10^{-7}
		M	0,040	1,4 10^{-5}	0,020	1,0 10^{-5}	6,5 10^{-8}	4,5 10^{-6}	3,9 10^{-6}	3,2 10^{-8}
		S	0,020	3,1 10^{-5}	0,002	2,7 10^{-5}	1,8 10^{-5}	1,1 10^{-5}	9,3 10^{-6}	8,7 10^{-9}
U-237	6,75 d	F	0,040	1,8 10^{-9}	0,020	1,5 10^{-9}	6,6 10^{-10}	4,2 10^{-10}	1,9 10^{-10}	1,8 10^{-10}
		M	0,040	7,8 10^{-9}	0,020	5,7 10^{-9}	3,3 10^{-9}	2,4 10^{-9}	2,1 10^{-9}	1,7 10^{-9}
		S	0,020	8,7 10^{-9}	0,002	6,4 10^{-9}	3,7 10^{-9}	2,7 10^{-9}	2,4 10^{-9}	1,9 10^{-9}

U-238	4,47 10^{9} a	F	0,040	1,9 10^{-6}	0,020	1,3 10^{-6}	8,2 10^{-7}	7,3 10^{-7}	7,4 10^{-7}	5,0 10^{-7}
		M	0,040	1,2 10^{-5}	0,020	9,4 10^{-6}	5,9 10^{-6}	4,0 10^{-6}	3,4 10^{-6}	2,9 10^{-6}
		S	0,020	2,9 10^{-5}	0,002	2,5 10^{-5}	1,6 10^{-5}	1,0 10^{-5}	8,7 10^{-9}	8,0 10^{-6}
U-239	0,392 h	F	0,040	1,0 10^{-10}	0,020	6,6 10^{-11}	2,9 10^{-11}	1,2 10^{-11}	1,2 10^{-11}	1,0 10^{-11}
		M	0,040	1,8 10^{-10}	0,020	1,2 10^{-10}	5,6 10^{-11}	3,8 10^{-11}	2,7 10^{-11}	2,2 10^{-11}
		S	0,020	1,9 10^{-10}	0,002	1,2 10^{-10}	5,9 10^{-11}	4,0 10^{-11}	2,9 10^{-11}	2,4 10^{-11}
U-240	14,1 h	F	0,040	2,4 10^{-9}	0,020	1,6 10^{-9}	7,1 10^{-10}	4,5 10^{-10}	2,3 10^{-10}	2,0 10^{-10}
		M	0,040	4,6 10^{-9}	0,020	3,1 10^{-9}	1,7 10^{-9}	1,1 10^{-9}	6,5 10^{-10}	5,3 10^{-10}
		S	0,020	4,9 10^{-9}	0,002	3,3 10^{-9}	1,6 10^{-9}	1,1 10^{-9}	7,0 10^{-10}	5,8 10^{-10}

Neptunium

NP-232	0,245 h	F	0,005	2,0 10^{-10}	5,0 10^{-4}	1,9 10^{-10}	1,2 10^{-10}	1,1 10^{-10}	1,1 10^{-10}	1,2 10^{-10}
		M	0,005	8,9 10^{-11}	5,0 10^{-4}	8,1 10^{-11}	5,5 10^{-11}	4,5 10^{-11}	4,7 10^{-11}	5,0 10^{-11}
		S	0.005	1,2 10^{-10}	5,0 10^{-4}	9,7 10^{-11}	5,8 10^{-11}	3,9 10^{-11}	2,3 10^{-11}	2,4 10^{-11}
Np-233	0,603 h	F	0,005	1,1 10^{-11}	5,0 10^{-4}	8,7 10^{-12}	4,2 10^{-12}	1,4 10^{-12}	1,4 1^{-12}	1,1 10^{-12}
		M	0,005	1,5 10^{-11}	5,0 10^{-4}	1,1 10^{-11}	5,5 10^{-12}	3,3 10^{-12}	2,1 10^{-12}	1,6 10^{-12}
		S	0,005	1,5 10^{-11}	5,0 10^{-4}	1,2 10^{-11}	5,7 10^{-12}	3,4 10^{-12}	2,1 10^{-12}	1,7 10^{-12}
Np-234	4,40 d	F	0,005	2,9 10^{-9}	5,0 10^{-4}	2,2 10^{-9}	1,1 10^{-9}	7,2 10^{-10}	4,3 10^{-10}	3,5 10^{-10}
		M	0,005	3,8 10^{-9}	5,0 10^{-4}	3,0 10^{-9}	1,6 10^{-9}	1,0 10^{-9}	6,5 10^{-10}	5,3 10^{-10}
		S	0,005	3,9 10^{-9}	5,0 10^{-4}	3,1 10^{-9}	1,6 10^{-9}	1,0 10^{-9}	6,8 10^{-10}	5,5 10^{-10}
Np-235	1.08 a	F	0,005	4,2 10^{-9}	5,0 10^{-6}	3,5 10^{-4}	1,9 10^{-9}	1,1 10^{-9}	7,5 10^{-10}	6,3 10^{-10}
		M	0,005	2,3 10^{-9}	5,0 10^{-4}	1,9 10^{-9}	1,1 10^{-9}	6,8 10^{-10}	5,1 10^{-10}	4,2 10^{-10}
		S	0,005	2,6 10^{-9}	5,0 10^{-4}	2,2 10^{-9}	1,3 10^{-9}	8,3 10^{-10}	6,3 10^{-10}	5,2 10^{-10}
Np-236	1,15 10^{5} a	F	0,005	8,9 10^{-6}	5,0 10^{-4}	9,1 10^{-6}	7,2 10^{-6}	7,5 10^{-6}	7,9 10^{-6}	8,0 10^{-6}

		M	0,005	3,0 10^{-6}	5,0 10^{-4}	3,1 10^{-6}	2,7 10^{-6}	2,7 10^{-6}	3,1 10^{-6}	3,2 10^{-6}
		S	0,005	1,6 10^{-6}	5,0 10^{-4}	1,6 10^{-6}	1,3 10^{-6}	1,0 10^{-6}	1,0 10^{-6}	1,0 10^{-6}
Np-236	22,5 h	F	0,005	2,8 10^{-8}	5,0 10^{-4}	2,6 10^{-8}	1,5 10^{-8}	1,1 10^{-8}	8,9 10^{-9}	9,0 10^{-9}
		M	0,005	1,6 10^{-8}	5,0 10^{-4}	1,4 10^{-8}	8,9 10^{-9}	6,2 10^{-9}	5,6 10^{-9}	5,3 10^{-9}
		S	0,005	1,6 10^{-8}	5,0 10^{-4}	1,3 10^{-8}	8,5 10^{-9}	5,7 10^{-9}	4,8 10^{-9}	4,2 10^{-9}
Np-237	2,14 10^{6} a	F	0,005	9,8 10^{-5}	5,0 10^{-4}	9,3 10^{-5}	6,0 10^{-5}	5,0 10^{-5}	4,7 10^{-5}	5,0 10^{-5}
		M	0,005	4,4 10^{-5}	5,0 10^{-4}	4,0 10^{-5}	2,8 10^{-5}	2,2 10^{-5}	2,2 10^{-5}	2,3 10^{-5}
		S	0,005	3,7 10^{-5}	5,0 10^{-4}	3,2 10^{-5}	2,1 10^{-5}	1,4 10^{-5}	1,3 10^{-5}	1,2 10^{-5}
Np-238	2,12 d	F	0,005	9,0 10^{-9}	5,0 10^{-4}	7,9 10^{-9}	4,8 10^{-9}	3,7 10^{-9}	3,3 10^{-9}	3,5 10^{-9}
		M	0,005	7,3 10^{-9}	5,0 10^{-4}	5,8 10^{-9}	3,4 10^{-9}	2,5 10^{-9}	2,2 10^{-9}	2,1 10^{-9}
		S	0,005	8,1 10^{-9}	5,0 10^{-4}	6,2 10^{-9}	3,2 10^{-9}	2,1 10^{-9}	1,7 10^{-9}	1,5 10^{-9}
Np-239	2,36 d	F	0,005	2,6 10^{-9}	5,0 10^{-4}	1,4 10^{-9}	6,3 10^{-10}	3,8 10^{-10}	2,1 10^{-10}	1,7 10^{-10}
		M	0,005	5,9 10^{-9}	5,0 10^{-4}	4,2 10^{-9}	2,0 10^{-9}	1,4 10^{-10}	1,2 10^{-9}	9,3 10^{-10}
		S	0,005	5,6 10^{-9}	5,0 10^{-4}	4,0 10^{-9}	2,2 10^{-9}	1,6 10^{-10}	1,3 10^{-9}	1,0 10^{-9}
Np-240	1,08 h	F	0,005	3,6 10^{-10}	5,0 10^{-4}	2,6 10^{-10}	1,2 10^{-10}	7,7 10^{-11}	4,7 10^{-11}	4,0 10^{-11}
		M	0,005	6,3 10^{-10}	5,0 10^{-4}	4,4 10^{-10}	2,2 10^{-10}	1,4 10^{-10}	1,0 10^{-10}	8,5 10^{-11}
		S	0,005	6,5 10^{-10}	5,0 10^{-4}	4,6 10^{-10}	2,3 10^{-10}	1,5 10^{-10}	1,1 10^{-10}	9,0 10^{-11}

Plutonium

Pu-234	8,80 h	F	0,005	3,0 10^{-8}	5,0 10^{-4}	2,0 10^{-8}	9,8 10^{-9}	5,7 10^{-9}	3,6 10^{-9}	3,0 10^{-9}
		M	0,005	7,8 10^{-8}	5,0 10^{-4}	3,7 10^{-8}	2,8 10^{-8}	2,6 10^{-8}	2,1 10^{-8}	2,1 10^{-8}
		S	1,0 10^{-4}	8,7 10^{-8}	1,0 10^{-5}	6,6 10^{-8}	4,2 10^{-8}	3,1 10^{-8}	3,0 10^{-8}	2,4 10^{-8}
Pu-235	0,422 h	F	0,005	1,0 10^{-11}	5,0 10^{-4}	7,9 10^{-12}	3,9 10^{-12}	2,2 10^{-12}	1,3 10^{-12}	1,0 10^{-12}
		M	0,005	1,3 10^{-11}	5,0 10^{-4}	1,0 10^{-11}	5,0 10^{-12}	2,9 10^{-12}	1,9 10^{-12}	1,4 10^{-12}

		S	$1,0\ 10^{-4}$	$1,3\ 10^{-11}$	$1,0\ 10^{-5}$	$1,0\ 10^{-11}$	$5,1\ 10^{-12}$	$3,0\ 10^{-12}$	$1,9\ 10^{-12}$	$1,5\ 10^{-12}$
Pu-236	2,85 a	F	0,005	$1,0\ 10^{-4}$	$5,0\ 10^{-4}$	$9,5\ 10^{-5}$	$6,1\ 10^{-5}$	$4,4\ 10^{-5}$	$3,7\ 10^{-5}$	$4,0\ 10^{-5}$
		M	0,005	$4,8\ 10^{-5}$	$5,0\ 10^{-4}$	$4,3\ 10^{-5}$	$2,9\ 10^{-5}$	$2,1\ 10^{-5}$	$1,9\ 10^{-5}$	$2,0\ 10^{-5}$
		S	$1,0\ 10^{-4}$	$3,6\ 10^{-5}$	$1,0\ 10^{-5}$	$3,1\ 10^{-5}$	$2,0\ 10^{-5}$	$1,4\ 10^{-5}$	$1,2\ 10^{-5}$	$1,0\ 10^{-5}$
Pu-237	45,3 d	F	0,005	$2,2\ 10^{-9}$	$5,0\ 10^{-4}$	$1,6\ 10^{-9}$	$7,9\ 10^{-10}$	$4,8\ 10^{-10}$	$2,9\ 10^{-10}$	$2,6\ 10^{-10}$
		M	0,005	$1,9\ 10^{-9}$	$5,0\ 10^{-4}$	$1,4\ 10^{-9}$	$8,2\ 10^{-10}$	$5,4\ 10^{-10}$	$4,3\ 10^{-10}$	$3,5\ 10^{-10}$
		S	$1,0\ 10^{-4}$	$2,0\ 10^{-9}$	$1,0\ 10^{-5}$	$1,5\ 10^{-9}$	$8,8\ 10^{-10}$	$5,9\ 10^{-10}$	$4,8\ 10^{-10}$	$3,9\ 10^{-10}$
Pu-238	87,7 a	F	0,005	$2,0\ 10^{-4}$	$5,0\ 10^{-4}$	$1,9\ 10^{-4}$	$1,4\ 10^{-4}$	$1,1\ 10^{-4}$	$1,0\ 10^{-4}$	$1,1\ 10^{-4}$
		M	0,005	$7,8\ 10^{-5}$	$5,0\ 10^{-4}$	$7,4\ 10^{-5}$	$5,6\ 10^{-5}$	$4,4\ 10^{-5}$	$4,3\ 10^{-5}$	$4,6\ 10^{-5}$
		S	$1,0\ 10^{-4}$	$4,5\ 10^{-5}$	$1,0\ 10^{-5}$	$4,0\ 10^{-5}$	$2,7\ 10^{-5}$	$1,9\ 10^{-5}$	$1,7\ 10^{-5}$	$1,6\ 10^{-5}$
Pu-239	$2,41\ 10^{4}$ a	F	0,005	$2,1\ 10^{-4}$	$5,0\ 10^{-4}$	$2,0\ 10^{-4}$	$1,5\ 10^{-4}$	$1,2\ 10^{-4}$	$1,1\ 10^{-4}$	$1,2\ 10^{-4}$
		M	0,005	$8,0\ 10^{-5}$	$5,0\ 10^{-4}$	$7,7\ 10^{-5}$	$6,0\ 10^{-5}$	$4,8\ 10^{-5}$	$4,7\ 10^{-5}$	$5,0\ 10^{-5}$
		S	$1,0\ 10^{-4}$	$4,3\ 10^{-5}$	$1,0\ 10^{-5}$	$3,9\ 10^{-5}$	$2,9\ 10^{-5}$	$1,9\ 10^{-5}$	$1,7\ 10^{-5}$	$1,6\ 10^{-5}$
Pu-240	$6,54\ 10^{3}$ a	F	0,005	$2,1\ 10^{-4}$	$5,0\ 10^{-4}$	$2,0\ 10^{-4}$	$1,5\ 10^{-4}$	$1,2\ 10^{-4}$	$1,1\ 10^{-4}$	$1,2\ 10^{-4}$
		M	0,005	$8,0\ 10^{-5}$	$5,0\ 10^{-4}$	$7,7\ 10^{-5}$	$6,0\ 10^{-5}$	$4,8\ 10^{-5}$	$4,7\ 10^{-5}$	$5,0\ 10^{-5}$
		S	$1,0\ 10^{-4}$	$4,3\ 10^{-5}$	$1,0\ 10^{-5}$	$3,9\ 10^{-5}$	$2,7\ 10^{-5}$	$1,9\ 10^{-5}$	$1,7\ 10^{-5}$	$1,6\ 10^{-5}$
Pu-241	14,4 a	F	0,005	$2,8\ 10^{-6}$	$5,0\ 10^{-4}$	$2,9\ 10^{-6}$	$2,6\ 10^{-6}$	$2,4\ 10^{-6}$	$2,2\ 10^{-6}$	$2,3\ 10^{-6}$
		M	0,005	$9,1\ 10^{-7}$	$5,0\ 10^{-4}$	$9,7\ 10^{-7}$	$9,2\ 10^{-7}$	$8,3\ 10^{-7}$	$8,6\ 10^{-7}$	$9,0\ 10^{-7}$
		S	$1,0\ 10^{-4}$	$2,2\ 10^{-7}$	$1,0\ 10^{-5}$	$2,3\ 10^{-7}$	$2,0\ 10^{-7}$	$1,7\ 10^{-7}$	$1,7\ 10^{-7}$	$1,7\ 10^{-7}$
Pu-242	$3,76\ 10^{5}$ a	F	0,005	$2,0\ 10^{-4}$	$5,0\ 10^{-4}$	$1,9\ 10^{-4}$	$1,4\ 10^{-4}$	$1,2\ 10^{-4}$	$1,1\ 10^{-4}$	$1,1\ 10^{-4}$
		M	0,005	$7,6\ 10^{-5}$	$5,0\ 10^{-4}$	$8,3\ 10^{-5}$	$5,7\ 10^{-5}$	$4,5\ 10^{-5}$	$4,5\ 10^{-5}$	$4,8\ 10^{-5}$
		S	$1,0\ 10^{-4}$	$4,0\ 10^{-5}$	$1,0\ 10^{-5}$	$3,6\ 10^{-5}$	$2,5\ 10^{-5}$	$1,7\ 10^{-5}$	$1,6\ 10^{-5}$	$1,5\ 10^{-5}$
Pu-243	4,95 h	F	0,00	$2,7\ 10^{-10}$	5,0	$1,9\ 10^{-10}$	8,8	5,7	$3,5\ 10^{-11}$	$3,2\ 10^{-}$

			5		10^{-4}		10^{-11}	10^{-11}		11
		M	0,005	5,6 10^{-10}	5,0 10^{-4}	3,9 10^{-10}	1,9 10^{-10}	1,3 10^{-10}	8,7 10^{-11}	8,3 10^{-11}
		S	1,0 10^{-4}	6,0 10^{-10}	1,0 10^{-5}	4,1 10^{-10}	2,0 10^{-10}	1,4 10^{-10}	9,2 10^{-11}	8,6 10^{-11}
Pu-244	8,26 10^{-} a	F	0,005	2,0 10^{-4}	5,0 10^{-4}	1,9 10^{-4}	1,4 10^{-4}	1,2 10^{-4}	1,1 10^{-4}	1,1 10^{-4}
		M	0,005	7,4 10^{-5}	5,0 10^{-4}	7,2 10^{-5}	5,6 10^{-5}	4,5 10^{-5}	4,4 10^{-5}	4,7 10^{-5}
		S	1.0 10^{-4}	3,9 10^{-5}	1,0 10^{-5}	3,5 10^{-5}	2,4 10^{-5}	1,7 10^{-5}	1,5 10^{-5}	1,5 10^{-5}
Pu-245	10,5 h	F	0,005	1,8 10^{-9}	5,0 10^{-4}	1,3 10^{-9}	5,6 10^{-10}	3,5 10^{-10}	1,9 10^{-10}	1,6 10^{-10}
		M	0,005	3,6 10^{-9}	5,0 10^{-4}	2,5 10^{-9}	1,2 10^{-9}	8,0 10^{-10}	5,0 10^{-10}	4,0 10^{-10}
		S	1,0 10^{-4}	3,8 10^{-9}	1,0 10^{-5}	2,6 10^{-9}	1,3 10^{-9}	8,5 10^{-10}	5,4 10^{-10}	4,3 10^{-10}
Pu-246	10,9 d	F	0.005	2,0 10^{-8}	5,0 10^{-4}	1,4 10^{-8}	7,0 10^{-9}	4,4 10^{-9}	2,8 10^{-9}	2,5 10^{-9}
		M	0.005	3,5 10^{-8}	5,0 10^{-4}	2,6 10^{-8}	1,5 10^{-8}	1,1 10^{-8}	9,1 10^{-9}	7,4 10^{-9}
		S	1,0 10^{-4}	3,8 10^{-8}	1,0 10^{-5}	2,8 10^{-8}	1,6 10^{-8}	1,2 10^{-8}	1,0 10^{-8}	8,0 10^{-9}
Americium										
Am-237	1,22 h	F	0,005	9,8 10^{-11}	5,0 10^{-4}	7,3 10^{-11}	3,5 10^{-11}	2,2 10^{-11}	1,3 10^{-11}	1,1 10^{-11}
		M	0,005	1,7 10^{-10}	5,0 10^{-4}	1,2 10^{-10}	6,2 10^{-11}	4,1 10^{-11}	3,0 10^{-11}	2,5 10^{-11}
		S	0,005	1,7 10^{-10}	5,0 10^{-4}	1,3 10^{-10}	6,5 10^{-11}	4,3 10^{-11}	3,2 10^{-11}	2,6 10^{-11}
Am-238	1,63 h	F	0,005	4,1 10^{-10}	5,0 10^{-4}	3,8 10^{-10}	2,5 10^{-10}	2,0 10^{-10}	1,8 10^{-10}	1,9 10^{-11}
		M	0,005	3,1 10^{-10}	5,0 10^{-4}	2,6 10^{-10}	1,3 10^{-10}	9,6 10^{-11}	8,8 10^{-11}	9,0 10^{-11}
		S	0,005	2,7 10^{-10}	5,0 10^{-4}	2,2 10^{-10}	1,3 10^{-10}	8,2 10^{-11}	6,1 10^{-11}	5,4 10^{-11}
Am-239	11.9 h	F	0,005	8,1 10^{-10}	5,0 10^{-4}	5,8 10^{-10}	2,6 10^{-10}	1,6 10^{-10}	9,1 10^{-11}	7,6 10^{-11}
		M	0,005	1,5 10^{-9}	5,0 10^{-4}	1,1 10^{-9}	5,9 10^{-10}	4,0 10^{-10}	2,5 10^{-10}	2,2 10^{-10}
		S	0,005	1,6 10^{-9}	5,0 10^{-4}	1,1 10^{-9}	5,9 10^{-10}	4,0 10^{-10}	2,5 10^{-10}	2,4 10^{-10}
Am-240	2,12 d	F	0,005	2,0 10^{-9}	5,0 10^{-4}	1,7 10^{-9}	8,8 10^{-10}	5,7 10^{-10}	3,6 10^{-10}	2,3 10^{-10}

		M	0,005	$2,9\ 10^{-9}$	$5,0\ 10^{-4}$	$2,2\ 10^{-9}$	$1,2\ 10^{-9}$	$7,7\ 10^{-10}$	$5,3\ 10^{-10}$	$4,3\ 10^{-10}$
		S	0,005	$3,0\ 10^{-9}$	$5,0\ 10^{-4}$	$2,3\ 10^{-9}$	$1,2\ 10^{-9}$	$7,8\ 10^{-10}$	$5,3\ 10^{-10}$	$4,3\ 10^{-10}$
Am-241	$4,32\ 10^{2}$ a	F	0,005	$1,8\ 10^{-4}$	$5,0\ 10^{-4}$	$1,8\ 10^{-4}$	$1,2\ 10^{-4}$	$1,0\ 10^{-4}$	$9,2\ 10^{-5}$	$9,6\ 10^{-5}$
		M	0,005	$7,3\ 10^{-5}$	$5,0\ 10^{-4}$	$6,9\ 10^{-5}$	$5,1\ 10^{-5}$	$4,0\ 10^{-5}$	$4,0\ 10^{-5}$	$4,2\ 10^{-5}$
		S	0,005	$4,6\ 10^{-5}$	$5,0\ 10^{-4}$	$4,0\ 10^{-5}$	$2,7\ 10^{-5}$	$1,9\ 10^{-5}$	$1,7\ 10^{-5}$	$1,6\ 10^{-5}$
Am-242	16.0 h	F	0,005	$9,2\ 10^{-8}$	$5,0\ 10^{-4}$	$7,1\ 10^{-8}$	$3,5\ 10^{-8}$	$2,1\ 10^{-8}$	$1,4\ 10^{-8}$	$1,1\ 10^{-8}$
		M	0,005	$7,6\ 10^{-8}$	$5,0\ 10^{-4}$	$5,9\ 10^{-8}$	$3,6\ 10^{-8}$	$2,4\ 10^{-8}$	$2,1\ 10^{-8}$	$1,7\ 10^{-8}$
		S	0,005	$8,0\ 10^{-8}$	$5,0\ 10^{-4}$	$6,2\ 10^{-8}$	$3,9\ 10^{-8}$	$2,7\ 10^{-8}$	$2,4\ 10^{-8}$	$2,0\ 10^{-8}$
Am-242m	$1,52\ 10^{2}$ a	F	0,005	$1,6\ 10^{-4}$	$5,0\ 10^{-4}$	$1,5\ 10^{-4}$	$1,1\ 10^{-4}$	$9,4\ 10^{-5}$	$8,0\ 10^{-5}$	$9,2\ 10^{-5}$
		M	0,005	$5,2\ 10^{-5}$	$5,0\ 10^{-4}$	$5,3\ 10^{-5}$	$4,1\ 10^{-5}$	$3,4\ 10^{-5}$	$3,5\ 10^{-5}$	$3,7\ 10^{-5}$
		S	0,005	$2,5\ 10^{-5}$	$5,0\ 10^{-4}$	$2,4\ 10^{-5}$	$1,7\ 10^{-5}$	$1,2\ 10^{-5}$	$1,1\ 10^{-5}$	$1,1\ 10^{-5}$
Am-243	$7,38\ 10^{3}$ a	F	0,005	$1,8\ 10^{-4}$	$5,0\ 10^{-4}$	$1,7\ 10^{-4}$	$1,2\ 10^{-4}$	$1,0\ 10^{-4}$	$9,1\ 10^{-5}$	$9,6\ 10^{-5}$
		M	0,005	$1,8\ 10^{-5}$	$5,0\ 10^{-4}$	$6,8\ 10^{-5}$	$5,0\ 10^{-5}$	$4,0\ 10^{-5}$	$4,0\ 10^{-5}$	$4,1\ 10^{-5}$
		S	0,005	$4,4\ 10^{-5}$	$5,0\ 10^{-4}$	$3,9\ 10^{-5}$	$2,6\ 10^{-5}$	$1,8\ 10^{-5}$	$1,6\ 10^{-5}$	$1,5\ 10^{-5}$
Am-244	10.1 h	F	0,005	$1,0\ 10^{-8}$	$5,0\ 10^{-4}$	$9,2\ 10^{-9}$	$5,6\ 10^{-9}$	$4,1\ 10^{-9}$	$3,5\ 10^{-9}$	$3,7\ 10^{-9}$
		M	0,005	$6,0\ 10^{-9}$	$5,0\ 10^{-4}$	$5,0\ 10^{-9}$	$3,2\ 10^{-9}$	$2,2\ 10^{-9}$	$2,0\ 10^{-9}$	$2,0\ 10^{-9}$
		S	0,005	$6,1\ 10^{-9}$	$5,0\ 10^{-4}$	$4,8\ 10^{-9}$	$2,4\ 10^{-9}$	$1,6\ 10^{-9}$	$1,4\ 10^{-9}$	$1,2\ 10^{-9}$
Am-244m	0,433 h	F	0,005	$4,6\ 10^{-10}$	$5,0\ 10^{-10}$	$4,0\ 10^{-10}$	$2,4\ 10^{-10}$	$1,8\ 10^{-10}$	$1,5\ 10^{-10}$	$1,6\ 10^{-10}$
		M	0,005	$3,3\ 10^{-10}$	$5,0\ 10^{-4}$	$2,1\ 10^{-10}$	$1,3\ 10^{-10}$	$9,2\ 10^{-11}$	$8,3\ 10^{-11}$	$8,4\ 10^{-11}$
		S	0,005	$3,0\ 10^{-10}$	$5,0\ 10^{-4}$	$2,2\ 10^{-10}$	$1,2\ 10^{-10}$	$8,1\ 10^{-11}$	$5,5\ 10^{-11}$	$5,7\ 10^{-11}$
Am-245	2,05 h	F	0,005	$2,1\ 10^{-10}$	$5,0\ 10^{-4}$	$1,4\ 10^{-10}$	$6,2\ 10^{-11}$	$4,0\ 10^{-11}$	$2,4\ 10^{-11}$	$2,1\ 10^{-11}$
		M	0,005	$3,9\ 10^{-10}$	$5,0\ 10^{-4}$	$2,6\ 10^{-10}$	$1,3\ 10^{-10}$	$8,7\ 10^{-11}$	$6,4\ 10^{-11}$	$5,3\ 10^{-11}$

		S	0,005	$4,1\ 10^{-10}$	$5,0\ 10^{-4}$	$2,8\ 10^{-10}$	$1,3\ 10^{-10}$	$9,2\ 10^{-11}$	$6,8\ 10^{-11}$	$5,6\ 10^{-11}$
Am-246	0,650 h	F	0,005	$3,0\ 10^{-10}$	$5,0\ 10^{-4}$	$2,0\ 10^{-10}$	$9,3\ 10^{-11}$	$6,1\ 10^{-11}$	$3,8\ 10^{-11}$	$3,3\ 10^{-11}$
		M	0,005	$5,0\ 10^{-10}$	$5,0\ 10^{-4}$	$3,4\ 10^{-10}$	$1,6\ 10^{-10}$	$1,1\ 10^{-10}$	$7,9\ 10^{-11}$	$6,6\ 10^{-11}$
		S	0,005	$5,3\ 10^{-10}$	$5,0\ 10^{-4}$	$3,6\ 10^{-10}$	$1,7\ 10^{-10}$	$1,2\ 10^{-10}$	$8,3\ 10^{-11}$	$6,9\ 10^{-11}$
Am-246m	0,417 h	F	0,005	$1,3\ 10^{-10}$	$5,0\ 10^{-4}$	$8,9\ 10^{-11}$	$4,2\ 10^{-11}$	$2,6\ 10^{-11}$	$1,6\ 10^{-11}$	$1,4\ 10^{-11}$
		M	0,005	$1,9\ 10^{-10}$	$5,0\ 10^{-4}$	$1,4\ 10^{-10}$	$6,1\ 10^{-11}$	$4,0\ 10^{-11}$	$2,6\ 10^{-11}$	$2.2\ 10^{-11}$
		S	0,005	$2,0\ 10^{-10}$	$5,0\ 10^{-4}$	$1,4\ 10^{-10}$	$6,4\ 10^{-11}$	$4,1\ 10^{-11}$	$2,7\ 10^{-11}$	$2,3\ 10^{-11}$
Curium										
Cm-238	2,40 h	F	0,005	$7,7\ 10^{-9}$	$5,0\ 10^{-4}$	$5,4\ 10^{-9}$	$2,6\ 10^{-9}$	$1,8\ 10^{-9}$	$9,2\ 10^{-10}$	$7,3\ 10^{-10}$
		M	0,005	$2,1\ 10^{-8}$	$5,0\ 10^{-4}$	$1,5\ 10^{-8}$	$7,9\ 10^{-9}$	$5,9\ 10^{-9}$	$5,6\ 10^{-9}$	$4,5\ 10^{-9}$
		S	0,005	$2,2\ 10^{-8}$	$5,0\ 10^{-4}$	$1,6\ 10^{-8}$	$8,6\ 10^{-9}$	$6,4\ 10^{-9}$	$6,1\ 10^{-9}$	$4,9\ 10^{-9}$
Cm-240	27,0 d	F	0,005	$8,3\ 10^{-6}$	$5,0\ 10^{-4}$	$6,3\ 10^{-6}$	$3,2\ 10^{-6}$	$2,0\ 10^{-6}$	$1,5\ 10^{-6}$	$1,3\ 10^{-6}$
		M	0,005	$1,2\ 10^{-5}$	$5,0\ 10^{-5}$	$9,1\ 10^{-6}$	$5,8\ 10^{-6}$	$4,2\ 10^{-6}$	$3,8\ 10^{-6}$	$3,2\ 10^{-6}$
		S	0,005	$1,3\ 10^{-5}$	$5,0\ 10^{-8}$	$9,9\ 10^{-6}$	$6,4\ 10^{-4}$	$4,6\ 10^{-6}$	$4,3\ 10^{-6}$	$3,5\ 10^{-6}$
Cm-241	32,8 d	F	0,005	$1,1\ 10^{-7}$	$5,0\ 10^{-4}$	$8,9\ 10^{-8}$	$4,9\ 10^{-8}$	$3,5\ 10^{-8}$	$2,8\ 10^{-8}$	$2,7\ 10^{-8}$
		M	0,005	$1,3\ 10^{-7}$	$5,0\ 10^{-4}$	$1,0\ 10^{-7}$	$6,6\ 10^{-8}$	$4,8\ 10^{-8}$	$4,4\ 10^{-8}$	$3,7\ 10^{-8}$
		S	0,005	$1,4\ 10^{-7}$	$5,0\ 10^{-4}$	$1,1\ 10^{-7}$	$6,9\ 10^{-8}$	$4,9\ 10^{-8}$	$4,5\ 10^{-8}$	$3,7\ 10^{-8}$
Cm-242	163 d	F	0,005	$2,7\ 10^{-5}$	$5,0\ 10^{-4}$	$2,1\ 10^{-5}$	$1,0\ 10^{-5}$	$6,1\ 10^{-6}$	$4,0\ 10^{-6}$	$3,3\ 10^{-6}$
		M	0,005	$2,2\ 10^{-5}$	$5,0\ 10^{-4}$	$1,8\ 10^{-5}$	$1,1\ 10^{-5}$	$7,3\ 10^{-6}$	$6,4\ 10^{-6}$	$5,2\ 10^{-6}$
		S	0,005	$2,4\ 10^{-5}$	$5,0\ 10^{-4}$	$1,9\ 10^{-5}$	$1,2\ 10^{-5}$	$8,2\ 10^{-6}$	$7,3\ 10^{-6}$	$5,9\ 10^{-6}$
Cm-243	28,5 a	F	0,005	$1,6\ 10^{-4}$	$5,0\ 10^{-4}$	$1,5\ 10^{-4}$	$9,5\ 10^{-5}$	$7,3\ 10^{-5}$	$6,5\ 10^{-5}$	$6,9\ 10^{-5}$
		M	0,005	$6,7\ 10^{-5}$	$5,0\ 10^{-4}$	$6,0\ 10^{-5}$	$4,2\ 10^{-5}$	$3,0\ 10^{-5}$	$3,0\ 10^{-5}$	$1,5\ 10^{-5}$
		S	0,005	$4,6\ 10^{-5}$	$5,0\ 10^{-4}$	$4,0\ 10^{-5}$	$2,6\ 10^{-5}$	$1,8\ 10^{-5}$	$1,6\ 10^{-5}$	$1,5\ 10^{-5}$

Cm-244	18,1 a	F	0,005	1,5 10^-4^	5,0 10^-4^	1,5 10^-4^	5,0 10^-5^	6,1 10^-5^	5,3 10^-5^	5,7 10^-5^
		M	0,005	6,2 10^-5^	5,0 10^-4^	5,7 10^-5^	3,7 10^-5^	2,7 10^-5^	2,6 10^-5^	2,7 10^-5^
		S	0,005	4,4 10^-5^	5,0 10^-4^	3,8 10^-5^	2,5 10^-5^	1,7 10^-5^	1,5 10^-5^	1,3 10^-5^
Cm-245	F	8,50 10^4^ a	0,005	1,9 10^-4^	5,0 10^-4^	1,8 10^-4^	1,2 10^-4^	1,0 10^-4^	9,4 10^-5^	9,9 10^-5^
		M	0,005	7,3 10^-5^	5,0 10^-4^	6,9 10^-5^	5,1 10^-5^	4,1 10^-5^	4,1 10^-5^	4,2 10^-5^
		S	0,005	4,5 10^-5^	5,0 10^-4^	4,0 10^-5^	2,7 10^-5^	1,9 10^-5^	1,7 10^-5^	1,6 10^-5^
Cm-246	4,73 10^3^ a	F	0,005	1,9 10^-4^	5,0 10^-4^	1,8 10^-4^	1,2 10^-4^	1,2 10^-4^	9,4 10^-4^	9,8 10^-5^
		M	0,005	7,3 10^-5^	5,0 10^-4^	6,9 10^-5^	5,1 10^-5^	4,1 10^-5^	4,1 10^-5^	4,2 10^-5^
		S	0,005	4,6 10^-5^	5,0 10^-4^	4,0 10^-5^	2,7 10^-5^	1,9 10^-5^	1,7 10^-5^	1,6 10^-5^
Cm-247	1,56 10^7^ a	F	0,005	1,7 10^-4^	5,0 10^-4^	1,6 10^-4^	1,1 10^-4^	9,4 10^-5^	8,6 10^-5^	9,0 10^-5^
		M	0,005	6,7 10^-5^	5,0 10^-4^	6,3 10^-5^	4,7 10^-5^	3,7 10^-5^	3,7 10^-5^	3,9 10^-5^
		S	0,005	4,1 10^-5^	5,0 10^-4^	3,6 10^-5^	2,4 10^-5^	1,7 10^-5^	1,5 10^-5^	1,4 10^-5^
Cm-248	3,39 10^5^ a	F	0,005	6,8 10^-4^	5,0 10^-4^	6,5 10^-4^	4,5 10^-4^	3,7 10^-4^	3,4 10^-4^	3,6 10^-4^
		M	0,005	2,5 10^-4^	5,0 10^-4^	2,4 10^-4^	1,8 10^-4^	1,4 10^-4^	1,4 10^-4^	1,5 10^-4^
		S	0,005	1,4 10^-4^	5,0 10^-4^	1,2 10^-4^	8,2 10^-5^	5,6 10^-5^	5,0 10^-5^	4,8 10^-5^
Cm-249	1,07 h	F	0,005	1,8 10^-10^	5,0 10^-4^	9,8 10^-11^	5,9 10^-11^	4,6 10^-11^	4,0 10^-11^	4,0 10^-11^
		M	0,005	2,4 10^-10^	5,0 10^-4^	1,6 10^-10^	8,2 10^-11^	5,8 10^-11^	3,7 10^-11^	3,3 10^-11^
		S	0,005	2,4 10^-10^	5,0 10^-4^	1,6 10^-10^	7,8 10^-11^	5,3 10^-11^	3,9 10^-11^	3,3 10^-11^
Cm-250	6,90 10^3^ a	F	0,005	3,9 10^-3^	5,0 10^-4^	3,7 10^-3^	2,6 10^-3^	2,1 10^-3^	2,0 10^-3^	2,1 10^-3^
		M	0,005	1,4 10^-3^	5,0 10^-4^	1,3 10^-3^	9,9 10^-4^	7,9 10^-4^	7,9 10^-4^	8,4 10^-4^
		S	0,005	7,2 10^-4^	5,0 10^-4^	6,5 10^-4^	4,4 10^-4^	3,0 10^-4^	2,7 10^-4^	2,6 10^-4^

Berkelium

Bk-245	4,94 d	M	0,005	8,8 10^{-9}	5,0 10^{-4}	6,6 10^{-9}	4,0 10^{-9}	2,9 10^{-9}	2,6 10^{-9}	2,1 10^{-9}
Bk-246	1,83 d	M	0,005	2,1 10^{-9}	5,0 10^{-4}	1,7 10^{-9}	9,3 10^{-10}	6,0 10^{-10}	4,0 10^{-10}	3,3 10^{-10}
Bk-247	1,38 10^{3} a	M	0,005	1,5 10^{-4}	5,0 10^{-4}	1,5 10^{-4}	1,1 10^{-4}	7,9 10^{-5}	7,2 10^{-5}	6,9 10^{-5}
Bk-249	320 d	M	0,005	3,3 10^{-7}	5,0 10^{-4}	3,3 10^{-7}	2,4 10^{-7}	1,8 10^{-7}	1,6 10^{-7}	1,6 10^{-7}
Bk-250	3,22 h	M	0,005	3,4 10^{-9}	5,0 10^{-4}	3,1 10^{-9}	2,0 10^{-9}	1,3 10^{-9}	1,1 10^{-9}	1,0 10^{-9}
Californium										
Cf-244	0,323 h	M	0,005	7,6 10^{-8}	5,0 10^{-4}	5,4 10^{-8}	2,8 10^{-8}	2,0 10^{-8}	1,6 10^{-8}	1,4 10^{-8}
Cf-246	1,49 d	M	0,005	1,7 10^{-6}	5,0 10^{-4}	1,3 10^{-6}	8,3 10^{-7}	6,1 10^{-7}	5,7 10^{-7}	4,5 10^{-7}
Cf-248	334 d	M	0,005	3,8 10^{-5}	5,0 10^{-4}	3,2 10^{-5}	2,1 10^{-5}	1,4 10^{-5}	1,0 10^{-5}	8,8 10^{-6}
Cf-249	350 10^{2} a	M	0,005	1,6 10^{-4}	5,0 10^{-4}	1,5 10^{-4}	1,1 10^{-4}	8,0 10^{-5}	7,2 10^{-5}	7,0 10^{-5}
Cf-250	13,1 a	M	0,005	1,1 10^{-4}	5,0 10^{-4}	9,8 10^{-5}	6,6 10^{-5}	4,2 10^{-5}	3,5 10^{-5}	3,4 10^{-5}
Cf-251	8,98 10^{2} a	M	0,005	1,6 10^{-4}	5,0 10^{-4}	1,5 10^{-4}	1,1 10^{-4}	8,1 10^{-5}	7,3 10^{-5}	7,1 10^{-5}
Cf-252	2,64 a	M	0,005	9,7 10^{-5}	5,0 10^{-4}	8,7 10^{-5}	5,6 10^{-5}	3,2 10^{-5}	2,2 10^{-5}	2,0 10^{-5}
Cf-253	17,8 d	M	0,005	5,4 10^{-6}	5,0 10^{-4}	4,2 10^{-6}	2,6 10^{-6}	1,9 10^{-6}	1,7 10^{-6}	1,3 10^{-6}
Cf-254	60,5 d	M	0,005	2,5 10^{-4}	5,0 10^{-4}	1,9 10^{-4}	1,1 10^{-4}	7,0 10^{-5}	4,8 10^{-5}	4,1 10^{-5}
Einsteinium										
Es-250	2,10 h	M	0,005	2,0 10^{-9}	5,0 10^{-4}	1,8 10^{-9}	1,2 10^{-9}	7,8 10^{-10}	6,4 10^{-10}	6,3 10^{-10}
Es-251	1,38 d	M	0,005	7,9 10^{-9}	5,0 10^{-4}	6,0 10^{-9}	3,9 10^{-9}	2,8 10^{-9}	2,6 10^{-9}	2,1 10^{-9}
Es-253	20,5 d	M	0,005	1,1 10^{-5}	5,0 10^{-4}	8,0 10^{-6}	5,1 10^{-6}	3,7 10^{-6}	3,4 10^{-6}	2,7 10^{-6}
Es-254	276 d	M	0,005	3,7 10^{-5}	5,0 10^{-4}	3,1 10^{-5}	2,0 10^{-5}	1,3 10^{-5}	1,0 10^{-5}	8,6 10^{-6}
Es-254m	1,64 d	M	0,005	1,7 10^{-6}	5,0 10^{-4}	1,3 10^{-6}	8,4 10^{-7}	6,3 10^{-7}	5,9 10^{-7}	4,7 10^{-7}
Fermium										
Fm-252	22,7 h	M	0,005	1,2 10^{-6}	5,0 10^{-7}	9,0 10^{-7}	5,8 10^{-7}	4,3 10^{-7}	4,0 10^{-7}	3,2 10^{-7}

Fm-253	3,00 d	M	0,005	1,5 10-6	5,0 10-4	1,2 10-6	7,3 10-7	5,4 10-7	5,0 10-7	4,0 10-7
Fm-254	3,24 h	M	0,005	3,2 10-7	5,0 10-4	2,3 10-7	1,3 10-7	9,8 10-8	7,6 10-8	6,1 10-8
Fm-255	20,1 h	M	0,005	1,2 10-6	5,0 10-4	7,3 10-7	4,7 10-7	3,5 10-7	3,4 10-7	2,7 10-7
Fm-257	101 d	M	0,005	3,3 10-5	5,0 10-5	2,6 10-5	1,6 10-5	1,1 10-5	8,8 10-6	7,1 10-6
Mendelevium										
Md-257	5,20 h	M	0,005	1,0 10-7	5,0 10-4	8,2 10-8	5,1 10-8	3,6 10-8	3,1 10-8	2,5 10-8
Md-258	55,0 d	M	0,005	2,4 10-5	5,0 10-4	1,9 10-5	1,2 10-5	8,6 10-6	7,3 10-6	5,9 10-6

TABLE (C.1)

Effective dose coefficients (Sv Bq-1)

Nuclide	Physical half-life	Inhalation				Ingestion	
		Type	f1	h(g)1[illegible]m	h(g)5[illegible]m	f1	h(g)
Hydrogen							
Tritiated water	12,3 a	See Table (C.2) for inhalation doses				1,000	1,8 10-11
OBT	12,3 a	See Table (C.2) for inhalation doses				1,000	4,2 10-11
Beryllium							
Be-7	53,3 d	M	0,005	4,8 10-11	4,3 10-11	0,005	2,8 10-11
		S	0,005	5,2 10-11	4,6 10-11		
Be-10	1,60 106 a	M	0,005	9,1 10-9	6,7 10-9	0,005	1,1 10-9
		S	0,005	3,2 10-8	1,9 10-8		
Carbon							
C-11	0,340 h	See Table (C.2) for inhalation doses				1,000	2,4 10-11

C-14	$5,73\ 10^{3}$ a	See Table (C.2) for inhalation doses				1,000	$5,8\ 10^{-10}$
Fluorine							
F-18	1,83 h	F	1,000	$3,0\ 10^{-11}$	$5,4\ 10^{-11}$	1,000	$4,9\ 10^{-11}$
		M	1,000	$5,7\ 10^{-11}$	$8,9\ 10^{-11}$		
		S	1,000	$6,0\ 10^{-11}$	$9,3\ 10^{-11}$		
Sodium							
Na-22	2,60 a	F	1,000	$1,3\ 10^{-9}$	$2,0\ 10^{-9}$	1,000	$3,2\ 10^{-9}$
Na-24	15,0 h	F	1,000	$2,9\ 10^{-10}$	$5,3\ 10^{-10}$	1,000	$4,3\ 10^{-10}$
Magnesium							
Mg-28	20,9 h	F	0,500	$6,4\ 10^{-10}$	$1,1\ 10^{-9}$	0,500	$2,2\ 10^{-9}$
		M	0,500	$1,2\ 10^{-9}$	$1,7\ 10^{-9}$		
Aluminium							
A1-26	$7,16\ 10^{5}$ a	F	0,010	$1,1\ 10^{-8}$	$1,4\ 10^{-8}$	0,010	$3,5\ 10^{-9}$
		M	0,010	$1,8\ 10^{-8}$	$1,2\ 10^{-8}$		
Silicon							
Si-31	2,62 h	F	0,010	$2,9\ 10^{-11}$	$5,1\ 10^{-11}$	0,010	$1,6\ 10^{-10}$
		M	0,010	$7,5\ 10^{-11}$	$1,1\ 10^{-10}$		
		S	0,010	$8,0\ 10^{-11}$	$1,1\ 10^{-10}$		
Si-32	$4,50\ 10^{2}$ a	F	0,010	$3,2\ 10^{-9}$	$3,7\ 10^{-9}$	0,010	$1,6\ 10^{-10}$
		M	0,010	$1,5\ 10^{-8}$	$9,6\ 10^{-9}$		
		S	0,010	$1,1\ 10^{-7}$	$5,5\ 10^{-8}$		
Phosphorus							
P-32	14,3 d	F	0,80	$8,0\ 10^{-10}$	$1,1\ 10^{-9}$	0,80	$2,4\ 10^{-9}$

			0			0	
		M	0,800	3,2 10^{-9}	2,9 10^{-9}		
P-33	25,4 d	F	0,800	9,6 10^{-11}	1,4 10^{-10}	0,800	2,4 10^{-10}
		M	0,800	1,4 10^{-9}	1,3 10^{-9}		
Sulphur							
S-35	87,4 d	F	0,800	5,3 10^{-11}	8,0 10^{-10}	0,800	1,4 10^{-10}
(inorganic)		M	0,800	1,3 10^{-9}	1,1 10^{-9}	0,100	1,9 10^{-10}
S-35	87,4 d	See Table (C.2) for inhalation doses				1,000	7,7 10^{-10}
(organic)							
Chlorine							
Cl-36	3,01 10^{5} a	F	1,000	3,4 10^{-10}	4,9 10^{-10}	1,000	9,3 10^{-10}
		M	1,000	6,9 10^{-9}	5,1 10^{-9}		
Cl-38	0,620 h	F	1,000	2,7 10^{-11}	4,6 10^{-11}	1,000	1,2 10^{-10}
		M	1,000	4,7 10^{-11}	7,3 10^{-11}		
Cl-39	0,927 h	F	1,000	2,7 10^{-11}	4,8 10^{-11}	1,000	8,5 10^{-11}
		M	1,000	4,8 10^{-11}	7,6 10^{-11}		
Potassium							
K-40	1,28 10^{9} a	F	1,000	2,1 10^{-9}	3,0 10^{-9}	1,000	6,2 10^{-9}
K-42	12,4 h	F	1,000	1,3 10^{-10}	2,0 10^{-10}	1,000	4,3 10^{-10}
K-43	22,6 h	F	1,000	1,5 10^{-10}	2,6 10^{-10}	1,000	2,5 10^{-10}
K-44	0,369 h	F	1,000	2,1 10^{-11}	3,7 10^{-11}	1,000	8,4 10^{-11}
K-45	0,333 h	F	1,00	1,6 10^{-11}	2,8 10^{-11}	1,00	5,4 10^{-11}

			0			0	
Calcium							
Ca-41	1,40 10^{5} a	M	0,300	1,7 10^{-10}	1,9 10^{-10}	0,300	2,9 10^{-10}
Ca-45	163 d	M	0,300	2,7 10^{-9}	2,3 10^{-9}	0,300	7,6 10^{-10}
Ca-47	4,53 d	M	0,300	1,8 10^{-9}	2,1 10^{-9}	0,300	1,6 10^{-9}
Scandium							
Sc-43	3,89 h	S	1,0 10^{-4}	1,2 10^{-10}	1,8 10^{-10}	1,0 10^{-4}	1,9 10^{-10}
Sc-44	3,93 h	S	1,0 10^{-4}	1,9 10^{-10}	3,0 10^{-10}	1,0 10^{-4}	3,5 10^{-10}
Sc-44m	2,44 d	S	1,0 10^{-4}	1,5 10^{-9}	2,0 10^{-9}	1,0 10^{-4}	2,4 10^{-9}
Sc-46	83,8 d	S	1,0 10^{-4}	6,4 10^{-9}	4,8 10^{-9}	1,0 10^{-4}	1,5 10^{-9}
Sc-47	3,35 d	S	1,0 10^{-4}	7,0 10^{-10}	7,3 10^{-10}	1,0 10^{-4}	5,4 10^{-10}
Sc-48	1,82 d	S	1,0 10^{-4}	1,1 10^{-9}	1,6 10^{-9}	1,0 10^{-4}	1,7 10^{-9}
Sc-49	0,956 h	S	1,0 10^{-4}	4,1 10^{-11}	6,1 10^{-11}	1,0 10^{-4}	8,2 10^{-11}
Titanium							
Ti-44	47,3 a	F	0,010	6,1 10^{-8}	7,2 10^{-8}	0,010	5,8 10^{-9}
		M	0,010	4,0 10^{-8}	2,7 10^{-8}		
		S	0,010	1,2 10^{-7}	6,2 10^{-8}		
Ti-45	3,08 h	F	0,010	4,6 10^{-11}	8,3 10^{-11}	0,010	1,5 10^{-10}
		M	0,010	9,1 10^{-11}	1,4 10^{-10}		
		S	0,010	9,6 10^{-11}	1,5 10^{-10}		

Vanadium

V-47	0,543 h	F	0,010	1,9 10^{-11}	3,2 10^{-11}	0,010	6,3 10^{-11}
		M	0,010	3,1 10^{-11}	5,0 10^{-11}		
V-48	16,2 d	F	0,010	1,1 10^{-9}	1,7 10^{-9}	0,010	2,0 10^{-9}
		M	0,010	2,3 10^{-9}	2,7 10^{-9}		
V-49	330 d	F	0,010	2,1 10^{-11}	2,6 10^{-11}	0,010	1,8 10^{-11}
		M	0,010	3,2 10^{-11}	2,3 10^{-11}		

Chromium

Cr-48	23,0 h	F	0,100	1,0 10^{-10}	1,7 10^{-10}	0,100	2,0 10^{-10}
		M	0,100	2,0 -10^{-10}	2,3 10^{-10}	0,010	2,0 10^{-10}
		S	0,100	2,2 10^{-10}	2,5 10^{-10}		
Cr-49	0,702 h	F	0,100	2,0 10^{-11}	3,5 10^{-11}	0,100	6,1 10^{-11}
		M	0,100	3,5 10^{-11}	5,6 10^{-11}	0,010	6,1 10^{-11}
		S	0,100	3,7 10^{-11}	5,9 10^{-11}		
Cr-51	27,7 d	F	0,100	2,1 10^{-11}	3,0 10^{-11}	0,100	3,8 110^{-11}
		M	0,100	3,1 10^{-11}	3,4 10^{-11}	0,010	3,7 10^{-11}
		S	0,100	3,6 10^{-11}	3,6 10^{-11}		

Manganese

Mn-51	0,770 h	F	0,100	2,4 10^{-11}	4,2 10^{-11}	0,100	9,3 10^{-11}
		M	0,100	4,3 10^{-11}	6,8 10^{-11}		
Mn-52	5,59 d	F	0,100	9,9 10^{-10}	1,6 10^{-9}	0,100	1,8 10^{-9}

		M	0,100	1,4 10^{-9}	1,8 10^{-9}		
Mn-52m	0,352 h	F	0,100	2,0 10^{-11}	3,5 10^{-11}	0,100	6,9 10^{-11}
		M	0,100	3,0 10^{-11}	5,0 10^{-11}		
Mn-53	3,70 10^{6} a	F	0,100	2,9 10^{-11}	3,6 10^{-11}	0,100	3,0 10^{-11}
		M	0,100	5,2 10^{-11}	3,6 10^{-11}		
Mn-54	312 d	F	0,100	8,7 10^{-10}	1,1 10^{-9}	0,100	7,1 10^{-10}
		M	0,100	1,5 10^{-9}	1,2 10^{-9}		
Mn-56	2,58 h	F	0,100	6,9 10^{-11}	1,2 10^{-10}	0,100	2,5 10^{-10}
		M	0,100	1,3 10^{-10}	2,0 10^{-10}		
Iron							
Fe-52	8,28 h	F	0,100	4,1 10^{-10}	6,9 10^{-10}	0,100	1,4 10^{-9}
		M	0,100	6,3 10^{-10}	9,5 10^{-10}		
Fe-55	2,70 a	F	0,100	7,7 10^{-10}	9,2 10^{-10}	0,100	3,3 10^{-10}
		M	0,100	3,7 10^{-10}	3,3 10^{-10}		
Fe-59	44,5 d	F	0,100	2,2 10^{-9}	3,0 10^{-9}	0,100	1,8 10^{-9}
		M	0,100	3,5 10^{-9}	3,2 10^{-9}		
Fe-60	1,00 10^{5} a	F	0,100	2,8 10^{-7}	3,3 10^{-7}	0,100	1,1 10^{-7}
		M	0,100	1,3 10^{-7}	1,2 10^{-7}		
Cobalt							
Co-55	17,5 h	M	0,100	5,1 10^{-10}	7,8 10^{-10}	0,100	1,0 10^{-9}
		S	0,05	5,5 10^{-10}	8,3 10^{-10}	0,05	1,1 10^{-9}

			0			0	
Co-56	78,7 d	M	0,100	4,6 10^{-9}	4,0 10^{-9}	0,100	2,5 10^{-9}
		S	0,050	6,3 10^{-9}	4,9 10^{-9}	0,050	2,3 10^{-9}
Co-57	271 d	M	0,100	5,2 10^{-10}	3,9 10^{-10}	0,100	2,1 10^{-10}
		S	0,050	9,4 10^{-10}	6,0 10^{-10}	0,050	1,9 10^{-10}
Co-58	70,8 d	M	0,100	1,5 10^{-9}	1,4 10^{-9}	0,100	7,4 10^{-10}
		S	0,050	2,0 10^{-9}	1,7 10^{-9}	0,050	7,0 10^{-10}
Co-58m	9,15 h	M	0,100	1,3 10^{-11}	1,5 10^{-11}	0,100	2,4 10^{-11}
		S	0,050	1,6 10^{-11}	1,7 10^{-11}	0,050	2,4 10^{-11}
Co-60	5,27 a	M	0,100	9,6 10^{-9}	7,1 10^{-9}	0,100	3,4 10^{-9}
		S	0,050	2,9 10^{-8}	1,7 10^{-8}	0,050	2,5 10^{-9}
Co-60m	0,174 h	M	0,100	1,1 10^{-12}	1,2 10^{-12}	0,100	1,7 10^{-12}
		S	0,050	1,3 10^{-12}	1,2 10^{-12}	0,050	1,7 10^{-12}
Co-61	1,65 h	M	0,100	4,8 10^{-11}	7,1 10^{-11}	0,100	7,4 10^{-11}
		S	0,050	5,1 10^{-11}	7,5 10^{-11}	0,050	7,4 10^{-11}
Co-62m	0,232 h	M	0,100	2,1 10^{-11}	3,6 10^{-11}	0,100	4,7 10^{-11}
		S	0,050	2,2 10^{-11}	3,7 10^{-11}	0,050	4,7 10^{-11}
Nickel							
Ni-56	6,10 d	F	0,050	5,1 10^{-10}	7,9 10^{-10}	0,050	8,6 10^{-10}
		M	0,050	8,6 10^{-10}	9,6 10^{-10}		
Ni-57	1,50 d	F	0,050	2,8 10^{-10}	5,0 10^{-10}	0,050	8,7 10^{-10}

		M	0,050	5,1 10^{-10}	7,6 10^{-10}		
Ni-59	7,50 10^{4} a	F	0,050	1,8 10^{-10}	2,2 10^{-10}	0,050	6,3 10^{-11}
		M	0,050	1,3 10^{-10}	9,4 10^{-11}		
Ni-63	9,60 a	F	0,050	4,4 10^{-10}	5,2 10^{-10}	0,050	1,5 10^{-10}
		M	0,050	4,4 10^{-10}	3,1 10^{-10}		
Ni-65	2,52 h	F	0,050	4,4 10^{-11}	7,5 10^{-11}	0,050	1,8 10^{-10}
		M	0,050	8,7 10^{-11}	1,3 10^{-10}		
Ni-66	2,27 d	F	0,050	4,5 10^{-10}	7,6 10^{-10}	0,050	3,0 10^{-9}
		M	0,050	1,6 10^{-9}	1,9 10^{-9}		

Copper

Cu-60	0,387 h	F	0,500	2,4 10^{-11}	4,4 10^{-11}	0,500	7,0 10^{-11}
		M	0,500	3,5 10^{-11}	6,0 10^{-11}		
		S	0,500	3,6 10^{-11}	6,2 10^{-11}		
Cu-61	3,41 h	F	0,500	4,0 10^{-11}	7,3 10^{-11}	0,500	1,2 10^{-10}
		M	0,500	7,6 10^{-11}	1,2 10^{-10}		
		S	0,500	8,0 10^{-11}	1,2 10^{-10}		
Cu-64	12,7 h	F	0,500	3,8 10^{-11}	6,8 10^{-11}	0,500	1,2 10^{-10}
		M	0,500	1,1 10^{-10}	1,5 10^{-10}		
		S	0,500	1,2 10^{-10}	1,5 10^{-10}		
Cu-67	2,58 d	F	0,500	1,1 10^{-10}	1,8 10^{-10}	0,500	3,4 10^{-10}
		M	0,500	5,2 10^{-10}	5,3 10^{-10}		

		S	0,500	5,8 10^{-10}	5,8 10^{-10}		
Zinc							
Zn-62	9,26 h	S	0,500	4,7 10^{-10}	6,6 10^{-10}	0,500	9,4 10^{-10}
Zn-63	0,635 h	S	0,500	3,8 10^{-11}	6,1 10^{-11}	0,500	7,9 10^{-11}
Zn-65	244 d	S	0,500	2,9 10^{-9}	2,8 10^{-9}	0,500	3,9 10^{-9}
Zn-69	0,950 h	S	0,500	2,8 10^{-11}	4,3 10^{-11}	0,500	3,1 10^{-11}
Zn-69m	13,8 h	S	0,500	2,6 10^{10}	3,3 10^{-10}	0,500	3,3 10^{-10}
Zn-71m	3,92 h	S	0,500	1,6 10^{-10}	2,4 10^{-10}	0,500	2,4 10^{-10}
Zn-72	1,94 d	S	0,500	1,2 10^{-9}	1,5 10^{-9}	0,500	1,4 10^{-9}
Gallium							
Ga-65	0,253 h	F	0,001	1,2 10^{-11}	2,0 10^{-11}	0,001	3,7 10^{-11}
		M	0,001	1,8 10^{-11}	2,9 10^{-11}		
Ga-66	9,40 h	F	0,001	2,7 10^{-10}	4,7 10^{-10}	0,001	1,2 10^{-9}
		M	0,001	4,6 10^{-10}	7,1 10^{-10}		
Ga-67	3,26 d	F	0,001	6,8 10^{-11}	1,1 10^{-10}	0,001	1,9 10^{-10}
		M	0,001	2,3 10^{-10}	2,8 10^{-10}		
Ga-68	1,13 h	F	0,001	2,8 10^{-11}	4,9 10^{-11}	0,001	1,0 10^{-10}
		M	0,001	5,1 10^{-11}	8,1 10^{-11}		
Ga-70	0,353 h	F	0,001	9,3 10^{-12}	1,6 10^{-11}	0,001	3,1 10^{-11}
		M	0,001	1,6 10^{-11}	2,6 10^{-11}		

Ga-72	14,1 h	F	0,001	$3,1\ 10^{-10}$	$5,6\ 10^{-10}$	0,001	$1,1\ 10^{-9}$
		M	0,001	$5,5\ 10^{-10}$	$8,4\ 10^{-10}$		
Ga-73	4,91 h	F	0,001	$5,8\ 10^{-11}$	$1,0\ 10^{-10}$	0,001	$2,6\ 10^{-10}$
		M	0,001	$1,5\ 10^{-10}$	$2,0\ 10^{-10}$		

Germanium

Ge-66	2,27 h	F	1,000	$5,7\ 10^{-11}$	$9,9\ 10^{-11}$	1,000	$1,0\ 10^{-10}$
		M	1,000	$9,2\ 10^{-11}$	$1,3\ 10^{-10}$		
Ge-67	0,312 h	F	1,000	$1,6\ 10^{-11}$	$2,8\ 10^{-11}$	1,000	$6,5\ 10^{-11}$
		M	1,000	$2,6\ 10^{-11}$	$4,2\ 10^{-11}$		
Ge-68	288 d	F	1,000	$5,4\ 10^{-10}$	$8,3\ 10^{-10}$	1,000	$1,3\ 10^{-4}$
		M	1,000	$1,3\ 10^{-8}$	$7,9\ 10^{-9}$		
Ge-69	1,63 d	F	1,000	$1,4\ 10^{-10}$	$2,5\ 10^{10}$	1,000	$2,4\ 10^{-10}$
		M	1,000	$2,9\ 10^{-10}$	$3,7\ 10^{-10}$		
Ge-71	11.8 d	F	1,000	$5,0\ 10^{-12}$	$7.8\ 10^{-12}$	1,000	$1,2\ 10^{-11}$
		M	1,000	$1,0\ 10^{-11}$	$1,1\ 10^{-11}$		
Ge-75	1,38 h	F	1,000	$1,6\ 10^{-11}$	$2,7\ 10^{-11}$	1,000	$4,6\ 10^{-11}$
		M	1,000	$3,7\ 10^{-11}$	$5,4\ 10^{-11}$		
Ge-77	11,3 h	F	1,000	$1,5\ 10^{-10}$	$2,5\ 10^{-10}$	1,000	$3,3\ 10^{-10}$
		M	1,000	$3,6\ 10^{-10}$	$4,5\ 10^{-10}$		
Ge-78	1,45 h	F	1,000	$4,8\ 10^{-11}$	$8,1\ 10^{-11}$	1,000	$1,2\ 10^{-10}$
		M	1,00	$9,7\ 10^{-11}$	$1,4\ 10^{-10}$		

			0				
Arsenic							
As-69	0,253 h	M	0,500	2,2 10^{-11}	3,5 10^{-11}	0,500	5,7 10^{-11}
As-70	0,876 h	M	0,500	7,2 10^{-11}	1,2 10^{-10}	0,500	1,3 10^{-10}
As-71	2,70 d	M	0,500	4,0 10^{-10}	5,0 10^{-10}	0,500	4,6 10^{-10}
As-72	1,08 d	M	0,500	9,2 10^{-10}	1,3 10^{-9}	0,500	1,8 10^{-9}
As-73	80,3 d	M	0,500	9,3 10^{-10}	6,5 10^{-10}	0,500	2,6 10^{-10}
As-74	17,8 d	M	0,500	2,1 10^{-9}	1,8 10^{-9}	0,500	1,3 10^{-9}
As-76	1,10 d	M	0,500	7,4 10^{-10}	9,2 10^{-10}	0,500	1,6 10^{-9}
As-77	1,62 d	M	0,500	3,8 10^{-10}	4,2 10^{-10}	0,500	4,0 10^{-10}
As-78	1,51 h	M	0,500	9,2 10^{-11}	1,4 10^{-10}	0,500	2,1 10^{-10}
Selenium							
Se-70	0,683 h	F	0,800	4,5 10^{-11}	8,2 10^{-11}	0,800	1,2 10^{-10}
		M	0,800	7,3 10^{-11}	1,2 10^{-10}	0,050	1,4 10^{-10}
Se-73	7,15 h	F	0,800	8,6 10^{-11}	1,5 10^{-10}	0,800	2,1 10^{-10}
		M	0,800	1,6 10^{-10}	2,4 10^{-10}	0,050	3,9 10^{-10}
Se-73m	0,650 h	F	0,800	9,9 10^{-12}	1,7 10^{-11}	0,800	2,8 10^{-11}
		M	0,800	1,8 10^{-11}	2,7 10^{-11}	0,050	4,1 10^{-11}
Se-75	120 d	F	0,800	1,0 10^{-9}	1,4 10^{-9}	0,800	2,6 10^{-9}
		M	0,800	1,4 10^{-9}	1,7 10^{-9}	0,050	4,1 10^{-10}
Se-79	6,50 10^{4}	F	0,80	1,2 10^{-9}	1,6 10^{-9}	0,80	2,9 10^{-9}

	a		0			0			
		M	0,800	2,9 10^{-9}	3,1 10^{-9}	0,050	3,9 10^{-10}		
Se-81	0,308 h	F	0,800	8,6 10^{-12}	1,4 10^{-11}	0,800	2,7 10^{-11}		
		M	0,800	1,5 10^{-11}	2,4 10^{-11}	0,050	2,7 10^{-11}		
Se-81m	0,954 h	F	0,800	1,7 10^{-11}	3,0 10^{-11}	0,800	5,3 10^{-11}		
		M	0,800	4,7 10^{-11}	6,8 10^{-11}	0,050	5,9 10^{-11}		
Se-83	0,375 h	F	0,800	1,9 10^{-11}	3,4 10^{-11}	0,800	4,7 10^{-11}		
		M	0,800	3,3 10^{-11}	5,3 10^{-11}	0,050	5,1 10^{-11}		
Bromine									
Br-74	0,422 h	F	1,000	2,8 10^{-11}	5,0 10^{-11}	1,000	8,4 10^{-11}		
		M	1,000	4,1 10^{-11}	6,8 10^{-11}				
Br-74m	0,691 h	F	1,000	4,2 10^{-11}	7,5 10^{-11}	1,000	1,4 10^{-10}		
		M	1,000	6,5 10^{-11}	1,1 10^{-10}				
Br-75	1,63 h	F	1,000	3,1 10^{-11}	5,6 10^{-11}	1,000	7,9 10^{-11}		
		M	1,000	5,5 10^{-11}	8,5 10^{-11}				
Br-76	16,2 h	F	1,000	2,6 10^{-10}	4,5 10^{-10}	1,000	4,6 10^{-10}		
		M	1,000	4,2 10^{10}	5,8 10^{-10}				
Br-77	2,33 d	F	1,000	6,7 10^{-11}	1,2 10^{-10}	1,000	9,6 10^{-11}		
		M	1,000	8,7 10^{-11}	1,3 10^{-10}				
Br-80	0,290 h	F	1,000	6,3 10^{-12}	1,1 10^{-11}	1,000	3,1 10^{-11}		
		M	1,000	1,0 10^{11}	1,7 10^{-11}				

Br-80m	4,42 h	F	1,000	$3,5\ 10^{-11}$	$5,8\ 10^{-11}$	1,000	$1,1\ 10^{-10}$
		M	1,000	$7,6\ 10^{-11}$	$1,0\ 10^{-10}$		
Br-82	1,47 d	F	1,000	$3,7\ 10^{-10}$	$6,4\ 10^{-10}$	1,000	$5,4\ 10^{-10}$
		M	1,000	$6,4\ 10^{-10}$	$8,8\ 10^{-10}$		
Br-83	2,39 h	F	1,000	$1,7\ 10^{-11}$	$2,9\ 10^{-11}$	1,000	$4,3\ 10^{-11}$
		M	1,000	$4,8\ 10^{-11}$	$6,7\ 10^{-11}$		
Br-84	0,530 h	F	1,000	$2,3\ 10^{-11}$	$4,0\ 10^{-11}$	1,000	$8,8\ 10^{-11}$
		M	1,000	$3,9\ 10^{-11}$	$6,2\ 10^{-11}$		

Rubidium

Rb-79	0,382 h	F	1,000	$1,7\ 10^{-11}$	$3,0\ 10^{-11}$	1,000	$5,0\ 10^{-11}$
Rb-81	4,58 h	F	1,000	$3,7\ 10^{-11}$	$6,8\ 10^{-11}$	1,000	$5,4\ 10^{-11}$
Rb-81m	0,533 h	F	1,000	$7,3\ 10^{-12}$	$1,3\ 10^{-11}$	1,000	$9,7\ 10^{-12}$
Rb-82m	6,20 h	F	1,000	$1,2\ 10^{-10}$	$2,2\ 10^{-10}$	1,000	$1,3\ 10^{-10}$
Rb-83	86,2 d	F	1,000	$7,1\ 10^{-10}$	$1,0\ 10^{-9}$	1,000	$1,9\ 10^{-9}$
Rb-84	32,8 d	F	1,000	$1,1\ 10^{-9}$	$1,5\ 10^{-9}$	1,000	$2,8\ 10^{-9}$
Rb-86	18,6 d	F	1,000	$9,6\ 10^{-10}$	$1,3\ 10^{-9}$	1,000	$2,8\ 10^{-9}$
Rb-87	$4,70\ 10^{10}$ a	F	1,000	$5,1\ 10^{-10}$	$7,6\ 10^{-10}$	1,000	$1,5\ 10^{-9}$
Rb-88	0,297 h	F	1,000	$1,7\ 10^{-11}$	$2,8\ 10^{-11}$	1,000	$9,0\ 10^{-11}$
Rb-89	0,253 h	F	1,000	$1,4\ 10^{-11}$	$2,5\ 10^{-11}$	1,000	$4,7\ 10^{-11}$

Strontium

Sr-80	1,67 h	F	0,300	$7,6\ 10^{-11}$	$1,3\ 10^{-10}$	0,300	$3,4\ 10^{-10}$
		S	0,010	$1,4\ 10^{-10}$	$2,1\ 10^{-10}$	0,010	$3,5\ 10^{-10}$
Sr-81	0,425 h	F	0,300	$2,2\ 10^{-11}$	$3,9\ 10^{-11}$	0,300	$7,7\ 10^{-11}$
		S	0,010	$3,8\ 10^{-11}$	$6,1\ 10^{-11}$	0,010	$7,8\ 10^{-11}$
Sr-82	25,0 d	F	0,300	$2,2\ 10^{-9}$	$3,3\ 10^{-9}$	0,300	$6,1\ 10^{-9}$
		S	0,010	$1,0\ 10^{-8}$	$7,7\ 10^{-9}$	0,010	$6,0\ 10^{-9}$
Sr-83	1,35 d	F	0,300	$1,7\ 10^{-10}$	$3,0\ 10^{-10}$	0,300	$4,9\ 10^{-10}$
		S	0,010	$3,4\ 10^{-10}$	$4,9\ 10^{-10}$	0,010	$5,8\ 10^{-10}$
Sr-85	64,8 d	F	0,300	$3,9\ 10^{-10}$	$5,6\ 10^{-10}$	0,300	$5,6\ 10^{-10}$
		S	0,010	$7,7\ 10^{-10}$	$6,4\ 10^{-10}$	0,010	$3,3\ 10^{-10}$
Sr-85m	1,16 h	F	0,300	$3,1\ 10^{-12}$	$5,6\ 10^{-12}$	0,300	$6,1\ 10^{-12}$
		S	0,010	$4,5\ 10^{-12}$	$7,4\ 10^{-12}$	0,010	$6,1\ 10^{-12}$
Sr-87m	2,80 h	F	0,300	$1,2\ 10^{-11}$	$2,2\ 10^{-11}$	0,300	$3,0\ 10^{-11}$
		S	0,010	$2,2\ 10^{-11}$	$3,5\ 10^{-11}$	0,010	$3,3\ 10^{-11}$
Sr-89	50,5 d	F	0,300	$1,0\ 10^{-9}$	$1,4\ 10^{-9}$	0,300	$2,6\ 10^{-9}$
		S	0,010	$7,5\ 10^{-9}$	$5,6\ 10^{-9}$	0,010	$2,3\ 10^{-9}$
Sr-90	29,1 a	F	0,300	$2,4\ 10^{-8}$	$3,0\ 10^{-8}$	0,300	$2,8\ 10^{-8}$
		S	0,010	$1,5\ 10^{-7}$	$7,7\ 10^{-8}$	0,010	$2,7\ 10^{-9}$
Sr-91	9,50 h	F	0,300	$1,7\ 10^{-10}$	$2,9\ 10^{-10}$	0,300	$6,5\ 10^{-10}$
		S	0,010	$4,1\ 10^{-10}$	$5,7\ 10^{-10}$	0,010	$7,6\ 10^{-10}$
Sr-92	2,71 h	F	0,30	$1,1\ 10^{-10}$	$1,8\ 10^{-10}$	0,30	$4,3\ 10^{-10}$

			0			0	
		S	0,01 0	2,3 10^{-10}	3,4 10^{-10}	0,01 0	4,9 10^{-10}

Yttrium

Y-86	14,7 h	M	1,0 10^{-4}	4,8 10^{-10}	8,0 10^{-10}	1,0 10^{-4}	9,6 10^{-10}
		S	1,0 10^{-4}	4,9 10^{-10}	8,1 10^{-10}		
Y-86m	0,800 h	M	1,0 10^{-4}	2,9 10^{-11}	4,8 10^{-11}	1,0 10^{-4}	5,6 10^{-11}
		S	1,0 10^{-4}	3,0 10^{-11}	4,9 10^{-11}		
Y-87	3,35 d	M	1,0 10^{-4}	3,8 10^{-10}	5,2 10^{-10}	1,0 10^{-4}	5,5 10^{-10}
		S	1,0 10^{-4}	4,0 10^{-10}	5,3 10^{-10}		
Y-88	107 d	M	1,0 10^{-4}	3,9 10^{-9}	3,3 10^{-9}	1,0 10^{-4}	1,3 10^{-9}
		S	1,0 10^{-4}	4,1 10^{-9}	3,0 10^{-9}		
Y-90	2,67 d	M	1,0 10^{-4}	1,4 10^{-9}	1,6 10^{-9}	1,0 10^{-4}	2,7 10^{-9}
		S	1,0 10^{-4}	1,5 10^{-9}	1,7 10^{-9}		
Y-90m	3,19 h	M	1,0 10^{-4}	9,6 10^{-11}	1,3 10^{-10}	1,0 10^{-4}	1,7 10^{-10}
		S	1,0 10^{-4}	1,0 10^{-10}	1,3 10^{-10}		
Y-91	58,5 d	M	1,0 10^{-4}	6,7 10^{-9}	1,0 10^{-4}	2,4 10^{-9}	
		S	1,0 10^{-4}	8,4 10^{-9}	6,1 10^{-9}		
Y-91m	0,828 h	M	1,0 10^{-4}	1,0 10^{-11}	1,4 10^{-11}	1,0 10^{-4}	1,1 10^{-11}
		S	1,0 10^{-4}	1,1 10^{-11}	1,5 10^{-11}		
Y-92	3,54 h	M	1,0 10^{-4}	1,9 10^{-10}	2,7 10^{-10}	1,0 10^{-4}	4,9 10^{-10}
		S	1,0 10^{-4}	2,0 10^{-10}	2,8 10^{-10}		

Y-93	10,1 h	M	1,0 10^{-4}	4,1 10^{-10}	5,7 10^{-10}	1,0 10^{4}	1,2 10^{-9}
		S	1,0 10^{-4}	4,3 10^{-10}	6,0 10^{-10}		
Y-94	0,318 h	M	1,0 10^{-4}	2,8 10^{-10}	4,4 10^{-11}	1,0 10^{-4}	8,1 10^{-11}
		S	1,0 10^{-4}	2,9 10^{-11}	4,5 10^{-11}		
Y-95	0,178 h	M	1,0 10^{-4}	1,6 10^{-11}	2,5 10^{-11}	1,0 10^{-4}	4,6 10^{-11}
		S	1,0 10^{-4}	1,7 10^{-11}	2,6 10^{-11}		

Zirconium

Zr-86	16,5 h	F	0,002	3,0 10^{-10}	5,2 10^{-10}	0,002	8,6 10^{-10}
		M	0,002	4,3 10^{-10}	6,8 10^{-10}		
		S	0,002	4,5 10^{-10}	7,0 10^{-10}		
Zr-88	83,4 d	F	0,002	3,5 10^{-9}	4,1 10^{-9}	0,002	3,3 10^{-10}
		M	0,002	2,5 10^{-9}	1,7 10^{-9}		
		S	0,002	3,3 10^{-9}	1,8 10^{-9}		
Zr-89	3,27 d	F	0,002	3,1 10^{-10}	5,2 10^{-10}	0,002	7,9 10^{-10}
		M	0,002	5,3 10^{-10}	7,2 10^{-10}		
		S	0,002	5,5 10^{-10}	7,5 10^{-10}		
Zr-93	1,53 10^{6} a	F	0,002	2,5 10^{-8}	2,9 10^{-8}	0,002	2,8 10^{-10}
		M	0,002	9,6 10^{-9}	6,6 10^{-9}		
		S	0,002	3,1 10^{-9}	1,7 10^{-9}		
Zr-95	64,0 d	F	0,002	2,5 10^{-9}	3,0 10^{-9}	0,002	8,8 10^{-10}
		M	0,002	4,5 10^{-9}	3,6 10^{-9}		

		S	0,002	5,5 10^{-9}	4,2 10^{-9}		
Zr-97	16,9 h	F	0,002	4,2 10^{-10}	7,4 10^{-10}	0,002	2,1 10^{-9}
		M	0,002	9,4 10^{-10}	1,3 10^{-9}		
		S	0,002	1,0 10^{-9}	1,4 10^{-9}		
Niobium							
Nb-88	0,238 h	M	0,010	2,9 10^{-11}	4,8 10^{-11}	0,010	6,3 10^{-11}
		S	0,010	3,0 10^{-11}	5,0 10^{-11}		
Nb-89	2,03 h	M	0,010	1,2 10^{-10}	1,8 10^{-10}	0,010	3,0 10^{-10}
		S	0,010	1,3 10^{-10}	1,9 10^{-10}		
Nb-89	1,10 h	M	0,010	7,1 10^{-11}	1,1 10^{-10}	0,010	1,4 10^{-10}
		S	0,010	7,4 10^{-11}	1,2 10^{-10}		
Nb-90	14,6 h	M	0,010	6,6 10^{-10}	1,0 10^{-9}	0,010	1,2 10^{-9}
		S	0,010	6,9 10^{-10}	1,1 10^{-9}		
Nb-93m	13,6 a	M	0,010	4,6 10^{-10}	2,9 10^{-10}	0,010	1,2 10^{-10}
		S	0,010	1,6 10^{-9}	8,6 10^{-10}		
Nb-94	2,03 10^{4} a	M	0,010	1,0 10^{-8}	7,2 10^{-9}	0,010	1,7 10^{-9}
		S	0,010	4,5 10^{-8}	2,5 10^{-8}		
Nb-95	35,1 d	M	0,010	1,4 10^{-9}	1,3 10^{-9}	0,010	5,8 10^{-10}
		S	0,010	1,6 10^{-9}	1,3 10^{-9}		
Nb-95m	3,61 d	M	0,010	7,6 10^{-10}	7,7 10^{-10}	0,010	5,6 10^{-10}
		S	0,01	8,5 10^{-10}	8,5 10^{-10}		

			0				
Nb-96	23,3 h	M	0,010	6,5 10^{-10}	9,7 10^{-10}	0,010	1,1 10^{-9}
		S	0,010	6,8 10^{-9}	1,0 10^{-10}		
Nb-97	1,20 h	M	0,010	4,4 10^{-11}	6,9 10^{-11}	0,010	6,8 10^{-11}
		S	0,010	4,7 10^{-11}	7,2 10^{-11}		
Nb-98	0,858 h	M	0,010	5,9 10^{-11}	9,6 10^{-11}	0,010	1,1 10^{-10}
		S	0,010	6,1 10^{-11}	9,9 10^{-11}		
Molybdenum							
Mo-90	5,67 h	F	0,800	1,7 10^{-10}	2,9 10^{-10}	0,800	3,1 10^{-10}
		S	0,050	3,7 10^{-10}	5,6 10^{-10}	0,050	6,2 10^{-10}
Mo-93	3,50 10^{3} a	F	0,800	1,0 10^{-9}	1,4 10^{-9}	0,800	2,6 10^{-9}
		S	0,050	2,2 10^{-9}	1,2 10^{-9}	0,050	2,0 10^{-10}
Mo-93m	6,85 h	F	0,800	1,0 10^{-10}	1,9 10^{-10}	0,800	1,6 10^{-10}
		S	0,050	1,8 10^{-10}	3,0 10^{-10}	0,050	2,8 10^{-10}
Mo-99	2,75 d	F	0,800	2,3 10^{-10}	3,6 10^{-10}	0,800	7,4 10^{-10}
		S	0,050	9,7 10^{-10}	1,1 10^{-9}	0,050	1,2 10^{-9}
Mo-101	0,244 h	F	0,800	1,5 10^{-11}	2,7 10^{-11}	0,800	4,2 10^{-11}
		S	0,050	2,7 10^{-11}	4,5 10^{-11}	0,050	4,2 10^{-11}
Technetrium							
Tc-93	2,75 h	F	0,800	3,4 10^{-11}	6,2 10^{-11}	0,800	4,9 10^{-11}
		M	0,800	3,6 10^{-11}	6,5 10^{-11}		

Tc-93m	0,725 h	F	0,800	$1,5\ 10^{-11}$	$2,6\ 10^{-11}$	0,800	$2,4\ 10^{-11}$
		M	0,800	$1,7\ 10^{-11}$	$3,1\ 10^{-11}$		
Tc-94	4,88 h	F	0,800	$1,2\ 10^{-10}$	$2,1\ 10^{-10}$	0,800	$1,8\ 10^{-10}$
		M	0,800	$1,3\ 10^{-10}$	$2,2\ 10^{-10}$		
Tc-94m	0,867 h	F	0,800	$4,3\ 10^{-11}$	$6,9\ 10^{-11}$	0,800	$1,1\ 10^{-10}$
		M	0,800	$4,9\ 10^{-11}$	$8,0\ 10^{-11}$		
Tc-95	20,0 h	F	0,800	$1,0\ 10^{-10}$	$1,8\ 10^{-10}$	0,800	$1,6\ 10^{-10}$
		M	0,800	$1,0\ 10^{-10}$	$1,8\ 10^{-10}$		
Tc-95m	61,0 d	F	0,800	$3,1\ 10^{-10}$	$4,8\ 10^{-10}$	0,800	$6,2\ 10^{-10}$
		M	0,800	$8,7\ 10^{-10}$	$8,6\ 10^{-10}$		
Tc-96	4,28 d	F	0,800	$6,0\ 10^{-10}$	$9,8\ 10^{-10}$	0,800	$1,1\ 10^{-9}$
		M	0,800	$7,1\ 10^{-10}$	$1,0\ 10^{-9}$		
Tc-96m	0,858 h	F	0,800	$6,5\ 10^{-12}$	$1,1\ 10^{-11}$	0,800	$1,3\ 10^{-11}$
		M	0,800	$7,7\ 10^{-12}$	$1,1\ 10^{-11}$		
Tc-97	$2,60\ 10^{9}$ a	F	0,800	$4,5\ 10^{-11}$	$7,2\ 10^{-11}$	0,800	$8,3\ 10^{-11}$
		M	0,800	$2,1\ 10^{-10}$	$1,6\ 10^{-10}$		
Tc-97m	87,0 d	F	0,800	$2,8\ 10^{-10}$	$4,0\ 10^{-10}$	0,800	$6,6\ 10^{-10}$
		M	0,800	$3,1\ 10^{-9}$	$2,7\ 10^{-9}$		
Tc-98	$4,20\ 10^{6}$ a	F	0,800	$1,0\ 10^{-9}$	$1,5\ 10^{-9}$	0,800	$2,3\ 10^{-9}$
		M	0,800	$8,1\ 10^{-9}$	$6,1\ 10^{-9}$		
Tc-99	$2,13\ 10^{5}$	F	0,80	$2,9\ 10^{-10}$	$4,0\ 10^{-10}$	0,80	$7,8\ 10^{-10}$

	a		0			0	
		M	0,800	3,9 10^{-9}	3,2 10^{-9}		
Tc-99m	6,02 h	F	0,800	1,2 10^{-11}	2,0 10^{-11}	0,800	2,2 10^{-11}
		M	0,800	1,9 10^{-11}	2,9 10^{-11}		
Tc-101	0,237 h	F	0,800	8,7 10^{-12}	1,5 10^{-11}	0,800	1,9 10^{-11}
		M	0,800	1,3 10^{-11}	2,1 10^{-11}		
Tc-104	0,303 h	F	0,800	2,4 10^{-11}	3,9 10^{-11}	0,800	8,1 10^{-11}
		M	0,800	3,0 10^{-11}	4,8 10^{-11}		
Ruthenium							
Ru-94	0,863 h	F	0,050	2,7 10^{-11}	4,9 10^{-11}	0,050	9,4 10^{-11}
		M	0,050	4,4 10^{-11}	7,2 10^{-11}		
		S	0,050	4,6 10^{-11}	7,4 10^{-11}		
Ru-97	2,90 d	F	0,050	6,7 10^{-11}	1,2 10^{-10}	0,050	1,5 10^{-10}
		M	0,050	1,1 10^{-10}	1,6 10^{-10}		
		S	0,050	1,1 10^{-10}	1,6 10^{-10}		
Ru-103	39,3 d	F	0,050	4,9 10^{-10}	6,8 10^{-10}	0,050	7,3 10^{-10}
		M	0,050	2,3 10^{-9}	1,9 10^{-9}		
		S	0,050	2,8 10^{-9}	2,2 10^{-9}		
Ru-105	4,44 h	F	0,050	7,1 10^{-11}	1,3 10^{-10}	0,050	2,6 10^{-10}
		M	0,050	1,7 10^{-10}	2,4 10^{-10}		
		S	0,050	1,8 10^{-10}	2,5 10^{-10}		
Ru-106	1,01 a	F	0,05	8,0 10^{-9}	9,8 10^{-9}	0,05	7,0 10^{-9}

			0			0	
		M	0,050	2,6 10^{-8}	1,7 10^{-8}		
		S	0,050	6,2 10^{-8}	3,5 10^{-8}		
Rhodium							
Rh-99	16,0 d	F	0,050	3,3 10^{-10}	4,9 10^{-10}	0,050	5,1 10^{-10}
		M	0,050	7,3 10^{-10}	8,2 10^{-10}		
		S	0,050	8,3 10^{-10}	8,9 10^{-10}		
Rh-99m	4,70 h	F	0,050	3,0 10^{-11}	5,7 10^{-11}	0,050	6,6 10^{-11}
		M	0,050	4,1 10^{-11}	7,2 10^{-11}		
		S	0,050	4,3 10^{-11}	7,3 10^{-11}		
Rh-100	20,8 h	F	0,050	2,8 10^{-10}	5,1 10^{-10}	0,050	7,1 10^{-10}
		M	0,050	3,6 10^{-10}	6,2 10^{-10}		
		S	0,050	3,7 10^{-10}	6,3 10^{-10}		
Rh-101	3,20 a	F	0,050	1,4 10^{-9}	1,7 10^{-9}	0,050	5,5 10^{-10}
		M	0,050	2,2 10^{-9}	1,7 10^{-9}		
		S	0,050	5,0 10^{-9}	3,1 10^{-9}		
Rh-101m	4,34 d	F	0,050	1,0 10^{-10}	1,7 10^{-10}	0,050	2,2 10^{-10}
		M	0,050	2,0 10^{-10}	2,5 10^{-10}		
		S	0,050	2,1 10^{-10}	2,7 10^{-10}		
Rh-102	2,90 a	F	0,050	7,3 10^{-9}	8,9 10^{-9}	0,050	2,6 10^{-9}
		M	0,050	6,5 10^{-9}	5,0 10^{-9}		
		S	0,05	1,6 10^{-8}	9,0 10^{-9}		

			0				
Rh-102m	207 d	F	0,050	$1,5\ 10^{-9}$	$1,9\ 10^{-9}$	0,050	$1,2\ 10^{-9}$
		M	0,050	$3,8\ 10^{-9}$	$2,7\ 10^{-9}$		
		S	0,050	$6,7\ 10^{-9}$	$4,2\ 10^{-9}$		
Rh-103m	0,935 h	F	0,050	$8,6\ 10^{-13}$	$1,2\ 10^{-12}$	0,050	$3,8\ 10^{-12}$
		M	0,050	$2,3\ 10^{-12}$	$2,4\ 10^{-12}$		
		S	0,050	$2,5\ 10^{-12}$	$2,5\ 10^{-12}$		
Rh-105	1,47 d	F	0,050	$8,7\ 10^{-11}$	$1,5\ 10^{-10}$	0,050	$3,7\ 10^{-10}$
		M	0,050	$3,1\ 10^{-10}$	$4,1\ 10^{-10}$		
		S	0,050	$3,4\ 10^{-10}$	$4,4\ 10^{-10}$		
Rh-106m	2,20 h	F	0,050	$7,0\ 10^{-11}$	$1,3\ 10^{-10}$	0,050	$1,6\ 10^{-10}$
		M	0,050	$1,1\ 10^{-10}$	$1,8\ 10^{-10}$		
		S	0,050	$1,2\ 10^{-10}$	$1,9\ 10^{-10}$		
Rh-107	0,362 h	F	0,050	$9,6\ 10^{-12}$	$1,6\ 10^{-11}$	0,050	$2,4\ 10^{-11}$
		M	0,050	$1,7\ 10^{-11}$	$2,7\ 10^{-11}$		
		S	0,050	$1,7\ 10^{-11}$	$2,8\ 10^{-11}$		
Palladium							
Pd-100	3,63 d	F	0,005	$4,9\ 10^{-10}$	$7,6\ 10^{-10}$	0,005	$9,4\ 10^{-10}$
		M	0,005	$7,9\ 10^{-10}$	$9,5\ 10^{-10}$		
		S	0,005	$8,3\ 10^{-10}$	$9,7\ 10^{-10}$		
Pd-101	8,27 h	F	0,005	$4,2\ 10^{-11}$	$7,5\ 10^{-11}$	0,005	$9,4\ 10^{-11}$
		M	0,00	$6,2\ 10^{-11}$	$9,8\ 10^{-11}$		

			5				
		S	0,005	6,4 10^{-11}	1,0 10^{-10}		
Pd-103	17,0 d	F	0,005	9,0 10^{-11}	1,2 10^{-10}	0,005	1,9 10^{-10}
		M	0,005	3,5 10^{-10}	3,0 10^{-10}		
		S	0,005	4,0 10^{-10}	2,9 10^{-10}		
Pd-107	6,50 10^{-6} a	F	0,005	2,6 10^{-11}	3,3 10^{-11}	0,005	3,7 10^{-11}
		M	0,005	8,0 10^{-11}	5,2 10^{-11}		
		S	0,005	5,5 10^{-10}	2,9 10^{-10}		
Pd-109	13,4 h	F	0,005	1,2 10^{-10}	2,1 10^{-10}	0,005	5,5 10^{-10}
		M	0,005	3,4 10^{-10}	4,7 10^{-10}		
		S	0,005	3,6 10^{-10}	5,0 10^{-10}		
Silver							
Ag-102	0,215 h	F	0,050	1,4 10^{-11}	2,4 10^{-11}	0,050	4,0 10^{-11}
		M	0,050	1,8 10^{-11}	3,2 10^{-11}		
		S	0,050	1,9 10^{-11}	3,2 10^{-11}		
Ag-103	1,09 h	F	0,050	1,6 10^{-11}	2,8 10^{-11}	0,050	4,3 10^{-11}
		M	0,050	2,7 10^{-11}	4,3 10^{-11}		
		S	0,050	2,8 10^{-11}	4,5 10^{-11}		
Ag-104	1,15 h	F	0,050	3,0 10^{-11}	5,7 10^{-11}	0,050	6,0 10^{-11}
		M	0,050	3,9 10^{-11}	6,9 10^{-11}		
		S	0,050	4,0 10^{-11}	7,1 10^{-11}		
Ag-104m	0,558 h	F	0,05	1,7 10^{-11}	3,1 10^{-11}	0,05	5,4 10^{-11}

			0			0	
		M	0,050	$2,6\ 10^{-11}$	$4,4\ 10^{-11}$		
		S	0,050	$2,7\ 10^{-11}$	$4,5\ 10^{-11}$		
Ag-105	41,0 d	F	0,050	$5,4\ 10^{-10}$	$8,0\ 10^{-10}$	0,050	$4,7\ 10^{-10}$
		M	0,050	$6,9\ 10^{-10}$	$7,0\ 10^{-10}$		
		S	0,050	$7,8\ 10^{-10}$	$7,3\ 10^{-10}$		
Ag-106	0,399 h	F	0,050	$9,8\ 10^{-12}$	$1,7\ 10^{-11}$	0,050	$3,2\ 10^{-11}$
		M	0,050	$1,6\ 10^{-11}$	$2,6\ 10^{-11}$		
		S	0,050	$1,6\ 10^{-11}$	$2,7\ 10^{-11}$		
Ag-106m	8,41 d	F	0,050	$1,1\ 10^{-9}$	$1,6\ 10^{-9}$	0,050	$1,5\ 10^{-9}$
		M	0,050	$1,1\ 10^{-9}$	$1,5\ 10^{-9}$		
		S	0,050	$1,1\ 10^{-9}$	$1,4\ 10^{-9}$		
Ag-108m	$1,27\ 10^{-2}$ a	F	0,050	$6,1\ 10^{-9}$	$7,3\ 10^{-9}$	0,050	$2,3\ 10^{-9}$
		M	0,050	$7,0\ 10^{-9}$	$5,2\ 10^{-9}$		
		S	0,050	$3,5\ 10^{-8}$	$1,9\ 10^{-8}$		
Ag-110m	250 d	F	0,050	$5,5\ 10^{-9}$	$6,7\ 10^{-9}$	0,050	$2,8\ 10^{-9}$
		M	0,050	$7,2\ 10^{-9}$	$5,9\ 10^{-9}$		
		S	0,050	$1,2\ 10^{-8}$	$7,3\ 10^{-9}$		
Ag-111	7,45 d	F	0,050	$4,1\ 10^{-10}$	$5,7\ 10^{-10}$	0,050	$1,3\ 10^{-9}$
		M	0,050	$1,5\ 10^{-9}$	$1,5\ 10^{-9}$		
		S	0,050	$1,7\ 10^{-9}$	$1,6\ 10^{-9}$		
Ag-112	3,12 h	F	0,05	$8,2\ 10^{-11}$	$1,4\ 10^{-10}$	0,05	$4,3\ 10^{-10}$

			0			0	
		M	0,050	1,7 10^{-10}	2,5 10^{-10}		
		S	0,050	1,8 10^{-10}	2,6 10^{-10}		
Ag-115	0,333 h	F	0,050	1,6 10^{-11}	2,6 10^{-11}	0,050	6,0 10^{-11}
		M	0,050	2,8 10^{-11}	4,3 10^{-11}		
		S	0,050	3,0 10^{-11}	4,4 10^{-11}		
Cadmium							
Cd-104	0,961 h	F	0,050	2,7 10^{-11}	5,0 10^{-11}	0,050	5,8 10^{-11}
		M	0,050	3,6 10^{-11}	6,2 10^{-11}		
		S	0,050	3,7 10^{-11}	6,3 10^{-11}		
Cd-107	6,49 h	F	0,050	2,3 10^{-11}	4,2 10^{-11}	0,050	6,2 10^{-11}
		M	0,050	8,1 10^{-11}	1,0 10^{-10}		
		S	0,050	8,7 10^{-11}	1,1 10^{-10}		
Cd-109	1,27 a	F	0,050	8,1 10^{-9}	9,6 10^{-9}	0,050	2,0 10^{-9}
		M	0,050	6,2 10^{-9}	5,1 10^{-9}		
		S	0,050	5,8 10^{-9}	4,4 10^{-9}		
Cd-113	9,30 10^{15} a	F	0,050	1,2 10^{-7}	1,4 10^{-7}	0,050	2,5 10^{-8}
		M	0,050	5,3 10^{-8}	4,3 10^{-8}		
		S	0,050	2,5 10^{-8}	2,1 10^{-8}		
Cd-113m	13,6 a	F	0,050	1,1 10^{-7}	1,3 10^{-7}	0,050	2,3 10^{-8}
		M	0,050	5,0 10^{-8}	4,0 10^{-8}		
		S	0,05	3,0 10^{-8}	2,4 10^{-8}		

			0				
Cd-115	2,23 d	F	0,050	3,7 10^{-10}	5,4 10^{-10}	0,050	1,4 10^{-9}
		M	0,050	9,7 10^{-10}	1,2 10^{-9}		
		S	0,050	1,1 10^{-9}	1,3 10^{-9}		
Cd-115m	44,6 d	F	0,050	5,3 10^{-9}	6,4 10^{-9}	0,050	3,3 10^{-9}
		M	0,050	5,9 10^{-9}	5,5 10^{-9}		
		S	0,050	7,3 10^{-9}	5,5 10^{-9}		
Cd-117	2,49 h	F	0,050	7,3 10^{-11}	1,3 10^{-10}	0,050	2,8 10^{-10}
		M	0,050	1,6 10^{-10}	2,4 10^{-10}		
		S	0,050	1,7 10^{-10}	2,5 10^{-10}		
Cd-117m	3,36 h	F	0,050	1,0 10^{-10}	1,9 10^{-10}	0,050	2,8 10^{-10}
		M	0,050	2,0 10^{-10}	3,1 10^{-10}		
		S	0,050	2,1 10^{-10}	3,2 10^{-10}		
Indium							
In-109	4,20 h	F	0,020	3,2 10^{-11}	5,7 10^{-11}	0,020	6,6 10^{-11}
		M	0,020	4,4 10^{-11}	7,3 10^{-11}		
In-110	4,90 h	F	0,020	1,2 10^{-10}	2,2 10^{-10}	0,020	2,4 10^{-10}
		M	0,020	1,4 10^{-10}	2,5 10^{-10}		
In-110	1,15 h	F	0,020	3,1 10^{-11}	5,5 10^{-11}	0,020	1,0 10^{-10}
		M	0,020	5,0 10^{-11}	8,1 10^{-11}		
In-111	2,83 d	F	0,020	1,3 10^{-10}	2,2 10^{-10}	0,020	2,9 10^{-10}

		M	0,020	$2,3\ 10^{-10}$	$3,1\ 10^{-10}$		
In-112	0,240 h	F	0,020	$5,0\ 10^{-12}$	$8,6\ 10^{-12}$	0,020	$1,0\ 10^{-11}$
		M	0,020	$7,8\ 10^{-12}$	$1,3\ 10^{-11}$		
In-113m	1,66 h	F	0,020	$1,0\ 10^{-11}$	$1,9\ 10^{-11}$	0,020	$2,8\ 10^{-11}$
		M	0,020	$2,0\ 10^{-11}$	$3,2\ 10^{-11}$		
In-114m	49,5 d	F	0,020	$9,3\ 10^{-9}$	$1,1\ 10^{-8}$	0,020	$4,1\ 10^{-9}$
		M	0,020	$5,9\ 10^{-9}$	$5,9\ 10^{-9}$		
In-115	$5,10\ 10^{15}$ a	F	0,020	$3,9\ 10^{-7}$	$4,5\ 10^{-7}$	0,020	$3,2\ 10^{-8}$
		M	0,020	$1,5\ 10^{-7}$	$1,1\ 10^{-7}$		
In-115m	4,49 h	F	0,020	$2,5\ 10^{-11}$	$4,5\ 10^{-11}$	0,020	$8,6\ 10^{-11}$
		M	0,020	$6,0\ 10^{-11}$	$8,7\ 10^{-11}$		
In-116m	0,902 h	F	0,020	$3,0\ 10^{-11}$	$5,5\ 10^{-11}$	0,020	$6,4\ 10^{-11}$
		M	0,020	$4,8\ 10^{-11}$	$8,0\ 10^{-11}$		
In-117	0,730 h	F	0,020	$1,6\ 10^{-11}$	$2,8\ 10^{-11}$	0,020	$3,1\ 10^{-11}$
		M	0,020	$3,0\ 10^{-11}$	$4,8\ 10^{-11}$		
In-117m	1,94 h	F	0,020	$3,1\ 10^{-11}$	$5,5\ 10^{-11}$	0,020	$1,2\ 10^{-10}$
		M	0,020	$7,3\ 10^{-11}$	$1,1\ 10^{-10}$		
In-119m	0,300 h	F	0,020	$1,1\ 10^{-11}$	$1,8\ 10^{-11}$	0,020	$4,7\ 10^{-11}$
		M	0,020	$1,8\ 10^{-11}$	$2,9\ 10^{-11}$		

Tin

Sn-110	4,00 h	F	0,02	$1,1\ 10^{-10}$	$1,9\ 10^{-9}$	0,02	$3,5\ 10^{-10}$

			0			0	
		M	0,020	1,6 10^{-10}	2,6 10^{-10}		
Sn-111	0,588 h	F	0,020	8,3 10^{-12}	1,5 10^{-11}	0,020	2,3 10^{-11}
		M	0,020	1,4 10^{-11}	2,2 10^{-11}		
Sn-113	115 d	F	0,020	5,4 10^{-10}	7,9 10^{-10}	0,020	7,3 10^{-10}
		M	0,020	2,5 10^{-9}	1,9 10^{-9}		
Sn-117	13,6 d	F	0,020	2,9 10^{-10}	3,9 10^{-10}	0,020	7,1 10^{-10}
		M	0,020	2,3 10^{-9}	2,2 10^{-9}		
Sn-119m	293 d	F	0,020	2,9 10^{-10}	3,6 10^{-10}	0,020	3,4 10^{-10}
		M	0,020	2,0 10^{-9}	1,5 10^{-9}		
Sn-121	1,13 d	F	0,020	6,4 10^{-11}	1,0 10^{-10}	0,020	2,3 10^{-10}
		M	0,020	2,2 10^{-10}	2,8 10^{-10}		
Sn-121m	55,0 a	F	0,020	8,0 10^{-10}	9,7 10^{-10}	0,020	3,8 10^{-10}
		M	0,020	4,2 10^{-9}	3,3 10^{-9}		
Sn-123	129 d	F	0,020	1,2 10^{-9}	1,6 10^{-9}	0,020	2,1 10^{-9}
		M	0,020	7,7 10^{-9}	5,6 10^{-9}		
Sn-123m	0,668 h	F	0,020	1,4 10^{-11}	2,4 10^{-11}	0,020	3,8 10^{-11}
		M	0,020	2,8 10^{-11}	4,4 10^{-11}		
Sn-125	9,64 d	F	0,020	9,2 10^{-10}	1,3 10^{-9}	0,020	3,1 10^{-9}
		M	0,020	3,0 10^{-9}	2,8 10^{-9}		
Sn-126	1,00 10^{-5} a	F	0,020	1,1 10^{-8}	1,4 10^{-8}	0,020	4,7 10^{-9}

		M	0,020	2,7 10^{-8}	1,8 10^{-8}		
Sn-127	2,10 h	F	0,020	6,9 10^{-11}	1,2 10^{-10}	0,020	2,0 10^{-10}
		M	0,020	1,3 10^{-10}	2,0 10^{-10}		
Sn-128	0,985 h	F	0,020	5,4 10^{-11}	9,5 10^{-11}	0,020	1,5 10^{-10}
		M	0,020	9,6 10^{-11}	1,5 10^{-10}		
Antimony							
Sb-115	0,530 h	F	0,100	9,2 10^{-12}	1,7 10^{-11}	0,100	2,4 10^{-11}
		M	0,010	1,4 10^{-11}	2,3 10^{-11}		
Sb-116	0,263 h	F	0,100	9,9 10^{-12}	1,8 10^{-11}	0,100	2,6 10^{-11}
		M	0,010	1,4 10^{-11}	2,3 10^{-11}		
Sb-116m	1,00 h	F	0,100	3,5 10^{-11}	6,4 10^{-11}	0,100	6,7 10^{-11}
		M	0,010	5,0 10^{-11}	8,5 10^{-11}		
Sb-117	2,80 h	F	0,100	9,3 10^{-12}	1,7 10^{-11}	0,100	1,8 10^{-11}
		M	0,010	1,7 10^{-11}	2,7 10^{-11}		
Sb-118m	5,00 h	F	0,100	1,0 10^{-10}	1,9 10^{-10}	0,100	2,1 10^{-10}
		M	0,010	1,3 10^{-10}	2,3 10^{-10}		
Sb-119	1,59 d	F	0,100	2,5 10^{-11}	4,5 10^{-11}	0,100	8,1 10^{-11}
		M	0,010	3,7 10^{-11}	5,9 10^{-11}		
Sb-120	5,76 d	F	0,010	5,9 10^{-10}	9,8 10^{-10}	0,100	1,2 10^{-9}
		M	0,010	1,0 10^{-9}	1,3 10^{-9}		
Sb-120	0,265 h	F	0,10	4,9 10^{-12}	8,5 10^{-12}	0,10	1,4 10^{-11}

			0			0	
		M	0,010	7,4 10^{-12}	1,2 10^{-11}		
Sb-122	2,70 d	F	0,100	3,9 10^{-10}	6,3 10^{-10}	0,100	1,7 10^{-9}
		M	0,010	1,0 10^{-9}	1,2 10^{-9}		
Sb-124	60,2 d	F	0,100	1,3 10^{-9}	1,9 10^{-9}	0,100	2,5 10^{-9}
		M	0,010	6,1 10^{-9}	4,7 10^{-9}		
Sb-124m	0,337 h	F	0,100	3,0 10^{-12}	5,3 10^{-12}	0,100	8,0 10^{-12}
		M	0,010	5,5 10^{-12}	8,3 10^{-12}		
Sb-125	2,77 a	F	0,100	1,4 10^{-9}	1,7 10^{-9}	0,100	1,1 10^{-9}
		M	0,010	4,5 10^{-9}	3,3 10^{-9}		
Sb-126	12,4 d	F	0,100	1,1 10^{-9}	1,7 10^{-9}	0,100	2,4 10^{-9}
		M	0,010	2,7 10^{-9}	3,2 10^{-9}		
Sb-126m	0,317 h	F	0,100	1,3 10^{-11}	2,3 10^{-11}	0,100	3,6 10^{-11}
		M	0,010	2,0 10^{-11}	3,3 10^{-11}		
Sb-127	3,85 d	F	0,100	4,6 10^{-10}	7,4 10^{-10}	0,100	1,7 10^{-9}
		M	0,010	1,6 10^{-9}	1,7 10^{-9}		
Sb-128	9,01 h	F	0,100	2,5 10^{-10}	4,6 10^{-10}	0,100	7,6 10^{-10}
		M	0,010	4,2 10^{-10}	6,7 10^{-10}		
Sb-128	0,173 h	F	0,100	1,1 10^{-11}	1,9 10^{-11}	0,100	3,3 10^{-11}
		M	0,010	1,5 10^{-11}	2,6 10^{-11}		
Sb-129	4,32 h	F	0,100	1,1 10^{-10}	2,0 10^{-10}	0,100	4,2 10^{-10}

		M	0,010	2,4 10^{-10}	3,5 10^{-10}		
Sb-130	0,667 h	F	0,100	3,5 10^{-11}	6,3 10^{-11}	0,100	9,1 10^{-11}
		M	0,010	5,4 10^{-11}	9,1 10^{-11}		
Sb-131	0,383 h	F	0,100	3,7 10^{-11}	5,9 10^{-11}	0,100	1,0 10^{-10}
		M	0,010	5,2 10^{-11}	8,3 10^{-11}		

Tellurium

Te-116	2,49 h	F	0,300	6,3 10^{-11}	1,2 10^{-10}	0,300	1,7 10^{-10}
		M	0,300	1,1 10^{-10}	1,7 10^{-10}		
Te-121	17,0 d	F	0,300	2,5 10^{-10}	3,9 10^{-10}	0,300	4,3 10^{-10}
		M	0,300	3,9 10^{-10}	4,4 10^{-10}		
Te-121m	154 d	F	0,300	1,8 10^{-9}	2,3 10^{-9}	0,300	2,3 10^{-9}
		M	0,300	4,2 10^{-9}	3,6 10^{-9}		
Te-123	1,00 10^{13} a	F	0,300	4,0 10^{-9}	5,0 10^{-9}	0,300	4,4 10^{-9}
		M	0,300	2,6 10^{-9}	2,8 10^{-9}		
Te-123m	120 d	F	0,300	9,7 10^{-10}	1,2 10^{-9}	0,300	1,4 10^{-9}
		M	0,300	3,9 10^{-9}	3,4 10^{-9}		
Te-125m	58,0 d	F	0,300	5,1 10^{-10}	6,7 10^{-10}	0,300	8,7 10^{-10}
		M	0,300	3,3 10^{-9}	2,9 10^{-9}		
Te-127	9,35 h	F	0,300	4,2 10^{-11}	7,2 10^{-11}	0,300	1,7 10^{-10}
		M	0,300	1,2 10^{-10}	1,8 10^{-10}		
Te-127m	109 d	F	0,30	1,6 10^{-9}	2,0 10^{-9}	0,30	2,3 10^{-9}

			0			0	
		M	0,300	7,2 10^{-9}	6,2 10^{-9}		
Te-129	1,16 h	F	0,300	1,7 10^{-11}	2,9 10^{-11}	0,300	6,3 10^{-11}
		M	0,300	3,8 10^{-11}	5,7 10^{-11}		
Te-129m	33,6 d	F	0,300	1,3 10^{-9}	1,8 10^{-9}	0,300	3,0 10^{-9}
		M	0,300	6,3 10^{-9}	5,4 10^{-9}		
Te-131	0,417 h	F	0,300	2,3 10^{-11}	4,6 10^{-11}	0,300	8,7 10^{-11}
		M	0,300	3,8 10^{-11}	6,1 10^{-11}		
Te-131m	1,25 d	F	0,300	8,7 10^{-10}	1,2 10^{-9}	0,300	1,9 10^{-9}
		M	0,300	1,1 10^{-9}	1,6 10^{-9}		
Te-132	3,26 d	F	0,300	1,8 10^{-9}	2,4 10^{-9}	0,300	3,7 10^{-9}
		M	0,300	2,2 10^{-9}	3,0 10^{-9}		
Te-133	0,207 h	F	0,300	2,0 10^{-11}	3,8 10^{-11}	0,300	7,2 10^{-11}
		M	0,300	2,7 10^{-11}	4,4 10^{-11}		
Te-133m	0,923 h	F	0,300	8,4 10^{-11}	1,2 10^{-10}	0,300	2,8 10^{-10}
		M	0,300	1,2 10^{-10}	1,9 10^{-10}		
Te-134	0,696 h	F	0,300	5,0 10^{-11}	8,3 10^{-11}	0,300	1,1 10^{-10}
		M	0,300	7,1 10^{-11}	1,1 10^{-10}		
Iodine							
I-120	1,35 h	F	1,000	1,0 10^{-10}	1,9 10^{-10}	1,000	3,4 10^{-10}
I-120m	0,883 h	F	1,000	8,7 10^{-11}	1,4 10^{-10}	1,000	2,1 10^{-10}

I-121	2,12 h	F	1,000	2,8 10^{-11}	3,9 10^{-11}	1,000	8,2 10^{-11}
I-123	13,2 h	F	1,000	7,6 10^{-11}	1,1 10^{-10}	1,000	**2,[illegible]** 10^{-10}
I-124	4,18 d	F	1,000	4,5 10^{-9}	6,3 10^{-9}	1,000	1,3 10^{-8}
I-125	60,1 d	F	1,000	5,3 10^{-9}	7,3 10^{-9}	1,000	1,5 10^{-8}
I-126	13,0 d	F	1,000	1,0 10^{-8}	1,4 10^{-8}	1,000	2,9 10^{-8}
I-128	0,416 h	F	1,000	1,4 10^{-11}	2,2 10^{-11}	1,000	4,6 10^{-11}
I-129	1,57 10^{7} a	F	1,000	3,7 10^{-8}	5,1 10^{-8}	1,000	1,1 10^{-7}
I-130	12,4 h	F	1,000	6,9 10^{-10}	9,6 10^{-10}	1,000	2,0 10^{-9}
I-131	8,04 d	F	1,000	7,6 10^{-9}	1,1 10^{-8}	1,000	2,2 10^{-8}
I-132	2,30 h	F	1,000	9,6 10^{-11}	2,0 10^{-10}	1,000	2,9 10^{-10}
I-132m	1,39 h	F	1,000	8,1 10^{-11}	1,1 10^{-10}	1,000	2,2 10^{-10}
I-133	20,8 h	F	1,000	1,5 10^{-9}	2,1 10^{-9}	1,000	4,3 10^{-9}
I-134	0,876 h	F	1,000	4,8 10^{-11}	7,9 10^{-11}	1,000	1,1 10^{-10}
I-135	6,61 h	F	1,000	3,3 10^{-10}	4,6 10^{-10}	1,000	9,3 10^{-10}
Caesium							
Cs-125	0,750 h	F	1,000	1,3 10^{-11}	2,3 10^{-11}	1,000	3,5 10^{-11}
Cs-127	6,25 h	F	1,000	2,2 10^{-11}	4,0 10^{-11}	1,000	2,4 10^{-11}
Cs-129	1,34 d	F	1,000	4,5 10^{-11}	8,1 10^{-11}	1,000	6,0 10^{-11}
Cs-130	0,498 h	F	1,000	8,4 10^{-12}	1,5 10^{-11}	1,000	2,8 10^{-11}

Cs-131	9,69 d	F	1,000	2,8 10^{-11}	4,5 10^{-11}	1,000	5,8 10^{-11}
Cs-132	6,48 d	F	1,000	2,4 10^{-10}	3,8 10^{-10}	1,000	5,0 10^{-10}
Cs-134	2,06 a	F	1,000	6,8 10^{-9}	9,6 10^{-9}	1,000	1,9 10^{-8}
Cs-134m	2,90 h	F	1,000	1,5 10^{-11}	2,6 10^{-11}	1,000	2,0 10^{-11}
Cs-135	2,30 10^{6} a	F	1,000	7,1 10^{-10}	9,9 10^{-10}	1,000	2,0 10^{-9}
Cs-135m	0,883 h	F	1,000	1,3 10^{-11}	2,4 10^{-11}	1,000	1,9 10^{-11}
Cs-136	13,1 d	F	1,000	1,3 10^{-9}	1,9 10^{-9}	1,000	3,0 10^{-9}
Cs-137	30,0 a	F	1,000	4,8 10^{-9}	6,7 10^{-9}	1,000	1,3 10^{-8}
Cs-138	0,536 h	F	1,000	2,6 10^{-11}	4,6 10^{-11}	1,000	9,2 10^{-11}

Barium

Ba-126	1,61 h	F	0,100	7,8 10^{-11}	1,2 10^{-10}	0,100	2,6 10^{-10}
Ba-128	2,43 h	F	0,100	8,0 10^{-10}	1,3 10^{-9}	0,100	2,7 10^{-9}
Ba-131	11,8 d	F	0,100	2,3 10^{-10}	3,5 10^{-10}	0,100	4,5 10^{-10}
Ba-131m	0,243 h	F	0,100	4,1 10^{-12}	6,4 10^{-12}	0,100	4,9 10^{-12}
Ba-133	10,7 a	F	0,100	1,5 10^{-9}	1,8 10^{-9}	0,100	1,0 10^{-9}
Ba-133m	1,62 d	F	0,100	1,9 10^{-10}	2,8 10^{-10}	0,100	5,5 10^{-10}
Ba-135m	1,20 d	F	0,100	1,5 10^{-10}	2,3 10^{-10}	0,100	4,5 10^{-10}
Ba-139	1,38 h	F	0,100	3,5 10^{-11}	5,5 10^{-11}	0,100	1,2 10^{-10}
Ba-140	12,7 d	F	0,100	1,0 10^{-9}	1,6 10^{-9}	0,100	2,5 10^{-9}

Ba-141	0,305 h	F	0,100	2,2 10^{-11}	3,5 10^{-11}	0,100	7,0 10^{-11}
Ba-142	0,177 h	F	0,100	1,6 10^{-11}	2,7 10^{-11}	0,100	3,5 10^{-11}

Lanthanum

La-131	0,983 h	F	5,0 10^{-4}	1,4 10^{-11}	2,4 10^{-11}	5,0 10^{-4}	3,5 10^{-11}
		M	5,0 10^{-4}	2,3 10^{-11}	3,6 10^{-11}		
La-132	4,80 h	F	5,0 10^{-4}	1,1 10^{-10}	2,0 10^{-10}	5,0 10^{-4}	3,9 10^{-10}
		M	5,0 10^{-4}	1,7 10^{-10}	2,8 10^{-10}		
La-135	19,5 h	F	5,0 10^{-4}	1,1 10^{-11}	2,0 10^{-11}	5,0 10^{-4}	3,0 10^{-11}
		M	5,0 10^{-4}	1,5 10^{-11}	2,5 10^{-11}		
La-137	6,00 10^{-4} a	F	5,0 10^{-4}	8,6 10^{-9}	1,0 10^{-4}	5,0 10^{-4}	8,1 10^{-11}
		M	5,0 10^{-4}	3,4 10^{-9}	2,3 10^{-9}		
La-138	1,35 10^{11} a	F	5,0 10^{-4}	1,5 10^{-7}	1,8 10^{-7}	5,0 10^{-4}	1,1 10^{-9}
		M	5,0 10^{-4}	6,1 10^{-8}	4,2 10^{-8}		
La-140	1,68 d	F	5,0 10^{-4}	6,0 10^{-10}	1,0 10^{-9}	5,0 10^{-4}	2,0 10^{-9}
		M	5,0 10^{-4}	1,1 10^{-9}	1,5 10^{-9}		
La-141	3,93 h	F	5,0 10^{-4}	6,7 10^{-11}	1,1 10^{-10}	5,0 10^{-4}	3,6 10^{-10}
		M	5,0 10^{-4}	1,5 10^{-10}	2,2 10^{-10}		
La-142	1,54 h	F	5,0 10^{-4}	5,6 10^{-11}	1,0 10^{-10}	5,0 10^{-4}	1,8 10^{-10}
		M	5,0 10^{-4}	9,3 10^{-11}	3,3 10^{-11}		
La-143	0,237 h	F	5,0 10^{-4}	1,2 10^{-11}	2,0 10^{-11}	5,0 10^{-4}	5,6 10^{-11}
		M	5,0	2,2 10^{-11}	3,3 10^{-11}		

			10^{-4}				
Cerium							
Ce-134	3,00 d	M	5,0 10^{-4}	1,3 10^{-9}	1,5 10^{-9}	5,0 10^{-4}	2,5 10^{-9}
		S	5,0 10^{-4}	1,3 10^{-9}	1,6 10^{-9}		
Ce-135	17,6 h	M	5,0 10^{-4}	4,9 10^{-10}	7,3 10^{-10}	5,0 10^{-4}	7,9 10^{-10}
		S	5,0 10^{-4}	5,1 10^{-10}	7,6 10^{-10}		
Ce-137	9,00 h	M	5,0 10^{-4}	1,0 10^{-11}	1,8 10^{-11}	5,0 10^{-4}	2,5 10^{-11}
		S	5,0 10^{-4}	1,1 10^{-11}	1,9 10^{-11}		
Ce-137m	1,43 d	M	5,0 10^{-4}	4,0 10^{-10}	5,5 10^{-10}	5,0 10^{-4}	5,4 10^{-10}
		S	5,0 10^{-4}	4,3 10^{-10}	5,9 10^{-10}		
Ce-139	138 d	M	5,0 10^{-4}	1,6 10^{-9}	1,3 10^{-9}	5,0 10^{-4}	2,6 10^{-10}
		S	5,0 10^{-4}	1,8 10^{-9}	1,4 10^{-9}		
Ce-141	32,5 d	M	5,0 10^{-4}	3,1 10^{-9}	2,7 10^{-9}	5,0 10^{-4}	7,1 10^{-10}
		S	5,0 10^{-4}	3,6 10^{-9}	3,1 10^{-9}		
Ce-143	1,38 d	M	5,0 10^{-4}	7,4 10^{-10}	9,5 10^{-10}	5,0 10^{-4}	1,1 10^{-9}
		S	5,0 10^{-4}	8,1 10^{-10}	1,0 10^{-9}		
Ce-144	284 d	M	5,0 10^{-4}	3,4 10^{-8}	2,3 10^{-8}	5,0 10^{-4}	5,2 10^{-9}
		S	5,0 10^{-4}	4,9 10^{-8}	2,9 10^{-8}		
Praseodymium							
Pr-136	0,218 h	M	5,0 10^{-4}	1,4 10^{-11}	2,4 10^{-11}	5,0 10^{-4}	3,3 10^{-11}
		S	5,0	1,5 10^{-11}	2,5 10^{-11}		

			10^{-4}				
Pr-137	1,28 h	M	5,0 10^{-4}	2,1 10^{-11}	3,4 10^{-11}	5,0 10^{-4}	4,0 10^{-11}
		S	5,0 10^{-4}	2,2 10^{-11}	3,5 10^{-11}		
Pr-138m	2,10 h	M	5,0 10^{-4}	7,6 10^{-11}	1,3 10^{-10}	5,0 10^{-4}	1,3 10^{-11}
		S	5,0 10^{-4}	7,9 10^{-11}	1,3 10^{-10}		
Pr-139	4,51 h	M	5,0 10^{-4}	1,9 10^{-11}	2,9 10^{-11}	5,0 10^{-4}	3,1 10^{-11}
		S	5,0 10^{-4}	2,0 10^{-11}	3,0 10^{-11}		
Pr-142	19,1 h	M	5,0 10^{-4}	5,3 10^{-10}	7,0 10^{-10}	5,0 10^{-4}	1,3 10^{-9}
		S	5,0 10^{-4}	5,6 10^{-10}	7,4 10^{-10}		
Pr-142m	0,243 h	M	5,0 10^{-4}	6,7 10^{-12}	8,9 10^{-12}	5,0 10^{-4}	1,7 10^{-11}
		S	5,0 10^{-4}	7,1 10^{-12}	9,4 10^{-12}		
Pr-142m	0,243 h	M	5,0 10^{-4}	6,7 10^{-12}	8,9 10^{-12}	5,0 10^{-4}	1,7 10^{-11}
		S	5,0 10^{-4}	7,1 10^{-12}	9,4 10^{-12}		
Pr-143	13,6 d	M	5,0 10^{-4}	2,1 10^{-9}	1,9 10^{-9}	5,0 10^{-4}	1,2 10^{-9}
		S	5,0 10^{-4}	2,3 10^{-9}	2,2 10^{-9}		
Pr-144	0,288 h	M	5,0 10^{-4}	1,8 10^{-11}	2,9 10^{-11}	5,0 10^{-4}	5,0 10^{-11}
		S	5,0 10^{-4}	1,9 10^{-11}	3,0 10^{-11}		
Pr-145	5,98 h	M	5,0 10^{-4}	1,6 10^{-10}	2,5 10^{-10}	5,0 10^{-4}	3,9 10^{-10}
		S	5,0 10^{-4}	1,7 10^{-10}	2,6 10^{-10}		
Pr-147	0,227 h	M	5,0 10^{-4}	1,8 10^{-11}	2,9 10^{-11}	5,0 10^{-4}	3,3 10^{-11}
		S	5,0 10^{-4}	1,9 10^{-11}	3,0 10^{-11}		

Neodymium

Nd-136	0,844 h	M	5,0 10^{-4}	5,3 10^{-11}	8,5 10^{-11}	5,0 10^{-4}	9,9 10^{-11}
		S	5,0 10^{-4}	5,6 10^{-11}	8,9 10^{-11}		
Nd-138	5,04 h	M	5,0 10^{-4}	2,4 10^{-10}	3,7 10^{-10}	5,0 10^{-4}	6,4 10^{-11}
		S	5,0 10^{-4}	2,6 10^{-10}	3,8 10^{-10}		
Nd-139	0,495 h	M	5,0 10^{-4}	1,0 10^{-11}	1,7 10^{-11}	5,0 10^{-4}	2,0 10^{-11}
		S	5,0 10^{-4}	1,1 10^{-11}	1,7 10^{-11}		
Nd-139m	5,50 h	M	5,0 10^{-4}	1,5 10^{-10}	2,5 10^{-10}	5,0 10^{-4}	2,5 10^{-10}
		S	5,0 10^{-4}	1,6 10^{-10}	2,5 10^{-10}		
Nd-141	2,49 h	M	5,0 10^{-4}	5,1 10^{-12}	8,5 10^{-12}	5,0 10^{-4}	8,3 10^{-12}
		S	5,0 10^{-4}	5,3 10^{-12}	8,8 10^{-12}		
Nd-147	11,0 d	M	5,0 10^{-4}	2,0 10^{-9}	1,9 10^{-9}	5,0 10^{-4}	1,1 10^{-9}
		S	5,0 10^{-4}	2,3 10^{-9}	2,1 10^{-9}		
Nd-149	1,73 h	M	5,0 10^{-4}	8,5 10^{-11}	1,2 10^{-10}	5,0 10^{-4}	1,2 10^{-10}
		S	5,0 10^{-4}	9,0 10^{-11}	1,3 10^{-10}		
Nd-151	0,207 h	M	5,0 10^{-4}	1,7 10^{-11}	2,8 10^{-11}	5,0 10^{-4}	3,0 10^{-11}
		S	5,0 10^{-4}	1,8 10^{-11}	2,9 10^{-11}		

Promethium

Pm-141	0,348 h	M	5,0 10^{-4}	1,5 10^{-11}	2,4 10^{-11}	5,0 10^{-4}	3,6 10^{-11}
		S	5,0 10^{-4}	1,6 10^{-11}	2,5 10^{-11}		
Pm-143	265 d	M	5,0 10^{-4}	1,4 10^{-9}	9,6 10^{-10}	5,0 10^{-4}	2,3 10^{-10}

		S	5,0 10^{-4}	1,3 10^{-9}	8,3 10^{-10}		
Pm-144	363 d	M	5,0 10^{-4}	7,8 10^{-9}	5,4 10^{-9}	5,0 10^{-4}	9,7 10^{-10}
		S	5,0 10^{-4}	7,0 10^{-9}	3,9 10^{-9}		
Pm-145	17,7 a	M	5,0 10^{-4}	3,4 10^{-9}	2,4 10^{-9}	5,0 10^{-4}	1,1 10^{-10}
		S	5,0 10^{-4}	2,1 10^{-9}	1,2 10^{-9}		
Pm-146	5,53 a	M	5,0 10^{-4}	1,9 10^{-8}	1,3 10^{-4}	5,0 10^{-4}	9,0 10^{-10}
		S	5,0 10^{-4}	1,6 10^{-8}	9,0 10^{-9}		
Pm-147	2,62 a	M	5,0 10^{-4}	4,7 10^{-9}	3,5 10^{-9}	5,0 10^{-4}	2,6 10^{-10}
		S	5,0 10^{-4}	4,6 10^{-9}	3,2 10^{-9}		
Pm-148	5,37 d	M	5,0 10^{-4}	2,0 10^{-9}	2,1 10^{-9}	5,0 10^{-4}	2,7 10^{-9}
		S	5,0 10^{-4}	2,1 10^{-9}	2,2 10^{-9}		
Pm-148m	41,3 d	M	5,0 10^{-4}	4,9 10^{-9}	4,1 10^{-9}	5,0 10^{-4}	1,8 10^{-9}
		S	5,0 10^{-4}	5,4 10^{-9}	4,3 10^{-9}		
Pm-149	2,21 d	M	5,0 10^{-4}	6,6 10^{-10}	7,6 10^{-10}	5,0 10^{-4}	9,9 10^{-10}
		S	5,0 10^{-4}	7,2 10^{-10}	8,2 10^{-10}		
Pm-150	2,68 h	M	5,0 10^{-4}	1,3 10^{-10}	2,0 10^{-10}	5,0 10^{-4}	2,6 10^{-10}
		S	5,0 10^{-4}	1,4 10^{-10}	2,1 10^{-10}		
Pm-151	1,18 d	M	5,0 10^{-4}	4,2 10^{-10}	6,1 10^{-10}	5,0 10^{-4}	7,3 10^{-10}
		S	5,0 10^{-4}	4,5 10^{-10}	6,4 10^{-10}		
Samarium							
Sm-141	0,170 h	M	5,0	1,6 10^{-11}	2,7 10^{-11}	5,0	3,9 10^{-11}

			10^{-4}			10^{-4}	
Sm-141m	0,377 h	M	5,0 10^{-4}	3,4 10^{-11}	5,6 10^{-11}	5,0 10^{-4}	6,5 10^{-11}
Sm-142	1,21 h	M	5,0 10^{-4}	7,4 10^{-11}	1,1 10^{-10}	5,0 10^{-4}	1,9 10^{-10}
Sm-145	340 d	M	5,0 10^{-4}	1,5 10^{-9}	1,1 10^{-9}	5,0 10^{-4}	2,1 10^{-10}
Sm-146	1,03 10^{8} a	M	5,0 10^{-4}	9,9 10^{-6}	6,7 10^{-6}	5,0 10^{-4}	5,4 10^{-8}
Sm-147	1,06 10^{11} a	M	5,0 10^{-4}	8,9 10^{-6}	6,1 10^{-6}	5,0 10^{-4}	4,9 10^{-8}
Sm-151	90,0 a	M	5,0 10^{-4}	3,7 10^{-9}	2,6 10^{-9}	5,0 10^{-4}	9,8 10^{-11}
Sm-153	1,95 d	M	5,0 10^{-4}	6,1 10^{-10}	6,8 10^{-10}	5,0 10^{-4}	7,4 10^{-10}
Sm-155	0,368 h	M	5,0 10^{-4}	1,7 10^{-11}	2,8 10^{-11}	5,0 10^{-4}	2,9 10^{-11}
Sm-156	9,40 h	M	5,0 10^{-4}	2,1 10^{-10}	2,8 10^{-10}	5,0 10^{-4}	2,5 10^{-10}
Europium							
Eu-145	5,94 d	M	5,0 10^{-4}	5,6 10^{-10}	7,3 10^{-10}	5,0 10^{-4}	7,5 10^{-10}
Eu-146	4,61 d	M	5,0 10^{-4}	8,2 10^{-10}	1,2 10^{-9}	5,0 10^{-4}	1,3 10^{-9}
Eu-147	24,0 d	M	5,0 10^{-4}	1,0 10^{-9}	1,0 10^{-9}	5,0 10^{-4}	4,4 10^{-10}
Eu-148	54,5 d	M	5,0 10^{-4}	2,7 10^{-9}	2,3 10^{-9}	5,0 10^{-4}	1,3 10^{-9}
Eu-149	93,1 d	M	5,0 10^{-4}	2,7 10^{-10}	2,3 10^{-10}	5,0 10^{-4}	1,0 10^{-10}
Eu-150	34,2 a	M	5,0 10^{-4}	5,0 10^{-8}	3,4 10^{-8}	5,0 10^{-4}	1,3 10^{-9}
Eu-150	12,6 h	M	5,0 10^{-4}	1,9 10^{-10}	2,8 10^{-10}	5,0 10^{-4}	3,8 10^{-10}
Eu-152	13,3 a	M	5,0 10^{-4}	3,9 10^{-8}	2,7 10^{-8}	5,0 10^{-4}	1,4 10^{-9}
Eu-152m	9,32 h	M	5,0	2,2 10^{-10}	3,2 10^{-10}	5,0	5,0 10^{-10}

			10^{-4}			10^{-4}	
Eu-154	8,80 a	M	5,0 10^{-4}	5,0 10^{-8}	3,5 10^{-8}	5,0 10^{-4}	2,0 10^{-9}
Eu-155	4,96 a	M	5,0 10^{-4}	6,5 10^{-9}	4,7 10^{-9}	5,0 10^{-4}	3,2 10^{-10}
Eu-156	15,2 d	M	5,0 10^{-4}	3,3 10^{-9}	3,0 10^{-9}	5,0 10^{-4}	2,2 10^{-9}
Eu-157	15,1 h	M	5,0 10^{-4}	3,2 10^{-10}	4,4 10^{-10}	5,0 10^{-4}	6,0 10^{-10}
Eu-158	0,765 h	M	5,0 10^{-4}	4,8 10^{-11}	7,5 10^{-11}	5,0 10^{-4}	9,4 10^{-11}
Gadolinium							
Gd-145	0,382 h	F	5,0 10^{-4}	1,5 10^{-11}	2,6 10^{-11}	5,0 10^{-4}	4,4 10^{-11}
		M	5,0 10^{-4}	2,1 10^{-11}	3,5 10^{-11}		
Gd-146	48,3 d	F	5,0 10^{-4}	4,4 10^{-9}	5,2 10^{-9}	5,0 10^{-4}	9,6 10^{-10}
		M	5,0 10^{-4}	6,0 10^{-9}	4,6 10^{-9}		
Gd-147	1,59 d	F	5,0 10^{-4}	2,7 10^{-10}	4,5 10^{-10}	5,0 10^{-4}	6,1 10^{-10}
		M	5,0 10^{-4}	4,1 10^{-10}	5,9 10^{-10}		
Gd-148	93,0 a	F	5,0 10^{-4}	2,5 10^{-5}	3,0 10^{-5}	5,0 10^{-4}	5,5 10^{-8}
		M	5,0 10^{-4}	1,1 10^{-5}	7,2 10^{-6}		
Gd-149	9,40 d	F	5,0 10^{-4}	2,6 10^{-10}	4,5 10^{-10}	5,0 10^{-4}	4,5 10^{-10}
		M	5,0 10^{-4}	7,0 10^{-10}	7,9 10^{-10}		
Gd-151	120 d	F	5,0 10^{-4}	7,8 10^{-10}	9,3 10^{-10}	5,0 10^{-4}	2,0 10^{-10}
		M	5,0 10^{-4}	8,1 10^{-10}	6,5 10^{-10}		
Gd-152	1,08 10^{14} a	F	5,0 10^{-4}	1,9 10^{-5}	2,2 10^{-5}	5,0 10^{-4}	4,1 10^{-8}
		M	5,0	7,4 10^{-6}	5,0 10^{-6}		

			10^{-4}				
Gd-153	242 d	F	5,0 10^{-4}	2,1 10^{-9}	2,5 10^{-9}	5,0 10^{-4}	2,7 10^{-10}
		M	5,0 10^{-4}	1,9 10^{-9}	1,4 10^{-9}		
Gd-159	18,6 h	F	5,0 10^{-4}	1,1 10^{-10}	1,8 10^{-10}	5,0 10^{-4}	4,9 10^{-10}
		M	5,0 10^{-4}	2,7 10^{-10}	3,9 10^{-10}		
Terbium							
Tb-147	1,65 h	M	5,0 10^{-4}	7,9 10^{-11}	1,2 10^{-10}	5,0 10^{-4}	1,6 10^{-10}
Tb-149	4,15 h	M	5,0 10^{-4}	4,3 10^{-9}	3,1 10^{-9}	5,0 10^{-4}	2,5 10^{-10}
Tb-150	3,27 h	M	5,0 10^{-4}	1,1 10^{-10}	1,8 10^{-10}	5,0 10^{-4}	2,5 10^{-10}
Tb-151	17,6 h	M	5,0 10^{-4}	2,3 10^{-10}	3,3 10^{-10}	5,0 10^{-4}	3,4 10^{-10}
Tb-153	2,34 d	M	5,0 10^{-4}	2,0 10^{-10}	2,4 10^{-10}	5,0 10^{-4}	2,5 10^{-10}
Tb-154	21,4 h	M	5,0 10^{-4}	3,8 10^{-10}	6,0 10^{-10}	5,0 10^{-4}	6,5 10^{-10}
Tb-155	5,32 d	M	5,0 10^{-4}	2,1 10^{-10}	2,5 10^{-10}	5,0 10^{-4}	2,1 10^{-10}
Tb-156	5,34 d	M	5,0 10^{-4}	1,2 10^{-9}	1,4 10^{-9}	5,0 10^{-4}	1,2 10^{-9}
Tb-156m	1,02 d	M	5,0 10^{-4}	2,0 10^{-10}	2,3 10^{-10}	5,0 10^{-4}	1,7 10^{-10}
Tb-156m	5,00 h	M	5,0 10^{-4}	9,2 10^{-11}	1,3 10^{-10}	5,0 10^{-4}	8,1 10^{-11}
Tb-157	1,50 10^{2} a	M	5,0 10^{-4}	1,1 10^{-9}	7,9 10^{-10}	5,0 10^{-4}	3,4 10^{-11}
Tb-158	1,50 10^{2} a	M	5,0 10^{-4}	4,3 10^{-8}	3,0 10^{-8}	5,0 10^{-4}	1,1 10^{-9}
Tb-160	72,3 d	M	5,0 10^{-4}	6,6 10^{-9}	5,4 10^{-9}	5,0 10^{-4}	1,6 10^{-9}
Tb-161	6,91 d	M	5,0	1,2 10^{-9}	1,2 10^{-9}	5,0	7,2 10^{-10}

			10^{-4}			10^{-4}	

Dysprosium

Dy-155	10,0 h	M	5,0 10^{-4}	8,0 10^{-11}	1,2 10^{-10}	5,0 10^{-4}	1,3 10^{-10}
Dy-157	8,10 h	M	5,0 10^{-4}	3,2 10^{-11}	5,5 10^{-11}	5,0 10^{-4}	6,1 10^{-11}
Dy-159	144 d	M	5,0 10^{-4}	3,5 10^{-10}	2,5 10^{-10}	5,0 10^{-4}	1,0 10^{-10}
Dy-165	2,33 h	M	5,0 10^{-4}	6,1 10^{-11}	8,7 10^{-11}	5,0 10^{-4}	1,1 10^{-10}
Dy-166	3,40 d	M	5,0 10^{-4}	1,8 10^{-9}	1,8 10^{-9}	5,0 10^{-4}	1,6 10^{-9}

Holmium

Ho-155	0,800 h	M	5,0 10^{-4}	2,0 10^{-11}	3,2 10^{-11}	5,0 10^{-4}	3,7 10^{-11}
Ho-157	0,210 h	M	5,0 10^{-4}	4,5 10^{-12}	7,6 10^{-12}	5,0 10^{-4}	6,5 10^{-12}
Ho-159	0,550 h	M	5,0 10^{-4}	6,3 10^{-12}	1,0 10^{-11}	5,0 10^{-4}	7,9 10^{-12}
Ho-161	2,50 h	M	5,0 10^{-4}	6,3 10^{-12}	1,0 10^{-11}	5,0 10^{-4}	1,3 10^{-11}
Ho-162	0,250 h	M	5,0 10^{-4}	2,9 10^{-12}	4,5 10^{-12}	5,0 10^{-4}	3,3 10^{-12}
Ho-162m	1,13 h	M	5,0 10^{-4}	2,2 10^{-11}	3,3 10^{-11}	5,0 10^{-4}	2,6 10^{-11}
Ho-164	0,483 h	M	5,0 10^{-4}	8,6 10^{-12}	1,3 10^{-11}	5,0 10^{-4}	9,5 10^{-12}
Ho-164m	0,625 h	M	5,0 10^{-4}	1,2 10^{-11}	1,6 10^{-11}	5,0 10^{-4}	1,6 10^{-11}
Ho-166	1,12 d	M	5,0 10^{-4}	6,6 10^{-10}	8,3 10^{-10}	5,0 10^{-4}	1,4 10^{-9}
Ho-166m	1,20 10^{3} a	M	5,0 10^{-4}	1,1 10^{-7}	7,8 10^{-8}	5,0 10^{-4}	2,0 10^{-9}
Ho-167	3,10 h	M	5,0 10^{-4}	7,1 10^{-11}	1,0 10^{-10}	5,0 10^{-4}	8,3 10^{-11}

Erbium

Er-161	3,24 h	M	5,0 10^{-4}	5,1 10^{-11}	8,5 10^{-11}	5,0 10^{-4}	8,0 10^{-11}
Er-165	10,4 h	M	5,0 10^{-4}	8,3 10^{-12}	1,4 10^{-11}	5,0 10^{-4}	1,9 10^{-11}
Er-169	9,30 d	M	5,0 10^{-4}	9,8 10^{-10}	9,2 10^{-10}	5,0 10^{-4}	3,7 10^{-10}
Er-171	7,52 h	M	5,0 10^{-4}	2,2 10^{-10}	3,0 10^{-10}	5,0 10^{-4}	3,6 10^{-10}
Er-172	2,05 d	M	5,0 10^{-4}	1,1 10^{-9}	1,2 10^{-9}	5,0 10^{-4}	1,0 10^{-9}
Thulium							
Tm-162	0,362 h	M	5,0 10^{-4}	1,6 10^{-11}	2,7 10^{-11}	5,0 10^{-4}	2,9 10^{-11}
Tm-166	7,70 h	M	5,0 10^{-4}	1,8 10^{-10}	2,8 10^{-10}	5,0 10^{-4}	2,8 10^{-10}
Tm-167	9,24 d	M	5,0 10^{-4}	1,1 10^{-9}	1,0 10^{-9}	5,0 10^{-4}	5,6 10^{-10}
Tm-170	129 d	M	5,0 10^{-4}	6,6 10^{-9}	5,2 10^{-9}	5,0 10^{-4}	1,3 10^{-9}
Tm-171	1,92 a	M	5,0 10^{-4}	1,3 10^{-9}	9,1 10^{-10}	5,0 10^{-4}	1,1 10^{-10}
Tm-172	2,65 d	M	5,0 10^{-4}	1,1 10^{-9}	1,4 10^{-9}	5,0 10^{-4}	1,7 10^{-9}
Tm-173	8,24 h	M	5,0 10^{-4}	1,8 10^{-10}	2,6 10^{-10}	5,0 10^{-4}	3,1 10^{-10}
Tm-175	0,253 h	M	5,0 10^{-4}	1,9 10^{-11}	3,1 10^{-11}	5,0 10^{-4}	2,7 10^{-11}
Ytterbium							
Yb-162	0,315 h	M	5,0 10^{-4}	1,4 10^{-11}	2,2 10^{-11}	5,0 10^{-11}	2,3 10^{-11}
		S	5,0 10^{-4}	1,4 10^{-11}	2,3 10^{-11}		
Yb-166	2,36 d	M	5,0 10^{-4}	7,2 10^{-10}	9,1 10^{-10}	5,0 10^{-4}	9,5 10^{-10}
		S	5,0 10^{-4}	7,6 10^{-10}	9,5 10^{-10}		
Yb-167	0,292 h	M	5,0	6,5 10^{-12}	9,0 10^{-12}	5,0	6,7 10^{-12}

			10^{-4}			10^{-4}	
		S	5,0 10^{-4}	6,9 10^{-12}	9,5 10^{-12}		
Yb-169	32,0 d	M	5,0 10^{-4}	2,4 10^{-9}	2,1 10^{-9}	5,0 10^{-4}	7,1 10^{-10}
		S	5,0 10^{-4}	2,8 10^{-9}	2,4 10^{-9}		
Yb-175	4,19 d	M	5,0 10^{-4}	6,3 10^{-10}	6,4 10^{-10}	5,0 10^{-4}	4,4 10^{-10}
		S	5,0 10^{-4}	7,0 10^{-10}	7,0 10^{-10}		
Yb-177	1,90 h	M	5,0 10^{-4}	6,4 10^{-11}	8,8 10^{-11}	5,0 10^{-4}	9,7 10^{-11}
		S	5,0 10^{-4}	6,9 10^{-11}	9,4 10^{-11}		
Yb-178	1,23 h	M	5,0 10^{-4}	7,1 10^{-11}	1,0 10^{-10}	5,0 10^{-4}	1,2 10^{-10}
		S	5,0 10^{-4}	7,6 10^{-11}	1,1 10^{-10}		
Lutetium							
Lu-169	1,42 d	M	5,0 10^{-4}	3,5 10^{-10}	4,7 10^{-10}	5,0 10^{-4}	4,6 10^{-10}
		S	5,0 10^{-4}	3,8 10^{-10}	4,9 10^{-10}		
Lu-170	2,00 d	M	5,0 10^{-4}	6,4 10^{-10}	9,3 10^{-10}	5,0 10^{-4}	9,9 10^{-10}
		S	5,0 10^{-4}	6,7 10^{-10}	9,5 10^{-10}		
Lu-171	8,22 d	M	5,0 10^{-4}	7,6 10^{-10}	8,8 10^{-10}	5,0 10^{-4}	6,7 10^{-10}
		S	5,0 10^{-4}	8,3 10^{-10}	9,3 10^{-10}		
Lu-172	6,70 d	M	5,0 10^{-4}	1,4 10^{-9}	1,7 10^{-9}	5,0 10^{-4}	1,3 10^{-9}
		S	5,0 10^{-4}	1,5 10^{-9}	1,8 10^{-9}		
Lu-173	1,37 a	M	5,0 10^{-4}	2,0 10^{-9}	1,5 10^{-9}	5,0 10^{-4}	2,6 10^{-10}
		S	5,0 10^{-4}	2,3 10^{-9}	1,4 10^{-9}		

Lu-174	3,31 a	M	5,0 10^{-4}	4,0 10^{-9}	2,9 10^{-9}	5,0 10^{-4}	2,7 10^{-10}
		S	5,0 10^{-4}	3,9 10^{-9}	2,5 10^{-9}		
Lu-174m	142 d	M	5,0 10^{-4}	3,4 10^{-9}	2,4 10^{-9}	5,0 10^{-4}	5,3 10^{-10}
		S	5,0 10^{-4}	3,8 10^{-9}	2,6 10^{-9}		
Lu-176	3,60 10^{10}a	M	5,0 10^{-4}	6,6 10^{-8}	4,6 10^{-8}	5,0 10^{-4}	1,8 10^{-9}
		S	5,0 10^{-4}	5,2 10^{-8}	3,0 10^{-8}		
Lu-176m	3,68 h	M	5,0 10^{-4}	1,1 10^{-10}	1,5 10^{-10}	5,0 10^{-4}	1,7 10^{-10}
		S	5,0 10^{-4}	1,2 10^{-10}	1,6 10^{-10}		
Lu-177	6,71 d	M	5,0 10^{-4}	1,0 10^{-9}	1,0 10^{-9}	5,0 10^{-4}	5,3 10^{-10}
		S	5,0 10^{-4}	1,1 10^{-9}	1,1 10^{-9}		
Lu-177m	161 d	M	5,0 10^{-4}	1,2 10^{-8}	1,0 10^{-8}	5,0 10^{-4}	1,7 10^{-9}
		S	5,0 10^{-4}	1,5 10^{-8}	1,2 10^{-8}		
Lu-178	0,473 h	M	5,0 10^{-4}	2,5 10^{-11}	3,9 10^{-11}	5,0 10^{-4}	4,7 10^{-11}
		S	5,0 10^{-4}	2,6 10^{-11}	4,1 10^{-11}		
Lu-178m	0,378 h	M	5,0 10^{-4}	3,3 10^{-11}	5,4 10^{-11}	5,0 10^{-4}	3,8 10^{-11}
		S	5,0 10^{-4}	3,5 10^{-11}	5,6 10^{-11}		
Lu-179	4,59 h	M	5,0 10^{-4}	1,1 10^{-10}	1,6 10^{-10}	5,0 10^{-4}	2,1 10^{-10}
		S	5,0 10^{-4}	1,2 10^{-10}	1,6 10^{-10}		
Hafnium							
Hf-170	16,0 h	F	0,002	1,7 10^{-10}	2,9 10^{-10}	0,002	4,8 10^{-10}
		M	0,00	3,2 10^{-10}	4,3 10^{-10}		

			2				
Hf-172	1,87 a	F	0,002	3,2 10^{-8}	3,7 10^{-8}	0,002	1,0 10^{-9}
		M	0,002	1,9 10^{-8}	1,3 10^{-8}		
Hf-173	24,0 h	F	0,002	7,9 10^{-11}	1,3 10^{-10}	0,002	2,3 10^{-10}
		M	0,002	1,6 10^{-10}	2,2 10^{-10}		
Hf-175	70,0 d	F	0,002	7,2 10^{-10}	8,7 10^{-10}	0,002	4,1 10^{-10}
		M	0,002	1,1 10^{-9}	8,8 10^{-10}		
Hf-177m	0,856 h	F	0,002	4,7 10^{-11}	8,4 10^{-11}	0,002	8,1 10^{-11}
		M	0,002	9,2 10^{-11}	1,5 10^{-10}		
Hf-178m	31,0 a	F	0,002	2,6 10^{-7}	3,1 10^{-7}	0,002	4,7 10^{-9}
		M	0,002	1,1 10^{-7}	7,8 10^{-8}		
Hf-179m	25,1 d	F	0,002	1,1 10^{-9}	1,4 10^{-9}	0,002	1,2 10^{-9}
		M	0,002	3,6 10^{-9}	3,2 10^{-9}		
Hf-180m	5,50 h	F	0,002	6,4 10^{-11}	1,2 10^{-10}	0,002	1,7 10^{-10}
		M	0,002	1,4 10^{-10}	2,0 10^{-10}		
Hf-181	42,4 d	F	0,002	1,4 10^{-9}	1,8 10^{-9}	0,002	1,1 10^{-9}
		M	0,002	4,7 10^{-9}	4,1 10^{-9}		
Hf-182	9,00 10^{6} a	F	0,002	3,0 10^{-7}	3,6 10^{-7}	0,002	3,0 10^{-9}
		M	0,002	1,2 10^{-7}	8,3 10^{-8}		
Hf-182m	1,02 h	F	0,002	2,3 10^{-11}	4,0 10^{-11}	0,002	4,2 10^{-11}
		M	0,002	4,7 10^{-11}	7,1 10^{-11}		

Hf-183	1,07 h	F	0,002	2,6 10^{-11}	4,4 10^{-11}	0,002	7,3 10^{-11}
		M	0,002	5,8 10^{-11}	8,3 10^{-11}		
Hf-184	4,12 h	F	0,002	1,3 10^{-10}	2,3 10^{-10}	0,002	5,2 10^{-10}
		M	0,002	3,3 10^{-10}	4,5 10^{-10}		
Tantalum							
Ta-172	0,613 h	M	0,001	3,4 10^{-11}	5,5 10^{-11}	0,001	5,3 10^{-11}
		S	0,001	3,6 10^{-11}	5,7 10^{-11}		
Ta-173	3,65 h	M	0,001	1,1 10^{-10}	1,6 10^{-10}	0,001	1,9 10^{-10}
		S	0,001	1,2 10^{-10}	1,6 10^{-10}		
Ta-174	1,20 h	M	0,001	4,2 10^{-11}	6,3 10^{-11}	0,001	5,7 10^{-11}
		S	0,001	4,4 10^{-11}	6,6 10^{-11}		
Ta-175	10,5 h	M	0,001	1,3 10^{-10}	2,0 10^{-10}	0,001	2,1 10^{-10}
		S	0,001	1,4 10^{-10}	2,0 10^{-10}		
Ta-176	8,08 h	M	0,001	2,0 10^{-10}	3,2 10^{-10}	0,001	3,1 10^{-10}
		S	0,001	2,1 10^{-10}	3,3 10^{-10}		
Ta-177	2,36 d	M	0,001	9,3 10^{-11}	1,2 10^{-10}	0,001	1,1 10^{-10}
		S	0,001	1,0 10^{-10}	1,3 10^{-10}		
Ta-178	2,20 h	M	0,001	6,6 10^{-11}	1,1 10^{-10}	0,001	7,8 10^{-11}
		S	0,001	6,9 10^{-11}	1,1 10^{-10}		
Ta-179	1,82 a	M	0,001	2,0 10^{-10}	1,3 10^{-10}	0,001	6,5 10^{-11}
		S	0,00	5,2 10^{-10}	2,9 10^{-10}		

			1				
Ta-180	1,00 10^{13} a	M	0,001	6,0 10^{-9}	4,6 10^{-9}	0,001	8,4 10^{-10}
		S	0,001	2,4 10^{-8}	1,4 10^{-8}		
Ta-180m	8,10 h	M	0,001	4,4 10^{-11}	5,8 10^{-11}	0,001	5,4 10^{-11}
		S	0,001	4,7 10^{-11}	6,2 10^{-11}		
Ta-182	115 d	M	0,001	7,2 10^{-9}	5,8 10^{-9}	0,001	1,5 10^{-9}
		S	0,001	9,7 10^{-9}	7,4 10^{-9}		
Ta-182m	0,264 h	M	0,001	2,1 10^{-11}	3,4 10^{-11}	0,001	1,2 10^{-11}
		S	0,001	2,2 10^{-11}	3,6 10^{-11}		
Ta-183	5,10 d	M	0,001	1,8 10^{-9}	1,8 10^{-9}	0,001	1,3 10^{-9}
		S	0,001	2,0 10^{-9}	2,0 10^{-9}		
Ta-184	8,70 h	M	0,001	4,1 10^{-10}	6,0 10^{-10}	0,001	6,8 10^{-10}
		S	0,001	4,4 10^{-10}	6,3 10^{-10}		
Ta-185	0,816 h	M	0,001	4,6 10^{-11}	6,8 10^{-11}	0,001	6,8 10^{-11}
		S	0,001	4,9 10^{-11}	7,2 10^{-11}		
Ta-186	0,175 h	M	0,001	1,8 10^{-11}	3,0 10^{-11}	0,001	3,3 10^{-11}
		S	0,001	1,9 10^{-11}	3,1 10^{-11}		
Tungsten							
W-176	2,30 h	F	0,300	4,4 10^{-11}	7,6 10^{-11}	0,300	1,0 10^{-10}
						0,010	1,1 10^{-10}
W-177	2,25 h	F	0,300	2,6 10^{-11}	4,6 10^{-11}	0,300	5,8 10^{-11}

						0,010	$6,1\ 10^{-11}$
W-178	21,7 d	F	0,300	$7,6\ 10^{-11}$	$1,2\ 10^{-10}$	0,300	$2,2\ 10^{-10}$
						0,010	$2,5\ 10^{-10}$
W-179	0,625 h	F	0,300	$9,9\ 10^{-13}$	$1,8\ 10^{-12}$	0,300	$3,3\ 10^{-12}$
						0,010	$3,3\ 10^{-12}$
W-181	121 d	F	0,300	$2,8\ 10^{-11}$	$4,3\ 10^{-11}$	0,300	$7,6\ 10^{-11}$
						0,010	$8,2\ 10^{-11}$
W-185	75,1 d	F	0,300	$1,4\ 10^{-10}$	$2,2\ 10^{-10}$	0,300	$4,4\ 10^{-10}$
						0,010	$5,0\ 10^{-10}$
W-187	23,9 h	F	0,300	$2,0\ 10^{-10}$	$3,3\ 10^{-10}$	0,300	$6,3\ 10^{-10}$
						0,010	$7,1\ 10^{-10}$
W-188	69,4 d	F	0,300	$5,9\ 10^{-10}$	$8,4\ 10^{-10}$	0,300	$2,1\ 10^{-9}$
						0,010	$2,3\ 10^{-9}$
Rhenium							
Re-177	0,233 h	F	0,800	$1,0\ 10^{-11}$	$1,7\ 10^{-11}$	0,800	$2,2\ 10^{-11}$
		M	0,800	$1,4\ 10^{-11}$	$2,2\ 10^{-11}$		
Re-178	0,220 h	F	0,800	$1,1\ 10^{-11}$	$1,8\ 10^{-11}$	0,800	$2,5\ 10^{-11}$
		M	0,800	$1,5\ 10^{-11}$	$2,4\ 10^{-11}$		
Re-181	20,0 h	F	0,800	$1,9\ 10^{-10}$	$3,0\ 10^{-10}$	0,800	$4,2\ 10^{-10}$
		M	0,800	$2,5\ 10^{-10}$	$3,7\ 10^{-10}$		
Re-182	2,67 d	F	0,80	$6,8\ 10^{-10}$	$1,1\ 10^{-9}$	0,80	$1,4\ 10^{-9}$

			0			0	
		M	0,800	1,3 10^{-9}	1,7 10^{-9}		
Re-182	12,7 h	F	0,800	1,5 10^{-10}	2,4 10^{-10}	0,800	2,7 10^{-10}
		M	0,800	2,0 10^{-10}	3,0 10^{-10}		
Re-184	38,0 d	F	0,800	4,6 10^{-10}	7,0 10^{-10}	0,800	1,0 10^{-9}
		M	0,800	1,8 10^{-9}	1,8 10^{-9}		
Re-184m	165 d	F	0,800	6,1 10^{-10}	8,8 10^{-10}	0,800	1,5 10^{-9}
		M	0,800	6,1 10^{-9}	4,8 10^{-9}		
Re-186	3,78 d	F	0,800	5,3 10^{-10}	7,3 10^{-10}	0,800	1,5 10^{-9}
		M	0,800	1,1 10^{-9}	1,2 10^{-9}		
Re-186m	2,00 10^{5} a	F	0,800	8,5 10^{-10}	1,2 10^{-9}	0,800	2,2 10^{-9}
		M	0,800	1,1 10^{-8}	7,9 10^{-9}		
Re-187	5,00 10^{10} a	F	0,800	1,9 10^{-12}	2,6 10^{-12}	0,800	5,1 10^{-12}
		M	0,800	6,0 10^{-12}	4,6 10^{-12}		
Re-188	17,0 h	F	0,800	4,7 10^{-10}	6,6 10^{-10}	0,800	1,4 10^{-9}
		M	0,800	5,5 10^{-10}	7,4 10^{-10}		
Re-188m	0,3 10 h	F	0,800	1,0 10^{-11}	1,6 10^{-11}	0,800	3,0 10^{-11}
		M	0,800	1,4 10^{-11}	2,0 10^{-11}		
Re-189	1,01 d	F	0,800	2,7 10^{-10}	4,3 10^{-10}	0,800	7,8 10^{-10}
		M	0,800	4,3 10^{-10}	6,0 10^{-10}		

Osmium

Os-180	0,366 h	F	0,010	8,8 10^{-12}	1,6 10^{-11}	0,010	1,7 10^{-11}
		M	0,010	1,4 10^{-11}	2,4 10^{-11}		
		S	0,010	1,5 10^{-11}	2,5 10^{-11}		
Os-181	1,75 h	F	0,010	3,6 10^{-11}	6,4 10^{-11}	0,010	8,9 10^{-11}
		M	0,010	6,3 10^{-11}	9,6 10^{-11}		
		S	0,010	6,6 10^{-11}	1,0 10^{-10}		
Os-182	22,0 h	F	0,010	1,9 10^{-10}	3,2 10^{-10}	0,010	5,6 10^{-10}
		M	0,010	3,7 10^{-10}	5,0 10^{-10}		
		S	0,010	3,9 10^{-10}	5,2 10^{-10}		
Os-185	94,0 d	F	0,010	1,1 10^{-9}	1,4 10^{-9}	0,010	5,1 10^{-10}
		M	0,010	1,2 10^{-9}	1,0 10^{-9}		
		S	0,010	1,5 10^{-9}	1,1 10^{-9}		
Os-189m	6,00 h	F	0,010	2,7 10^{-12}	5,2 10^{-12}	0,010	1,8 10^{-11}
		M	0,010	5,1 10^{-12}	7,6 10^{-12}		
		S	0,010	5,4 10^{-12}	7,9 10^{-12}		
Os-191	15,4 d	F	0,010	2,5 10^{-10}	3,5 10^{-10}	0,010	5,7 10^{-10}
		M	0,010	1,5 10^{-9}	1,3 10^{-9}		
		S	0,010	1,8 10^{-9}	1,5 10^{-9}		
Os-191m	13,0 h	F	0,010	2,6 10^{-11}	4,1 10^{-11}	0,010	9,6 10^{-11}
		M	0,010	1,3 10^{-10}	1,3 10^{-10}		
		S	0,010	1,5 10^{-10}	1,4 10^{-10}		

Os-193	1,25 d	F	0,010	1,7 10^{-10}	2,8 10^{-10}	0,010	8,1 10^{-10}
		M	0,010	4,7 10^{-10}	6,4 10^{-10}		
		S	0,010	5,1 10^{-10}	6,8 10^{-10}		
Os-194	6,00 a	F	0,010	1,1 10^{-8}	1,3 10^{-8}	0,010	2,4 10^{-9}
		M	0,010	2,0 10^{-8}	1,3 10^{-8}		
		S	0,010	7,9 10^{-8}	4,2 10^{-8}		
Iridium							
Ir-182	0,250 h	F	0,010	1,5 10^{-11}	2,6 10^{-11}	0,010	4,8 10^{-11}
		M	0,010	2,4 10^{-11}	3,9 10^{-11}		
		S	0,010	2,5 10^{-11}	4,0 10^{-11}		
Ir-184	3,02 h	F	0,010	6,7 10^{-11}	1,2 10^{-11}	0,010	1,7 10^{-10}
		M	0,010	1,1 10^{-10}	1,8 10^{-10}		
		S	0,010	1,2 10^{-10}	1,9 10^{-10}		
Ir-185	14,0 h	F	0,010	8,8 10^{-11}	1,5 10^{-10}	0,010	2,6 10^{-10}
		M	0,010	1,8 10^{-10}	2,5 10^{-10}		
		S	0,010	1,9 10^{-10}	2,6 10^{-10}		
Ir-186	15,8 h	F	0,010	1,8 10^{-10}	3,3 10^{-10}	0,010	4,9 10^{-10}
		M	0,010	3,2 10^{-10}	4,8 10^{-10}		
		S	0,010	3,3 10^{-10}	5,0 10^{-10}		
Ir-186	1,75 h	F	0,010	2,5 10^{-11}	4,5 10^{-10}	0,010	6,1 10^{-11}
		M	0,010	4,3 10^{-11}	6,9 10^{-10}		

		S	0,010	$4,5\ 10^{-11}$	$7,1\ 10^{-11}$		
Ir-187	10,5 h	F	0,010	$4,0\ 10^{-11}$	$7,2\ 10^{-11}$	0,010	$1,2\ 10^{-10}$
		M	0,010	$7,5\ 10^{-11}$	$1,1\ 10^{-10}$		
		S	0,010	$7,9\ 10^{-11}$	$1,2\ 10^{-10}$		
Ir-188	1,73 d	F	0,010	$2,6\ 10^{-10}$	$4,4\ 10^{-10}$	0,010	$6,3\ 10^{-10}$
		M	0,010	$4,1\ 10^{-10}$	$6,0\ 10^{-10}$		
		S	0,010	$4,3\ 10^{-10}$	$6,2\ 10^{-10}$		
Ir-189	13,3 d	F	0,010	$1,1\ 10^{-10}$	$1,7\ 10^{-10}$	0,010	$2,4\ 10^{-10}$
		M	0,010	$4,8\ 10^{-10}$	$4,1\ 10^{-10}$		
		S	0,010	$5,5\ 10^{-10}$	$4,6\ 10^{-10}$		
Ir-190	12,1 d	F	0,010	$7,9\ 10^{-10}$	$1,2\ 10^{-9}$	0,010	$1,2\ 10^{-9}$
		M	0,010	$2,0\ 10^{-9}$	$2,3\ 10^{-9}$		
		S	0,010	$2,3\ 10^{-9}$	$2,5\ 10^{-9}$		
Ir-190m	3,10 h	F	0,010	$5,3\ 10^{-11}$	$9,7\ 10^{-11}$	0,010	$1,2\ 10^{-10}$
		M	0,010	$8,3\ 10^{-11}$	$1,4\ 10^{-10}$		
		S	0,010	$8,6\ 10^{-11}$	$1,4\ 10^{-10}$		
Ir-190m	1,20 h	F	0,010	$3,7\ 10^{-12}$	$5,6\ 10^{-12}$	0,010	$8,0\ 10^{-12}$
		M	0,010	$9,0\ 10^{-12}$	$1,0\ 10^{-11}$		
		S	0,010	$1,0\ 10^{-11}$	$1,1\ 10^{-11}$		
Ir-192	74,0 d	F	0,010	$1,8\ 10^{-9}$	$2,2\ 10^{-9}$	0,010	$1,4\ 10^{-9}$
		M	0,010	$4,9\ 10^{-9}$	$4,1\ 10^{-9}$		

		S	0,010	6,2 10^{-9}	4,9 10^{-9}		
Ir-192m	2,41 10^{2} a	F	0,010	4,8 10^{-9}	5,6 10^{-9}	0,010	3,1 10^{-10}
		M	0,010	5,4 10^{-9}	3,4 10^{-9}		
		S	0,010	3,6 10^{-8}	1,9 10^{-8}		
Ir-193m	11,9 d	F	0,010	1,0 10^{-10}	1,6 10^{-10}	0,010	2,7 10^{-10}
		M	0,010	1,0 10^{-9}	9,1 10^{-10}		
		S	0,010	1,2 10^{-9}	1,0 10^{-9}		
Ir-194	19,1 h	F	0,010	2,2 10^{-10}	3,6 10^{-10}	0,010	1,3 10^{-9}
		M	0,010	5,3 10^{-10}	7,1 10^{-10}		
		S	0,010	5,6 10^{-10}	7,5 10^{-10}		
Ir-194m	171 d	F	0,010	5,4 10^{-9}	6,5 10^{-9}	0,010	2,2 10^{-9}
		M	0,010	8,5 10^{-9}	6,5 10^{-9}		
		S	0,010	1,2 10^{-8}	7,5 10^{-9}		
Ir-195	2,50 h	F	0,010	2,6 10^{-11}	4,5 10^{-11}	0,010	1,0 10^{-10}
		M	0,010	6,7 10^{-11}	9,6 10^{-11}		
		S	0,010	7,2 10^{-11}	1,0 10^{-10}		
Ir-195m	3,80 h	F	0,010	6,5 10^{-11}	1,1 10^{-10}	0,010	2,1 10^{-10}
		M	0,010	1,6 10^{-10}	2,3 10^{-10}		
		S	0,010	1,7 10^{-10}	2,4 10^{-10}		
Platinum							
Pt-186	2,00 h	F	0,010	3,6 10^{-11}	6,6 10^{-11}	0,010	9,3 10^{-11}

Pt-188	10,2 d	F	0,010	4,3 10^{-10}	6,3 10^{-10}	0,010	7,6 10^{-10}
Pt-189	10,9 h	F	0,010	4,1 10^{-11}	7,3 10^{-11}	0,010	1,2 10^{-10}
Pt-191	2,80 d	F	0,010	1,1 10^{-10}	1,9 10^{-10}	0,010	3,4 10^{-10}
Pt-193	50,0 a	F	0,010	2,1 10^{-11}	2,7 10^{-11}	0,010	3,1 10^{-11}
Pt-193m	4,33 d	F	0,010	1,3 10^{-10}	2,1 10^{-10}	0,010	4,5 10^{-10}
Pt-195m	4,02 d	F	0,010	1,9 10^{-10}	3,1 10^{-10}	0,010	6,3 10^{-10}
Pt-197	18,3 h	F	0,010	9,1 10^{-11}	1,6 10^{-10}	0,010	4,0 10^{-10}
Pt-197m	1,57 h	F	0,010	2,5 10^{-11}	4,3 10^{-11}	0,010	8,4 10^{-11}
Pt-199	0,513 h	F	0,010	1,3 10^{-11}	2,2 10^{-11}	0,010	3,9 10^{-11}
Pt-200	12,5 h	F	0,010	2,4 10^{-10}	4,0 10^{-10}	0,010	1,2 10^{-9}
Gold							
Au-193	17,6 h	F	0,100	3,9 10^{-11}	7,1 10^{-11}	0,100	1,3 10^{-10}
		M	0,100	1,1 10^{-10}	1,5 10^{-10}		
		S	0,100	1,2 10^{-10}	1,6 10^{-10}		
Au-194	1,64 d	F	0,100	1,5 10^{-10}	2,8 10^{-10}	0,100	4,2 10^{-10}
		M	0,100	2,4 10^{-10}	3,7 10^{-10}		
		S	0,100	2,5 10^{-10}	3,8 10^{-10}		
Au-195	183 d	F	0,100	7,1 10^{-11}	1,2 10^{-10}	0,100	2,5 10^{-10}
		M	0,100	1,0 10^{-9}	8,0 10^{-10}		
		S	0,100	1,6 10^{-9}	1,2 10^{-9}		
Au-198	2,69 d	F	0,10	2,3 10^{-10}	3,9 10^{-10}	0,10	1,0 10^{-9}

			0			0	
		M	0,100	7,6 10^{-10}	9,8 10^{-10}		
		S	0,100	8,4 10^{-10}	1,1 10^{-9}		
Au-198m	2,30 d	F	0,100	3,4 10^{-10}	5,9 10^{-10}	0,100	1,3 10^{-9}
		M	0,100	1,7 10^{-9}	2,0 10^{-9}		
		S	0,100	1,9 10^{-9}	1,9 10^{-9}		
Au-199	3,14 d	F	0,100	1,1 10^{-10}	1,9 10^{-10}	0,100	4,4 10^{-10}
		M	0,100	6,8 10^{-10}	6,8 10^{-10}		
		S	0,100	7,5 10^{-10}	7,6 10^{-10}		
Au-200	0,807 h	F	0,100	1,7 10^{-11}	3,0 10^{-11}	0,100	6,8 10^{-11}
		M	0,100	3,5 10^{-11}	5,3 10^{-11}		
		S	0,100	3,6 10^{-11}	5,6 10^{-11}		
Au-200m	18,7 h	F	0,100	3,2 10^{-10}	5,7 10^{-10}	0,100	1,1 10^{-9}
		M	0,100	6,9 10^{-10}	9,8 10^{-10}		
		S	0,100	7,3 10^{-10}	1,0 10^{-9}		
Au-201	0,440 h	F	0,100	9,2 10^{-12}	1,6 10^{-11}	0,100	2,4 10^{-11}
		M	0,100	1,7 10^{-11}	2,8 10^{-11}		
		S	0,100	1,8 10^{-11}	2,9 10^{-11}		
Mercury							
Hg-193	3,50 h	F	0,400	2,6 10^{-11}	4,7 10^{-11}	1,000	3,1 10^{-11}
(organic)						0,400	6,6 10^{-11}
Hg-193	3,50 h	F	0,02	2,8 10^{-11}	5,0 10^{-11}	0,02	8,2 10^{-11}

			0			0	
(inorganic)		M	0,020	7,5 10^{-11}	1,0 10^{-10}		
Hg-193m	11,1 h	F	0,400	1,1 10^{-10}	2,0 10^{-10}	1,000	1,3 10^{-10}
(organic)						0,400	3,0 10^{-10}
Hg-193m	11,1 h	F	0,020	1,2 10^{-10}	2,3 10^{-10}	0,020	4,0 10^{-10}
(inorganic)		M	0,020	2,6 10^{-10}	3,8 10^{-10}		
Hg-194	2,60 10^{2} a	F	0,400	1,5 10^{-8}	1,9 10^{-8}	1,000	5,1 10^{-8}
(organic)						0,400	2,1 10^{-8}
Hg-194	2,60 10^{2} a	F	0,020	1,3 10^{-8}	1,5 10^{-8}	0,020	1,4 10^{-8}
(inorganic)		M	0,020	7,8 10^{-9}	5,3 10^{-9}		
Hg-195	9,90 h	F	0,400	2,4 10^{-11}	4,4 10^{-11}	1,000	3,4 10^{-11}
(organic)						0,400	7,5 10^{-11}
Hg-195	9,90 h	F	0,020	2,7 10^{-11}	4,8 10^{-11}	0,020	9,7 10^{-11}
(inorganic)		M	0,020	7,2 10^{-11}	9,2 10^{-11}		
Hg-195m	1,73 d	F	0,400	1,3 10^{-10}	2,2 10^{-10}	1,000	2,2 10^{-10}
(organic)						0,400	4,1 10^{-10}
Hg-195m	1,73 d	F	0,020	1,5 10^{-10}	2,6 10^{-10}	0,020	5,6 10^{-10}
(inorganic)		M	0,020	5,1 10^{-10}	6,5 10^{-10}		
Hg-197	2,67 d	F	0,400	5,0 10^{-11}	8,5 10^{-11}	1,000	9,9 10^{-11}
(organic)						0,400	1,7 10^{-10}
Hg-197	2,67 d	F	0,020	6,0 10^{-11}	1,0 10^{-10}	0,020	2,3 10^{-10}

(inorganic)		M	0,020	2,9 10^{-10}	2,8 10^{-10}		
Hg-197m	23,8 h	F	0,400	1,0 10^{-10}	1,8 10^{-10}	1,000	1,5 10^{-10}
(organic)						0,400	3,4 10^{-10}
Hg-197m	23,8 h	F	0,020	1,2 10^{-10}	2,1 10^{-10}	0,020	4,7 10^{-10}
(inorganic)		M	0,020	5,1 10^{-10}	6,6 10^{-10}		
Hg-199m	0,7 10 h	F	0,400	1,6 10^{-11}	2,7 10^{-11}	1,000	2,8 10^{-11}
(organic)						0,400	3,1 10^{-11}
Hg-199m	0,7 10 h	F	0,020	1,6 10^{-11}	2,7 10^{-11}	0,020	3,1 10^{-11}
(inorganic)		M	0,020	3,3 10^{-11}	5,2 10^{-11}		
Hg-203	46,6 d	F	0,400	5,7 10^{-10}	7,5 10^{-10}	1,000	1,9 10^{-9}
(organic)						0,400	1,1 10^{-9}
Hg-203	46,6 d	F	0,020	4,7 10^{-10}	5,9 10^{-10}	0,020	5,4 10^{-10}
(inorganic)		M	0,020	2,3 10^{-9}	1,9 10^{-9}		
Thallium							
Tl-194	0,550 h	F	1,000	4,8 10^{-12}	8,9 10^{-12}	1,000	8,1 10^{-12}
Tl-194m	0,546 h	F	1,000	2,0 10^{-11}	3,6 10^{-11}	1,000	4,0 10^{-11}
Tl-195	1,16 h	F	1,000	1,6 10^{-11}	3,6 10^{-11}	1,000	2,7 10^{-11}
Tl-197	2,84 h	F	1,000	1,5 10^{-11}	2,7 10^{-11}	1,000	2,3 10^{-11}
Tl-198	5,30 h	F	1,000	6,6 10^{-11}	1,2 10^{-10}	1,000	7,3 10^{-11}
Tl-198m	1,87 h	F	1,000	4,0 10^{-11}	7,3 10^{-11}	1,000	5,4 10^{-11}

Tl-199	7,42 h	F	1,000	$2{,}0\ 10^{-11}$	$3{,}7\ 10^{-11}$	1,000	$2{,}6\ 10^{-11}$
Tl-200	1,09 d	F	1,000	$1{,}4\ 10^{-10}$	$2{,}5\ 10^{-10}$	1,000	$2{,}0\ 10^{-10}$
Tl-201	3,04 d	F	1,000	$4{,}7\ 10^{-11}$	$7{,}6\ 10^{-11}$	1,000	$9{,}5\ 10^{-11}$
Tl-202	12,2 d	F	1,000	$2{,}0\ 10^{-10}$	$3{,}1\ 10^{-10}$	1,000	$4{,}5\ 10^{-10}$
Tl-204	3,78 a	F	1,000	$4{,}4\ 10^{-10}$	$6{,}2\ 10^{-10}$	1,000	$1{,}3\ 10^{-9}$
Lead							
Pb-195m	0,263 h	F	0,200	$1{,}7\ 10^{-11}$	$3{,}0\ 10^{-11}$	0,200	$2{,}9\ 10^{-11}$
Pb-198	2,40 h	F	0,200	$4{,}7\ 10^{-11}$	$8{,}7\ 10^{-11}$	0,200	$1{,}0\ 10^{-10}$
Pb-199	1,50 h	F	0,200	$2{,}6\ 10^{-11}$	$4{,}8\ 10^{-11}$	0,200	$5{,}4\ 10^{-11}$
Pb-200	21,5 h	F	0,200	$1{,}5\ 10^{-10}$	$2{,}6\ 10^{-10}$	0,200	$4{,}0\ 10^{-10}$
Pb-201	9,40 h	F	0,200	$6{,}5\ 10^{-11}$	$1{,}2\ 10^{-10}$	0,200	$1{,}6\ 10^{-10}$
Pb-202	$3{,}00\ 10^{5}$ a	F	0,200	$1{,}1\ 10^{-8}$	$1{,}4\ 10^{-8}$	0,200	$8{,}7\ 10^{-9}$
Pb-202m	3,62 h	F	0,200	$6{,}7\ 10^{-11}$	$1{,}2\ 10^{-10}$	0,200	$1{,}3\ 10^{-10}$
Pb-203	2,17 d	F	0,200	$9{,}1\ 10^{-11}$	$1{,}6\ 10^{-10}$	0,200	$2{,}4\ 10^{-10}$
Pb-205	$1{,}43\ 10^{-}$ a	F	0,200	$3{,}4\ 10^{-10}$	$4{,}1\ 10^{-10}$	0,200	$2{,}8\ 10^{-10}$
Pb-209	3,25 h	F	0,200	$1{,}8\ 10^{-11}$	$3{,}2\ 10^{-11}$	0,200	$5{,}7\ 10^{-11}$
Pb-210	22,3 a	F	0,200	$8{,}9\ 10^{-7}$	$1{,}1\ 10^{-6}$	0,200	$6{,}8\ 10^{-7}$
Pb-211	0,601 h	F	0,200	$3{,}9\ 10^{-9}$	$5{,}6\ 10^{-9}$	0,200	$1{,}8\ 10^{-10}$
Pb-212	10,6 h	F	0,200	$1{,}9\ 10^{-8}$	$3{,}3\ 10^{-8}$	0,200	$5{,}9\ 10^{-9}$

Pb-214	0,447 h	F	0,200	$2,9\ 10^{-9}$	$4,8\ 10^{-9}$	0,200	$1,4\ 10^{-10}$
Bismuth							
Bi-200	0,606 h	F	0,050	$2,4\ 10^{-11}$	$4,2\ 10^{-11}$	0,050	$5,1\ 10^{-11}$
		M	0,050	$3,4\ 10^{-11}$	$5,6\ 10^{-11}$		
Bi-201	1,80 h	F	0,050	$4,7\ 10^{-11}$	$8,3\ 10^{-11}$	0,050	$1,2\ 10^{-10}$
		M	0,050	$7,0\ 10^{-11}$	$1,1\ 10^{-10}$		
Bi-202	1,67 h	F	0,050	$4,6\ 10^{-11}$	$8,4\ 10^{-11}$	0,050	$8,9\ 10^{-11}$
		M	0,050	$5,8\ 10^{-11}$	$1,0\ 10^{-10}$		
Bi-203	11,8 h	F	0,050	$2,0\ 10^{-10}$	$3,6\ 10^{-10}$	0,050	$4,8\ 10^{-10}$
		M	0,050	$2,8\ 10^{-10}$	$4,5\ 10^{-10}$		
Bi-205	15,3 d	F	0,050	$4,0\ 10^{-10}$	$6,8\ 10^{-10}$	0,050	$9,0\ 10^{-10}$
		M	0,050	$9,2\ 10^{-10}$	$1,0\ 10^{-9}$		
Bi-206	6,24 d	F	0,050	$7,9\ 10^{-10}$	$1,3\ 10^{-9}$	0,050	$1,9\ 10^{-9}$
		M	0,050	$1,7\ 10^{-9}$	$2,1\ 10^{-9}$		
Bi-207	38,0 a	F	0,050	$5,2\ 10^{-10}$	$8,4\ 10^{-10}$	0,050	$1,3\ 10^{-9}$
		M	0,050	$5,2\ 10^{-9}$	$3,2\ 10^{-9}$		
Bi-210	5,01 d	F	0,050	$1,1\ 10^{-9}$	$1,4\ 10^{-9}$	0,050	$1,3\ 10^{-9}$
		M	0,050	$8,4\ 10^{-8}$	$6,0\ 10^{-8}$		
Bi-210m	$3,00\ 10^{6}$a	F	0,050	$4,5\ 10^{-8}$	$5,3\ 10^{-8}$	0,050	$1,5\ 10^{-8}$
		M	0,050	$3,1\ 10^{-6}$	$2,1\ 10^{-8}$		
Bi-212	1,01 h	F	0,05	$9,3\ 10^{-9}$	$1,5\ 10^{-8}$	0,05	$2,6\ 10^{-10}$

			0			0	
		M	0,050	3,0 10^{-8}	3,9 10^{-8}		
Bi-213	0,761 h	F	0,050	1,1 10^{-8}	1,8 10^{-8}	0,050	2,0 10^{-10}
		M	0,050	2,9 10^{-8}	4,1 10^{-8}		
Bi-214	0,332 h	F	0,050	7,2 10^{-9}	1,2 10^{-8}	0,050	1,1 10^{-10}
		M	0,050	1,4 10^{-8}	2,1 10^{-8}		
Polonium							
Po-203	0,612 h	F	0,100	2,5 10^{-11}	4,5 10^{-11}	0,100	5,2 10^{-11}
		M	0,100	3,6 10^{-11}	6,1 10^{-11}		
Po-205	1,80 h	F	0,100	3,5 10^{-11}	6,0 10^{-11}	0,100	5,9 10^{-11}
		M	0,100	6,4 10^{-11}	8,9 10^{-11}		
Po-207	5,83 h	F	0,100	6,3 10^{-11}	1,2 10^{-10}	0,100	1,4 10^{-10}
		M	0,100	8,4 10^{-11}	1,5 10^{-10}		
Po-210	138 d	F	0,100	6,0 10^{-7}	7,1 10^{-7}	0,100	2,4 10^{-7}
		M	0,100	3,0 10^{-6}	2,2 10^{-6}		
Astatine							
At-207	1,80 h	F	1,000	3,5 10^{-10}	4,4 10^{-10}	1,000	2,3 10^{-10}
		M	1,000	2,1 10^{-9}	1,9 10^{-9}		
At-211	7,21 h	F	1,000	1,6 10^{-8}	2,7 10^{-8}	1,000	1,1 10^{-8}
		M	1,000	9,8 10^{-8}	1,1 10^{-7}		
Francium							

Fr-222	0,240 h	F	1,000	1,4 10^{-8}	2,1 10^{-8}	1,000	7,1 10^{-10}
Fr-223	0,363 h	F	1,000	9,1 10^{-10}	1,3 10^{-9}	1,000	2,3 10^{-9}
Radium							
Ra-223	11,4 d	M	0,200	6,9 10^{-6}	5,7 10^{-6}	0,200	1,0 10^{-7}
Ra-224	3,66 d	M	0,200	2,9 10^{-6}	2,4 10^{-6}	0,200	6,5 10^{-8}
Ra-225	14,8 d	M	0,200	5,8 10^{-6}	4,8 10^{-6}	0,200	9,5 10^{-8}
Ra-226	1,60 10^{3} a	M	0,200	3,2 10^{-6}	2,2 10^{-6}	0,200	2,8 10^{-7}
Ra-227	0,703 h	M	0,200	2,8 10^{-10}	2,1 10^{-10}	0,200	8,4 10^{-11}
Ra-228	5,75 a	M	0,200	2,6 10^{-6}	1,7 10^{-6}	0,200	6,7 10^{-7}
Actinium							
Ac-224	2,90 h	F	5,0 10^{-4}	1,1 10^{-8}	1,3 10^{-8}	5,0 10^{-4}	7,0 10^{-10}
		M	5,0 10^{-4}	1,0 10^{-7}	8,9 10^{-8}		
		S	5,0 10^{-4}	1,2 10^{-7}	9,9 10^{-8}		
Ac-225	10,0 d	F	5,0 10^{-4}	8,7 10^{-7}	1,0 10^{-6}	5,0 10^{-4}	2,4 10^{-8}
		M	5,0 10^{-4}	6,9 10^{-6}	5,7 10^{-6}		
		S	5,0 10^{-4}	7,9 10^{-6}	6,5 10^{-6}		
Ac-226	1,21 d	F	5,0 10^{-4}	9,5 10^{-8}	2,2 10^{-7}	5,0 10^{-4}	1,0 10^{-8}
		M	5,0 10^{-4}	1,1 10^{-6}	9,2 10^{-7}		
		S	5,0 10^{-4}	1,2 10^{-6}	1,0 10^{-6}		
Ac-227	21,8 a	F	5,0 10^{-4}	5,4 10^{-4}	6,3 10^{-4}	5,0 10^{-4}	1,1 10^{-6}
		M	5,0	2,1 10^{-4}	1,5 10^{-4}		

			10^{-4}				
		S	5,0 10^{-4}	6,6 10^{-5}	4,7 10^{-5}		
Ac-228	6,13 h	F	5,0 10^{-4}	2,5 10^{-8}	2,9 10^{-8}	5,0 10^{-4}	4,3 10^{-10}
		M	5,0 10^{-4}	1,6 10^{-8}	1,2 10^{-8}		
		S	5,0 10^{-4}	1,4 10^{-8}	1,2 10^{-8}		
Thorium							
Th-226	0,515 h	M	5,0 10^{-4}	5,5 10^{-8}	7,4 10^{-8}	5,0 10^{-4}	3,5 10^{-10}
		S	2,0 10^{-4}	5,9 10^{-8}	7,8 10^{-8}	2,0 10^{-4}	3,6 10^{-10}
Th-227	18,7 d	M	5,0 10^{-4}	7,8 10^{-6}	6,2 10^{-6}	5,0 10^{-4}	8,9 10^{-9}
		S	2,0 10^{-4}	9,6 10^{-6}	7,6 10^{-6}	2,0 10^{-4}	8,4 10^{-9}
Th-228	1,91 a	M	5,0 10^{-4}	3,1 10^{-5}	2,3 10^{-5}	5,0 10^{-4}	7,0 10^{-8}
		S	2,0 10^{-4}	3,9 10^{-5}	3,2 10^{-5}	2,0 10^{-4}	3,5 10^{-8}
Th-229	7,34 10^{3} a	M	5,0 10^{-4}	9,9 10^{-5}	6,9 10^{-5}	5,0 10^{-4}	4,8 10^{-7}
		S	2,0 10^{-4}	6,5 10^{-5}	4,8 10^{-5}	2,0 10^{-4}	2,0 10^{-7}
Th-230	7,70 10^{4} a	M	5,0 10^{-4}	4,0 10^{-5}	2,8 10^{-5}	5,0 10^{-4}	2,1 10^{-7}
		S	2,0 10^{-4}	1,3 10^{-5}	7,2 10^{-6}	2,0 10^{-4}	8,7 10^{-8}
Th-231	1,06 d	M	5,0 10^{-4}	2,9 10^{-10}	3,7 10^{-10}	5,0 10^{-4}	3,4 10^{-10}
		S	2,0 10^{-4}	3,2 10^{-10}	4,0 10^{-10}	2,0 10^{-4}	3,4 10^{-10}
Th-232	1,40 10^{10} a	M	5,0 10^{-4}	4,2 10^{-5}	2,9 10^{-5}	5,0 10^{-4}	2,2 10^{-7}
		S	2,0 10^{-4}	2,3 10^{-5}	1,2 10^{-5}	2,0 10^{-4}	9,2 10^{-8}
Th-234	24,1 d	M	5,0 10^{-4}	6,3 10^{-9}	5,3 10^{-9}	5,0 10^{-4}	3,4 10^{-9}

		S	2,0 10^{-4}	7,3 10^{-9}	5,8 10^{-9}	2,0 10^{-4}	3,4 10^{-9}
Protactinium							
Pa-227	0,638 h	M	5,0 10^{-4}	7,0 10^{-8}	9,0 10^{-8}	5,0 10^{-4}	4,5 10^{-10}
		S	5,0 10^{-4}	7,6 10^{-8}	9,7 10^{-8}		
Pa-228	22,0 h	M	5,0 10^{-4}	5,9 10^{-8}	4,6 10^{-8}	5,0 10^{-4}	7,8 10^{-10}
		S	5,0 10^{-4}	6,9 10^{-8}	5,1 10^{-8}		
Pa-230	17,4 h	M	5,0 10^{-4}	5,6 10^{-7}	4,6 10^{-7}	5,0 10^{-4}	9,2 10^{-10}
		S	5,0 10^{-4}	7,1 10^{-7}	5,7 10^{-7}		
Pa-231	3,27 10^{4} a	M	5,0 10^{-4}	1,3 10^{-4}	8,9 10^{-5}	5,0 10^{-4}	7,1 10^{-7}
		S	5,0 10^{-4}	3,2 10^{-5}	1,7 10^{-5}		
Pa-232	1,31 d	M	5,0 10^{-4}	9,5 10^{-9}	6,8 10^{-9}	5,0 10^{-4}	7,2 10^{-10}
		S	5,0 10^{-4}	3,2 10^{-9}	2,0 10^{-9}		
Pa-233	27,0 d	M	5,0 10^{-4}	3,1 10^{-9}	2,8 10^{-9}	5,0 10^{-4}	8,7 10^{-10}
		S	5,0 10^{-4}	3,7 10^{-9}	3,2 10^{-9}		
Pa-234	6,70 h	M	5,0 10^{-4}	3,8 10^{-10}	5,5 10^{-10}	5,0 10^{-4}	5,1 10^{-10}
		S	5,0 10^{-4}	4,0 10^{-10}	5,8 10^{-10}		
Uranium							
U-230	20,8 d	F	0,020	3,6 10^{-7}	4,2 10^{-7}	0,020	5,5 10^{-8}
		M	0,020	1,2 10^{-5}	1,0 10^{-5}	0,002	2,8 10^{-8}
		S	0,002	1,5 10^{-5}	1,2 10^{-5}		
U-231	4,20 d	F	0,020	8,3 10^{-11}	1,4 10^{-10}	0,020	2,8 10^{-10}

		M	0,020	3,4 10^{-10}	3,7 10^{-10}	0,002	2,8 10^{-10}
		S	0,002	3,7 10^{-10}	4,0 10^{-10}		
U-232	72,0 a	F	0,020	4,0 10^{-6}	4,7 10^{-6}	0,020	3,3 10^{-7}
		M	0,020	7,2 10^{-6}	4,8 10^{-6}	0,002	3,7 10^{-8}
		S	0,002	3,5 10^{-5}	2,6 10^{-5}		
U-233	1,58 10^{5} a	F	0,020	5,7 10^{-7}	6,6 10^{-7}	0,020	5,0 10^{-8}
		M	0,020	3,2 10^{-6}	2,2 10^{-6}	0,002	8,5 10^{-9}
		S	0,002	8,7 10^{-6}	6,9 10^{-6}		
U-234	2,44 10^{5} a	F	0,020	5,5 10^{-7}	6,4 10^{-7}	0,020	4,9 10^{-8}
		M	0,020	3,1 10^{-6}	2,1 10^{-6}	0,002	8,3 10^{-9}
		S	0,002	8,5 10^{-6}	6,8 10^{-6}		
U-235	7,04 10^{8} a	F	0,020	5,1 10^{-7}	6,0 10^{-7}	0,020	4,6 10^{-8}
		M	0,020	2,8 10^{-6}	1,8 10^{-6}	0,002	8,3 10^{-9}
		S	0,002	7,7 10^{-6}	6,1 10^{-6}		
U-236	2,34 10^{7} a	F	0,020	5,2 10^{-7}	6,1 10^{-7}	0,020	4,6 10^{-8}
		M	0,020	2,9 10^{-6}	1,9 10^{-6}	0,002	7,9 10^{-9}
		S	0,002	7,9 10^{-6}	6,3 10^{-6}		
U-237	6,75 d	F	0,020	1,9 10^{-10}	3,3 10^{-10}	0,020	7,6 10^{-10}
		M	0,020	1,6 10^{-9}	1,5 10^{-9}	0,002	7,7 10^{-10}
		S	0,002	1,8 10^{-9}	1,7 10^{-9}		
U-238	4,47 10^{9} a	F	0,020	4,9 10^{-7}	5,8 10^{-7}	0,020	4,4 10^{-8}

		M	0,020	2,6 10^{-6}	1,6 10^{-6}	0,002	7,6 10^{-9}
		S	0,002	7,3 10^{-6}	5,7 10^{-6}		
U-239	0,392 h	F	0,020	1,1 10^{-11}	1,8 10^{-11}	0,020	2,7 10^{-11}
		M	0,020	2,3 10^{-11}	3,3 10^{-11}	0,002	2,8 10^{-11}
		S	0,002	2,4 10^{-11}	3,5 10^{-11}		
U-240	14,1 h	F	0,020	2,1 10^{-10}	3,7 10^{-10}	0,020	1,1 10^{-9}
		M	0,020	5,3 10^{-10}	7,9 10^{-10}	0,002	1,1 10^{-9}
		S	0,002	5,7 10^{-10}	8,4 10^{-10}		

Neptunium

Np-232	0,245 h	M	5,0 10^{-4}	4,7 10^{-11}	3,5 10^{-11}	5,0 10^{-4}	9,7 10^{-12}
Np-233	0,603 h	M	5,0 10^{-4}	1,7 10^{-12}	3,0 10^{-12}	5,0 10^{-4}	2,2 10^{-12}
Np-234	4,40 d	M	5,0 10^{-4}	5,4 10^{-10}	7,3 10^{-10}	5,0 10^{-4}	8,1 10^{-10}
Np-235	1,08 a	M	5,0 10^{-4}	4,0 10^{-10}	2,7 10^{-10}	5,0 10^{-4}	5,3 10^{-11}
Np-236	1,15 10^{5} a	M	5,0 10^{-4}	3,0 10^{-6}	2,0 10^{-6}	5,0 10^{-4}	1,7 10^{-8}
Np-236	22,5 h	M	5,0 10^{-4}	5,0 10^{-9}	3,6 10^{-9}	5,0 10^{-4}	1,9 10^{-10}
Np-237	2,14 10^{6} a	M	5,0 10^{-4}	2,1 10^{-5}	1,5 10^{-5}	5,0 10^{-4}	1,1 10^{-7}
Np-238	2,12 d	M	5,0 10^{-4}	2,0 10^{-9}	1,7 10^{-9}	5,0 10^{-4}	9,1 10^{-10}
Np-239	2,36 d	M	5,0 10^{-4}	9,0 10^{-10}	1,1 10^{-9}	5,0 10^{-4}	8,0 10^{-10}
Np-240	1,08 h	M	5,0 10^{-4}	8,7 10^{-11}	1,3 10^{-10}	5,0 10^{-4}	8,2 10^{-11}

Plutonium

Pu-234	8,80 h	M	$5,0\ 10^{-4}$	$1,9\ 10^{-8}$	$1,6\ 10^{-8}$	$5,0\ 10^{-4}$	$1,6\ 10^{-10}$
		S	$1,0\ 10^{-5}$	$2,2\ 10^{-8}$	$1,8\ 10^{-8}$	$1,0\ 10^{-5}$	$1,5\ 10^{-10}$
					$1,0\ 10^{-4}$	$1,6\ 10^{-10}$	
Pu-235	0,422 h	M	$5,0\ 10^{-4}$	$1,5\ 10^{-12}$	$2,5\ 10^{-12}$	$5,0\ 10^{-4}$	$2,1\ 10^{-12}$
		S	$1,0\ 10^{-5}$	$1,6\ 10^{-12}$	$2,6\ 10^{-12}$	$1,0\ 10^{-5}$	$2,1\ 10^{-12}$
					$1,0\ 10^{-4}$	$2,1\ 10^{-12}$	
Pu-236	2,85 a	M	$5,0\ 10^{-4}$	$1,8\ 10^{-5}$	$1,3\ 10^{-5}$	$5,0\ 10^{-4}$	$8,6\ 10^{-8}$
		S	$1,0\ 10^{-5}$	$9,6\ 10^{-6}$	$7,4\ 10^{-6}$	$1,0\ 10^{-5}$	$6,3\ 10^{-9}$
						$1,0\ 10^{-4}$	$2,1\ 10^{-8}$
Pu-237	45,3 d	M	$5,0\ 10^{-4}$	$3,3\ 10^{-10}$	$2,9\ 10^{-10}$	$5,0\ 10^{-4}$	$1,0\ 10^{-10}$
		S	$1,0\ 10^{-5}$	$3,6\ 10^{-10}$	$3,0\ 10^{-10}$	$1,0\ 10^{-5}$	$1,0\ 10^{-10}$
						$1,0\ 10^{-4}$	$1,0\ 10^{-10}$
Pu-238	87,7 a	M	$5,0\ 10^{-4}$	$4,3\ 10^{-5}$	$3,0\ 10^{-5}$	$5,0\ 10^{-4}$	$2,3\ 10^{-7}$
		S	$1,0\ 10^{-5}$	$1,5\ 10^{-5}$	$1,1\ 10^{-5}$	$1,0\ 10^{-5}$	$1,0\ 10^{-9}$
						$1,0\ 10^{-4}$	$4,9\ 10^{-8}$
Pu-239	$2,41\ 10^{4}$ a	M	$5,0\ 10^{-4}$	$4,7\ 10^{-5}$	$3,2\ 10^{-5}$	$5,0\ 10^{-4}$	$2,5\ 10^{-7}$
		S	$1,0\ 10^{-5}$	$1,5\ 10^{-5}$	$8,3\ 10^{-6}$	$1,0\ 10^{-5}$	$9,0\ 10^{-9}$
					$1,0\ 10^{-4}$	$5,3\ 10^{-8}$	
Pu-240	$6,54\ 10^{3}$ a	M	$5,0\ 10^{-4}$	$4,7\ 10^{-5}$	$3,2\ 10^{-5}$	$5,0\ 10^{-4}$	$2,5\ 10^{-7}$
		S	$1,0\ 10^{-5}$	$1,5\ 10^{-5}$	$8,3\ 10^{-6}$	$1,0\ 10^{-5}$	$9,0\ 10^{-9}$
						$1,0\ 10^{-4}$	$5,3\ 10^{-8}$

Pu-241	14,4 a	M	5,0 10^{-4}	8,5 10^{-7}	5,8 10^{-7}	5,0 10^{-4}	4,7 10^{-9}
		S	1,0 10^{-5}	1,6 10^{-7}	8,4 10^{-8}	1,0 10^{-5}	1,1 10^{-10}
						1,0 10^{-4}	9,6 10^{-10}
Pu-242	3,76 10^{5} a	M	5,0 10^{-4}	4,4 10^{-5}	3,1 10^{-5}	5,0 10^{-4}	2,4 10^{-7}
		S	1,0 10^{-5}	1,4 10^{-5}	7,7 10^{-6}	1,0 10^{-5}	8,6 10^{-9}
					1,0 10^{-4}	5,0 10^{-8}	
Pu-243	4,95 h	M	5,0 10^{-4}	8,2 10^{-11}	1,1 10^{-10}	1,0 10^{-4}	8,5 10^{-11}
		S	1,0 10^{-5}	8,5 10^{-11}	1,1 10^{-10}	1,0 10^{-5}	8,5 10^{-11}
						1,0 10^{-4}	8,5 10^{-11}
Pu-244	8,26 10^{7} a	M	5,0 10^{-4}	4,4 10^{-5}	3,0 10^{-5}	5,0 10^{-4}	2,4 10^{-7}
		S	1,0 10^{-5}	1,3 10^{-5}	7,4 10^{-6}	1,0 10^{-5}	1,1 10^{-8}
						1,0 10^{-4}	5,2 10^{-8}
Pu-245	10,5 h	M	5,0 10^{-4}	4,5 10^{-10}	6,1 10^{-10}	5,0 10^{-4}	7,2 10^{-10}
		S	1,0 10^{-5}	4,8 10^{-10}	6,5 10^{-10}	1,0 10^{-5}	7,2 10^{-10}
						1,0 10^{-4}	7,2 10^{-10}
Pu-246	10,9 d	M	5,0 10^{-4}	7,0 10^{-9}	6,5 10^{-9}	5,0 10^{-4}	3,3 10^{-9}
		S	1,0 10^{-5}	7,6 10^{-9}	7,0 10^{-9}	1,0 10^{-5}	3,3 10^{-9}
						1,0 10^{-4}	3,3 10^{-9}
Americium							
Am-237	1,22 h	M	5,0 10^{-4}	2,5 10^{-11}	3,6 10^{-11}	5,0 10^{-4}	1,8 10^{-11}
Am-238	1,63 h	M	5,0 10^{-4}	8,5 10^{-11}	6,6 10^{-11}	5,0 10^{-4}	3,2 10^{-11}

Am-239	11,9 h	M	5,0 10^{-4}	2,2 10^{-10}	2,9 10^{-10}	5,0 10^{-4}	2,4 10^{-10}
Am-240	2,12 d	M	5,0 10^{-4}	4,4 10^{-10}	5,9 10^{-10}	5,0 10^{-4}	5,8 10^{-10}
Am-241	4,32 10^{2} a	M	5,0 10^{-4}	3,9 10^{-5}	2,7 10^{-5}	5,0 10^{-4}	2,0 10^{-7}
Am-242	16,0 h	M	5,0 10^{-4}	1,6 10^{-8}	1,2 10^{-8}	5,0 10^{-4}	3,0 10^{-10}
Am-242m	1,52 10^{2} a	M	5,0 10^{-4}	3,5 10^{-5}	2,4 10^{-5}	5,0 10^{-4}	1,9 10^{-7}
Am-243	7,38 10^{3} a	M	5,0 10^{-4}	3,9 10^{-5}	2,7 10^{-5}	5,0 10^{-4}	2,0 10^{-7}
Am-244	10,1 h	M	5,0 10^{-4}	1,9 10^{-9}	1,5 10^{-9}	5,0 10^{-4}	4,6 10^{-10}
Am-244m	0,433 h	M	5,0 10^{-4}	7,9 10^{-11}	6,2 10^{-11}	5,0 10^{-4}	2,9 10^{-11}
Am-245	2,05 h	M	5,0 10^{-4}	5,3 10^{-11}	7,6 10^{-11}	5,0 10^{-4}	6,2 10^{-11}
Am-246	0,650 h	M	5,0 10^{-4}	6,8 10^{-11}	1,1 10^{-10}	5,0 10^{-4}	5,8 10^{-11}
Am-246m	0,417 h	M	5,0 10^{-4}	2,3 10^{-11}	3,8 10^{-11}	5,0 10^{-4}	3,4 10^{-11}
Curium							
Cm-238	2,40 h	M	5,0 10^{-4}	4,1 10^{-9}	4,8 10^{-9}	5,0 10^{-4}	8,0 10^{-11}
Cm-240	27,0 d	M	5,0 10^{-4}	2,9 10^{-8}	2,3 10^{-9}	5,0 10^{-4}	7,6 10^{-4}
Cm-241	32,8 d	M	5,0 10^{-4}	3,4 10^{-8}	2,6 10^{-8}	5,0 10^{-4}	9,1 10^{-10}
Cm-242	163 d	M	5,0 10^{-4}	4,8 10^{-6}	3,7 10^{-6}	5,0 10^{-4}	1,2 10^{-8}
Cm-243	28,5 a	M	5,0 10^{-4}	2,9 10^{-5}	2,0 10^{-3}	5,0 10^{-4}	1,5 10^{-7}
Cm-244	18,1 a	M	5,0 10^{-4}	2,5 10^{-5}	1,7 10^{-5}	5,0 10^{-4}	1,2 10^{-7}
Cm-245	8,50 10^{3} a	M	5,0 10^{-4}	4,0 10^{-5}	2,7 10^{-5}	5,0 10^{-4}	2,1 10^{-7}

Cm-246	4,73 10^{3} a	M	5,0 10^{-4}	4,0 10^{-5}	2,7 10^{-5}	5,0 10^{-4}	2,1 10^{-7}
Cm-247	1,56 10[illegible] a	M	5,0 10^{-4}	3,6 10^{-5}	2,5 10^{-5}	5,0 10^{-4}	1,9 10^{-7}
Cm-248	3,39 10^{3}a	M	5,0 10^{-4}	1,4 10^{-4}	9,5 10^{-5}	5,0 10^{-4}	7,7 10^{-7}
Cm-249	1,07h	M	5,0 10^{-4}	3,2 10^{-11}	5,1 10^{-11}	5,0 10^{-4}	3,1 10^{-11}
Cm-250	6,90 10^{3}a	M	5,0 10^{-4}	7,9 10^{-4}	5,4 10^{-4}	5,0 10^{-4}	4,4 10^{-6}
Berkelium							
Bk-245	4,94d	M	5,0 10^{-4}	2,0 10^{-9}	1,8 10^{-9}	5,0 10^{-4}	5,7 10^{-10}
Bk-246	1,83 d	M	5,0 10^{-4}	3,4 10^{-10}	4,6 10^{-10}	5,0 10^{-4}	4,8 10^{-10}
Bk-247	1,38 10^{3}a	M	5,0 10^{-4}	6,5 10^{-5}	4,5 10^{-5}	5,0 10^{-4}	3,5 10^{-7}
Bk-249	320 d	M	5,0 10^{-4}	1,5 10^{-7}	1,0 10^{-7}	5,0 10^{-4}	9,7 10^{-10}
Bk-250	3,22 h	M	5,0 10^{-4}	9,6 10^{-10}	7,1 10^{-10}	5,0 10^{-4}	1,4 10^{-10}
Californium							
Cf-244	0,323 h	M	5,0 10^{-4}	1,3 10^{-8}	1,8 10^{-8}	5,0 10^{-4}	7,0 10^{-11}
Cf-246	1,49 d	M	5,0 10^{-4}	4,2 10^{-7}	3,5 10^{-7}	5,0 10^{-4}	3,3 10^{-9}
Cf-248	334 d	M	5,0 10^{-4}	8,2 10^{-6}	6,1 10^{-9}	5,0 10^{-4}	2,8 10^{-8}
Cf-249	3,50 10^{2}a	M	5,0 10^{-4}	6,6 10^{-5}	4,5 10^{-5}	5,0 10^{-4}	3,5 10^{-7}
Cf-250	13,1 a	M	5,0 10^{-4}	3,2 10^{-5}	2,2 10^{-5}	5,0 10^{-4}	1,6 10^{-7}
Cf-251	8,98 10^{2}a	M	5,0 10^{-4}	6,7 10^{-5}	4,6 10^{-5}	5,0 10^{-4}	3,6 10^{-7}
Cf-252	2,64 a	M	5,0 10^{-4}	1,8 10^{-5}	1,3 10^{-5}	5,0 10^{-4}	9,0 10^{-8}

Cf-253	17,8 d	M	5,0 10^{-4}	1,2 10^{-6}	1,0 10^{-6}	5,0 10^{-4}	1,4 10^{-9}
Cf-254	60,5 d	M	5,0 10^{-4}	3,7 10^{-5}	2,2 10^{-5}	5,0 10^{-4}	4,0 10^{-7}
Einsteinium							
Es-250	2,10 h	M	5,0 10^{-4}	5,9 10^{-10}	4,2 10^{-10}	5,0 10^{-4}	2,1 10^{-11}
Es-251	1,38 d	M	5,0 10^{-4}	2,0 10^{-9}	1,7 10^{-9}	5,0 10^{-4}	1,7 10^{-10}
Es-253	20,5 d	M	5,0 10^{-4}	2,5 10^{-6}	2,1 10^{-6}	5,0 10^{-4}	6,1 10^{-9}
Es-254	276 d	M	5,0 10^{-4}	8,0 10^{-6}	6,0 10^{-6}	5,0 10^{-4}	2,8 10^{-8}
Es-254m	1,64 d	M	5,0 10^{-4}	4,4 10^{-7}	3,7 10^{-7}	5,0 10^{-4}	4,2 10^{-9}
Fermium							
Fm-252	22,7 h	M	5,0 10^{-4}	3,0 10^{-7}	2,6 10^{-7}	5,0 10^{-4}	2,7 10^{-9}
Fm-253	3,00 d	M	5,0 10^{-4}	3,7 10^{-7}	3,0 10^{-7}	5,0 10^{-4}	9,1 10^{-10}
Fm-254	3,24 h	M	5,0 10^{-4}	5,6 10^{-8}	7,7 10^{-8}	5,0 10^{-4}	4,4 10^{-10}
Fm-255	20,1 h	M	5,0 10^{-4}	2,5 10^{-7}	2,6 10^{-7}	5,0 10^{-4}	2,5 10^{-9}
Fm-257	101 d	M	5,0 10^{-4}	6,6 10^{-6}	5,2 10^{-9}	5,0 10^{-4}	1,5 10^{-8}
Mendelevium							
Md-257	5,20 h	M	5,0 10^{-4}	2,3 10^{-8}	2,0 10^{-8}	5,0 10^{-4}	1,2 10^{-10}
Md-258	55.0 d	M	5,0 10^{-4}	5,5 10^{-6}	4,4 10^{-9}	5,0 10^{-4}	1,3 10^{-8}

TABLE (C.2)

Effective does coefficients for soluble or reactive gases

Nuclide/chemical form	$t_{1/2}$	h(g) (Sv Bq^{-1})

Tritium gas	12,3 a	1,8 10^{-15}
Tritiated water	12,3 a	1,8 10^{-11}
Organically bound tritium	12,3 a	4,1 10^{-11}
Carbon-11 vapour	0,34 h	3,2 10^{-12}
Carbon-11 dioxide	0,34 h	2,2 10^{-12}
Carbon-11 monoxide	0,34 h	1,2 10^{-12}
Carbon-14 vapour	5,73 10^{3}a	5,8 10^{-10}
Carbon-14 dioxide	5,73 10^{3}a	6,5 10^{-12}
Carbon-14 monoxide	5,73 10^{3}a	8,0 10^{-13}
Sulphur-35 vapour	87,4 d	1,2 10^{-10}
Nickel-56 carbonyl	6,10 d	1,2 10^{-9}
Nickel-57 carbonyl	1,50 d	5,6 10^{-10}
Nickel-59 carbonyl	7,50 10^{4}a	8,3 10^{-10}
Nickel-63 carbonyl	96,0 a	2,0 10^{-9}
Nickel-65 carbonyl	2,52 h	3,6 10^{-10}
Nickel-66 carbonyl	2,27 d	1,6 10^{-9}
Iodine-120 vapour	1,35 h	3,0 10^{-10}
Iodine-120m vapour	0,88 h	1,8 10^{-10}
Iodine-121 vapour	2,12 h	8,6 10^{-11}
Iodine-123 vapour	13,2 h	2,1 10^{-10}
Iodine-124 vapour	4,18 d	1,2 10^{-8}
Iodine-125 vapour	60,1 d	1,4 10^{-8}
Iodine-126 vapour	13,0 d	2,6 10^{-8}
Iodine-128 vapour	0,42 h	6,5 10^{-11}
Iodine-129 vapour	1,57 10^{7} a	9,6 10^{-8}
Iodine-130 vapour	12,4 h	1,9 10^{-9}
Iodine-131 vapour	8,04 d	2,0 10^{-8}
Iodine-132 vapour	2,30 h	3,1 10^{-10}
Iodine-132m vapour	1,39 h	2,7 10^{-10}
Iodine-133 vapour	20,8 h	4,0 10^{-9}

Iodine-134 vapour	0,88 h	$1{,}5\ 10^{-10}$
Iodine-135 vapour	6,61 h	$9{,}2\ 10^{-10}$
Mercury-193 vapour	3,50 h	$1{,}1\ 10^{-9}$
Mercury-193m vapour	11,1 h	$3{,}1\ 10^{-9}$
Mercury-194 vapour	$2{,}60\ 10^{2}$a	$4{,}0\ 10^{-8}$
Mercury-195 vapour	9,90 h	$1{,}4\ 10^{-9}$
Mercury-195m vapour	1,73 d	$8{,}2\ 10^{-9}$
Mercury-197 vapour	2,67 d	$4{,}4\ 10^{-9}$
Mercury-197m vapour	23,8 h	$5{,}8\ 10^{-9}$
Mercury-199m vapour	0,71 h	$1{,}8\ 10^{-10}$
Mercury-203 vapour	46,60 d	$7{,}0\ 10^{-9}$

TABLE (D)

Compounds and f_1 values used for the calculation of ingestion dose coefficients

Element	f_1	Compounds
Hydrogen	1,000	Ingestion of tritiated water
	1,000	Organically bound tritium
Beryllium	0,005	All compounds
Carbon	1,000	Labelled organic compounds
Fluorine	1,000	All compounds
Sodium	1,000	All compounds
Magnesium	0,500	All compounds
Aluminium	0,010	All compounds
Silicon	0,010	All compounds
Phosphorus	0,800	All compounds
Sulphur	0,800	Inorganic compounds
	0,100	Elemental sulphur
	1,000	Organic sulphur
Chlorine	1,000	All compounds
Potassium	1,000	All compounds
Calcium	0,300	All compounds

Scandium	1,0 10^{-4}	All compounds
Titanium	0,010	All compounds
Vanadium	0,010	All compounds
Chromium	0,100	Hexavalent compounds
	0,010	Trivalent compounds
Manganese	0,100	All compounds
Iron	0,100	All compounds
Cobalt	0,100	Unspecified compounds
	0,050	Oxides, hydroxides and inorganic compounds
Nickel	0,050	All compounds
Copper	0,500	All compounds
Zinc	0,500	All compounds
Gallium	0,001	All compounds
Germanium	1,000	All compounds
Arsenic	0,500	All compounds
Selenium	0,800	Unspecified compounds
	0,050	Elemental selenium and selenides
Bromine	1,000	All compounds
Rubidium	1,000	All compounds
Strontium	0,300	Unspecified compounds
	0,010	Strontium titanate (Strontium titanate ($SrTiO_3$)
Yttrium	1,0 10^{-4}	All compounds
Zirconium	0,002	All compounds
Niobium	0,010	All compounds
Molybdenum	0,800	Unspecified compounds
	0,050	Molybdenum sulphide
Technetium	0,800	All compounds
Ruthenium	0,050	All compounds
Rhodium	0,050	All compounds
Palladium	0,005	All compounds
Silver	0,050	All compounds

Cadmium	0,050	All inorganic compounds
Indium	0,020	All compounds
Tin	0,020	All compounds
Antimony	0,100	All compounds
Tellurium	0,300	All compounds
Iodine	1,000	All compounds
Caesium	1,000	All compounds
Barium	0,100	All compounds
Lanthanum	$5{,}0\ 10^{-4}$	All compounds
Cerium	$5{,}0\ 10^{-4}$	All compounds
Praseodymium	$5{,}0\ 10^{-4}$	All compounds
Neodymium	$5{,}0\ 10^{-4}$	All compounds
Promethium	$5{,}0\ 10^{-4}$	All compounds
Samarium	$5{,}0\ 10^{-4}$	All compounds
Europium	$5{,}0\ 10^{-4}$	All compounds
Gadolinium	$5{,}0\ 10^{-4}$	All compounds
Terbium	$5{,}0\ 10^{-4}$	All compounds
Dysprosium	$5{,}0\ 10^{-4}$	All compounds
Holmium	$5{,}0\ 10^{-4}$	All compounds
Erbium	$5{,}0\ 10^{-4}$	All compounds
Thulium	$5{,}0\ 10^{-4}$	All compounds
Ytterbium	$5{,}0\ 10^{-4}$	All compounds
Lutetium	$5{,}0\ 10^{-4}$	All compounds
Hafnium	0,002	All compounds
Tantalum	0,001	All compounds
Tungsten	0,300	Unspecified compounds
	0,010	Tungstic acid
Rhenium	0,800	All compounds
Osmium	0,010	All compounds
Iridium	0,010	All compounds

Platinum	0,010	All compounds
Gold	0,100	All compounds
Mercury	0,020	All inorganic compounds
Mercury	1,000	Methyl mercury
	0,400	Unspecified organic compounds
Thallium	1,000	All compounds
Lead	0,200	All compounds
Bismuth	0,050	All compounds
Polonium	0,100	All compounds
Astatine	1,000	All compounds
Francium	1,000	All compounds
Radium	0,200	All compounds
Actinium	$5{,}0\ 10^{-4}$	All compounds
Thorium	$5{,}0\ 10^{-4}$	Unspecified compounds
	$2{,}0\ 10^{-4}$	Oxides and hydroxides
Protactinium	$5{,}0\ 10^{-4}$	All compounds
Uranium	0,020	Unspecified compounds
	0,002	Most tetravalent compounds, e.g., UO_2, U_3O_8,UF_4
Neptunium	$5{,}0\ 10^{-4}$	All compounds
Plutonium	$5{,}0\ 10^{-4}$	Unspecified compounds
	$1{,}0\ 10^{-4}$	Nitrates
	$1{,}0\ 10^{-4}$	Insoluble oxides
Americium	$5{,}0\ 10^{-4}$	All compounds
Curium	$5{,}0\ 10^{-4}$	All compounds
Berkelium	$5{,}0\ 10^{-4}$	All compounds
Californium	$5{,}0\ 10^{-4}$	All compounds
Einsteinium	$5{,}0\ 10^{-4}$	All compounds
Fermium	$5{,}0\ 10^{-4}$	All compounds
Mendelevium	$5{,}0\ 10^{-4}$	All compounds

TABLE (E)

Compounds, lung absorption types and f_1 values used for the calculation of inhalation dose coefficients

Element	Absorption type (s)	f_1	Compounds
Beryllium	M	0,005	Unspecified compounds
	S	0,005	Oxides, halides and nitrates
Fluorine	F	1,000	Determined by combining cation
	M	1,000	Determined by combining cation
	S	1,000	Determined by combining cation
Sodium	F	1,000	All compounds
Magnesium	F	0,500	Unspecified compounds
	M	0,500	Oxides, hydroxides, carbides, halides and nitrates
Aluminium	F	0,010	Unspecified compounds
	M	0,010	Oxides, hydroxides, carbides, halides, nitrates and metallic aluminium
Silicon	F	0,010	Unspecified compounds
	M	0,010	Oxides, hydroxides, carbides and nitrates
	S	0,010	Aluminosilicate glass aerosol
Phosphorus	F	0,800	Unspecified compounds
	M	0,800	Some phosphates: determined by combining cation
Sulphur	F	0,800	Sulphides and sulphates: determined by combining cation
	M	0,800	Elemental sulphur. Sulphides and sulphates: determined by combining cation
Chlorine	F	1,000	Determined by combining cation
	M	1,000	Determined by combining cation
Potassium	F	1,000	All compounds
Calcium	M	0,300	All compounds
Scandium	S	1,0 10^{-4}	All compounds
Titanium	F	0,010	Unspecified compounds
	M	0,010	Oxides, hydroxides, carbides, halides and nitrates
	S	0,010	Strontium titanate ($SrTiO_3$)
Vanadium	F	0,010	Unspecified compounds
	M	0,010	Oxides, hydroxides, carbides and halides
Chromium	F	0,100	Unspecified compounds

	M	0,100	Halides and nitrates
	S	0,100	Oxides and hydroxides
Manganese	F	0,100	Unspecified compounds
	M	0,100	Oxides, hydroxides, halides and nitrates
Iron	F	0,100	Unspecified compounds
	M	0,100	Oxides, hydroxides and halides
Cobalt	M	0,100	Unspecified compounds
	S	0,050	Oxides, hydroxides, halides and nitrates
Nickel	F	0,050	Unspecified compounds
	M	0,050	Oxides, hydroxides and carbides
Copper	F	0,500	Unspecified inorganic compounds
	M	0,500	Sulphides, halides and nitrates
	S	0,500	Oxides and hydroxides
Zinc	S	0,500	All compounds
Gallium	F	0,001	Unspecified compounds
	M	0,001	Oxides, hydroxides, carbides, halides and nitrates
Germanium	F	1,000	Unspecified compounds
	M	1,000	Oxides, sulphides and halides
Arsenic	M	0,500	All compounds
Selenium	F	0,800	Unspecified inorganic compounds
	M	0,800	Elemental selenium, oxides, hydroxides and carbides
Bromine	F	1,000	Determined by combining cation
	M	1,000	Determined by combining cation
Rubidium	F	1,000	All compounds
Strontium	F	0,800	Unspecified compounds
	S	0,010	Strontium titanate ($SrTiO_3$)
Yttrium	M	$1{,}0\ 10^{-4}$	Unspecified compounds
	S	$1{,}0\ 10^{-4}$	Oxides and hydroxides
Zirconium	F	0,002	Unspecified compounds
	M	0,002	Oxides, hydroxides, halides and nitrates
	S	0,002	Zirconium carbide
Niobium	M	0,010	Unspecified compounds

	S	0,010	Oxides and hydroxides
Molybdenum	F	0,800	Unspecified compounds
	S	0,050	Molybdenum sulphide, oxides and hydroxides
Technetium	F	0,800	Unspecified compounds
	M	0,800	Oxides, hydroxides, halides and nitrates
Ruthenium	F	0,050	Unspecified compounds
	M	0,050	Halides
	S	0,050	Oxides and hydroxides
Rhodium	F	0,050	Unspecified compounds
	M	0,050	Halides
	S	0,050	Oxides and hydroxides
Palladium	F	0,005	Unspecified compounds
	M	0,005	Nitrates and halides
	S	0,005	Oxides and hydroxides
Silver	F	0,050	Unspecified compounds and metallic silver
	M	0,050	Nitrates and sulphides
	S	0,050	Oxides and hydroxides, carbides
Cadmium	F	0,050	Unspecified compounds
	M	0,050	Sulphides, halides and nitrates
	S	0,050	Oxides and hydroxides
Indium	F	0,020	Unspecified compounds
	M	0,020	Oxides, hydroxides, halides and nitrates
Tin	F	0,020	Unspecified compounds
	M	0,020	Stannic phosphate, sulphides, oxides, hydroxides, halides and nitrates
Antimony	F	0,100	Unspecified compounds
	M	0,010	Oxides, hydroxides, halides, sulphides, sulphates and nitrates
Tellurium	F	0,300	Unspecified compounds
	M	0,300	Oxides, hydroxides and nitrates
Iodine	F	1,000	All compounds
Caesium	F	1,000	All compounds
Barium	F	0,100	All compounds
Lanthanum	F	$5{,}0\ 10^{-4}$	Unspecified compounds
	M	5,0	Oxides and hydroxides

		10^{-4}	
Cerium	M	5,0 10^{-4}	Unspecified compounds
	S	5,0 10^{-4}	Oxides, hydroxides and fluorides
Praseodymium	M	5,0 10^{-4}	Unspecified compounds
	S	5,0 10^{-4}	Oxides, hydroxides, carbides and fluorides
Neodymium	M	5,0 10^{-4}	Unspecified compounds
	S	5,0 10^{-4}	Oxides, hydroxides, carbides and fluorides
Promethium	M	5,0 10^{-4}	Unspecified compounds
	S	5,0 10^{-4}	Oxides, hydroxides, carbides and fluorides
Samarium	M	5,0 10^{-4}	All compounds
Europium	M	5,0 10^{-4}	All compounds
Gadolinium	F	5,0 10^{-4}	Unspecified compounds
	M	5,0 10^{-4}	Oxides, hydroxides and fluorides
Terbium	M	5,0 10^{-4}	All compounds
Dysprosium	M	5,0 10^{-4}	All compounds
Holmium	M	5,0 10^{-4}	Unspecified compounds
Erbium	M	5,0 10^{-4}	All compounds
Thulium	M	5,0 10^{-4}	All compounds
Ytterbium	M	5,0 10^{-4}	Unspecified compounds
	S	5,0 10^{-4}	Oxides, hydroxides and fluorides

Lutetium	M	5,0 10^{-4}	Unspecified compounds
	S	5,0 10^{-4}	Oxides, hydroxides and fluorides
Hafnium	F	0,002	Unspecified compounds
	M	0,002	Oxides, hydroxides, halides, carbides and nitrates
Tantalum	M	0,001	Unspecified compounds
	S	0,001	Elemental tantalum, oxides, hydroxides, halides, carbides, nitrates and nitrides
Tungsten	F	0,300	All compounds
Rhenium	F	0,800	Unspecified compounds
	M	0,800	Oxides, hydroxides, halides and nitrates
Osmium	F	0,010	Unspecified compounds
	M	0,010	Halides and nitrates
	S	0,010	Oxides and hydroxides
Iridium	F	0,010	Unspecified compounds
	M	0,010	Metallic iridium, halides and nitrates
	S	0,010	Oxides and hydroxides
Platinum	F	0,010	All compounds
Gold	F	0,100	Unspecified compounds
	M	0,100	Halides and nitrates
	S	0,100	Oxides and hydroxides
Mercury	F	0,020	Sulphates
	M	0,020	Oxides, hydroxides, halides, nitrates and sulphides
Mercury	F	0,400	All organic compounds
Thallium	F	1,000	All compounds
Lead	F	0,200	All compounds
Bismuth	F	0,050	Bismuth nitrate
	M	0,050	Unspecified compounds
Polonium	F	0,100	Unspecified compounds
	M	0,100	Oxides, hydroxides and nitrates
Astatine	F	1,000	Determined by combining cation
	M	1,000	Determined by combining cation
Francium	F	1,000	All compounds

Radium	M	0,200	All compounds
Actinium	F	5,0 10^{-4}	Unspecified compounds
	M	5,0 10^{-4}	Halides and nitrates
	S	5,0 10^{-4}	Oxides and hydroxides
Thorium	M	5,0 10^{-4}	Unspecified compounds
	S	2,0 10^{-4}	Oxides and hydroxides
Protactinium	M	5,0 10^{-4}	Unspecified compounds
	S	5,0 10^{-4}	Oxides and hydroxides
Uranium	F	0,020	Most hexavalent compounds, e.g., UF[illegible], UO_2F_2 and $UO_2\ (NO_3)_2$
	M	0,020	Less soluble compounds, e.g., UO_3, UF_4, UCI_4 and most other hexavalent compounds
	S	0,002	Highly insoluble compounds, e.g., UO_2 and U_3O_3
Neptunium	M	5,0 10^{-4}	All compounds
Plutonium	M	5,0 10^{-4}	Unspecified compounds
	S	1,0 10^{-5}	Insoluble oxides
Americium	M	5,0 10^{-4}	All compounds
Curium	M	5,0 10^{-4}	All compounds
Berkelium	M	5,0 10^{-4}	All compounds
Californium	M	5,0 10^{-4}	All compounds
Einsteinium	M	5,0 10^{-4}	All compounds
Fermium	M	5,0 10^{-4}	All compounds
Mendelevium	M	5,0	All compounds

10^{-4}

GIVEN under my hand,

___________________________2000.

JOE JACOB
Minister of State at the Department of Public Enterprise

[1] O.J. No. 159, 29.6.1996. p. 1.

[2] O.J. No. L349, 13.12.1990. p.21

(*) The values have been developed from a reference population of equal numbers of both sexes and a wide range of ages. In the definition of effective dose they apply to workers, to the whole population and to either sex.

(**) For the purposes of calculation, the remainder is composed of the following additional tissues and organs: adrenals, brain, upper large intestine, small intestine, kidney, muscle, pancreas, spleen, thymus and urerus. The list includes organs which are likely to be selectively irradiated. Some organs in the list are known to be susceptible to cancer induction. If other tissues and organs subsequently become identified as having a significant risk of induced cancer they will then be included either with a specific W_T or in this additional list constituting the remainder. The latter may also include other tissues or organs selectively irradiated.

(***) In those exceptional cases in which a single one of the remainder tissues or organs receives an equivalent dose in excess of the highest dose in any of the 12 organs for which a weighting factor is specified, a weighting factor of 0,025 should be applied to that tissue or organ and a weighting factor of 0,025 to the average dose in the rest of the remainder as defined above.

(*) The values have been developed from a reference population of equal numbers of both sexes and a wide range of ages. In the definition of effective dose they apply to workers, to the whole population and to either sex.

denotes organically bound tritium.

(a) The f_l value for 1 to 15 year olds is 0,4.

(a) The f_l value for 1 to 15 year olds is 0.2.

(b) The f_l value for 1 to 15 year olds is 0.3.

[a] The f_1 value for 1 to 15 year olds is 0,4.

[3] The f_1 value for 1 to 15 year olds is 0,3.

[a] The f_1 value for to 15 year olds is 0,4.

[b] The f_1 value for 1 to 15 year olds is 0,3.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

[a] The f_1 value for 1 to 15 years olds for Type F is 0,4.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

[a] The f_1 value for 1 to 15 year olds for Type F is 0,2

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

The f_1 value for 1 to 15 year for Type F is 0,3.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

(a) The f_1 value for 1 to 15 years olds for Type F is 0,4.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

(4) The f_1 value for 1 to 15 year olds for Type F is 0.3.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

[a] The f_1 value for 1 to 15 year olds for type F is 0,4.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

[a] The f_1 value for 1 to 15 year olds for type F is 0,3.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

<u>Type F denotes fast absorption from lung.</u>

<u>Type M denotes moderate absorption from lung.</u>

<u>Type S denotes slow absorption from lung.</u>

<u>Type F denotes fast absorption from lung.</u>

<u>Type M denotes moderate absorption from lung.</u>

<u>Type S denotes slow absorption from lung.</u>

<u>Type F denotes fast absorption from lung.</u>

<u>Type M denotes moderate absorption from lung.</u>

<u>Type S denotes slow absorption from lung.</u>

<u>Type F denotes fast absorption from lung.</u>

<u>Type M denotes moderate absorption from lung.</u>

<u>Type S denotes slow absorption from lung.</u>

<u>Type F denotes fast absorption from lung.</u>

<u>Type M denotes moderate absorption from lung.</u>

<u>Type S denotes slow absorption from lung.</u>

<u>Type F denotes fast absorption from lung.</u>

<u>Type M denotes moderate absorption from lung.</u>

<u>Type S denotes slow absorption from lung.</u>

<u>Type F denotes fast absorption from lung.</u>

<u>Type M denotes moderate absorption from lung.</u>

<u>Type S denotes slow absorption from lung.</u>

<u>Type F denotes fast absorption from lung.</u>

<u>Type M denotes moderate absorption from lung.</u>

<u>Type S denotes slow absorption from lung.</u>

<u>Type F denotes fast absorption from lung.</u>

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

denotes organically bound tritium.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type F denotes fast absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type S denotes slow absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.

Type M denotes moderate absorption from lung.