

Health and Safety Research Division

SPECIFIC ABSORBED FRACTIONS OF ENERGY AT VARIOUS AGES
FROM INTERNAL PHOTON SOURCES.

VII. ADULT MALE.

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EDITORIAL NOTE

This PDF was constructed from the original issuance of ORNL/TM-8381 Vols. 2-7. However, the numerical data tabulated here are given to an additional digit as an aid in interpolation. The data tables shown here are the values in current use (January 2002) at ORNL. Because of the change in the tables the pagination of the PDF no longer corresponds to the original report.

ABSTRACT

This report is the seventh volume of a series in which specific absorbed fractions (Φ 's) in various organs of the body ("target organs") from sources of monoenergetic photons in various other organs ("source organs") are tabulated. The first volume (ORNL/TM-8381:Vol. 1) outlines various methods used to compute the Φ -values and describes how the "best" estimates recommended by us are chosen. In this volume Φ -values are tabulated for an adult male (70-kg Reference Man). In companion volumes Φ -values are tabulated for the newborn, for ages 1, 5, 10, and 15 years, and for an adult female. These Φ -values can be used in calculating the photon component of the dose-equivalent rate in a given target organ from a given radionuclide that is present in a given source organ. The methods used to calculate Φ are similar to those used by Snyder et al. (1974) for an adult. However, an important difference involves the dosimetry for radiosensitive tissues in the skeleton. The International Commission on Radiological Protection recognizes, in the radiation protection system of its Publication 26 (1977), that the endosteal, or "bone surface," cells are the tissue at risk for bone cancer. We have applied the dosimetry methods that Spiers and co-workers developed for beta-emitting radionuclides deposited in bone to follow the transport of secondary electrons (freed by photon interactions) through the microscopic structure of the skeleton. With these methods we can estimate Φ in the endosteal cells and can better estimate Φ in the active marrow; the latter is overestimated with the methods of Snyder et al. at photon energies below 200 keV.

INTRODUCTION

This report gives tables of specific absorbed fractions (Φ 's) in various organs of the body ("target organs") from sources of monoenergetic photons in various other organs ("source organs") for an adult male (70-kg Reference Man). These Φ -values can be used in calculating the photon component of the dose-equivalent rate in a given target organ from a given radionuclide that is present in a given source organ. A companion report (Cristy and Eckerman 1987a) describes the procedures used in choosing the "best" estimate of Φ from the estimates generated by several methods for a given source-target pair—that report should be consulted for that and other background information. The Φ -values calculated by these methods and the "best" estimates recommended by us are published in this report for the adult male and in other companion reports (Cristy and Eckerman 1987b-g) for the newborn, for ages 1, 5, 10, and 15 years, and for an adult female. Note that from here forward the text is the same as that given in the reports for the other ages; it is reprinted in each volume for convenience.

The tables of specific absorbed fractions are available on diskettes for personal computers, by request.

The methods used to calculate Φ are similar to those used by Snyder, Ford, Warner, and Watson (1974) for an adult. Simple equations describing the geometry of the body and its organs ("mathematical phantoms") are used (1) with a computer program that simulates radiation transport with Monte Carlo methods or (2) with a computer program that integrates the point-source kernel equation (including buildup) over the volumes of the source and target organs. The source of the photons is assumed to be distributed uniformly in a given source organ. One important difference between our methods and that of Snyder et al. is that a better method to calculate the specific absorbed fraction in the active marrow and the endosteal cells of the skeleton has been employed; if the initial photon energy is less than 200 keV, the earlier method substantially overestimates Φ when active marrow is the target organ. Also, we have made more use of the converse Monte Carlo estimate, $\Phi(\text{source organ} \leftarrow \text{target organ})$, as an approximation to the direct Monte Carlo estimate, $\Phi(\text{target organ} \leftarrow \text{source organ})$, sometimes in conjunction with a correction factor; and we have made more extensive use of empirical correction factors for the estimates generated by the point-source kernel method. These methods are discussed in chapters II and III of Cristy and Eckerman (1987a).

The mathematical phantoms used in our work are designed like the adult phantom of Snyder et al. (1974) and have different densities and chemical compositions for lung, skeletal, and soft tissues. (We use the term "soft tissues" to mean near-unit-density tissues, i.e., density $\approx 1 \text{ g/cm}^3$.) These phantoms have been described by Cristy (1980), but several changes have been made in our phantoms since the 1980 report: (1) the age 15 phantom of Cristy (1980) has been redesigned so that it now represents both a 15-year-old male and an adult female; (2) the adult phantom of Cristy (1980) has been modified slightly and is now labeled "adult male," although it is hermaphroditic and could also represent a larger than average adult female; (3) the densities and chemical compositions of the tissues have been changed in all of the phantoms; and (4) the densities and compositions of the skeletal and soft tissues of the newborn phantom are now different from those at other ages. The equations describing the phantoms, as amended, and the newer data on densities and compositions are given in Appendix A of Cristy and Eckerman (1987a).

Because of the change in tissue densities in the phantoms, the organ and whole-body masses have also changed slightly. As explained in Appendix B of Cristy and Eckerman (1987a), the

design of the phantom series was viewed as a geometry problem where volume, not mass, values were of prime interest; and furthermore, if the design approach had been to obtain correct (numerical value) masses at the expense of correct (numerical) volumes, the errors in the specific absorbed fraction would have been larger than with this approach. The magnitude of the changes in mass is also trivial. For the purpose of estimating specific absorbed fractions from photons, we view the adult male phantom simply as a model for the 70-kg Reference Man, the fifteen-year-old-male/adult-female phantom as a model for either the 58-kg Reference Woman or a 55-kg fifteen-year-old male, the age 10 phantom as a model for a 32-to-33-kg male or female child, and so on, even though the masses of organs in the phantoms and the masses of the phantoms themselves may be slightly different from values in ICRP Publication 23 (1975). A comparison of whole-body masses between the phantoms and humans is given in Table 1; in the tables of specific absorbed fractions for each age we give the nominal value of mass rather than the actual mass of the phantom in the identifying heading. We recommend use of the organ masses from ICRP Publication 23 (1975), especially for the 70-kg adult male, for all other purposes, e.g., for computing Φ -values from non-penetrating radiations. If masses of organs in children are not available, the masses in the phantoms could be used with little error. The masses of the organs of the phantoms are given in Appendix B of Cristy and Eckerman (1987a); the centroids of the organs are given in Appendix C of that report.

Table 1. Comparison of whole-body masses

Phantom	Whole-body mass of phantom (kg)		Age	Whole-body mass of human (kg) ^e	
	Actual	Nominal		Female	Male
Newborn	3.6	3.4	Newborn	3.4	3.4 ^f
Age 1	9.7	9.8	1 year	9.5	10.1
Age 5	19.8	19	5 years	18.6	18.8
Age 10	33.2	32	10 years	31.9	32.7
15-AF ^a	56.8 ^b	55-58 ^d	15 years	51.6	54.5
Adult male	73.7 ^c	70	Adult	56.7 (58) ^g	71.7 (70) ^g

^aAge- 15-male/adult-female phantom.

^b56.4 kg without the female breasts.

^c73.3 kg without the female breasts.

^d55 kg for age 15 male and 58 kg for adult female.

^eData for ages newborn to 15 years are from Watson and Lowrey (1967).

Data for adults are from ICRP Publication 23, p.13.

^f3.5 kg for newborn male is given in ICRP Publication 23.

^gReference whole-body masses were rounded to 58 and 70 kg for adult females and males in ICRP Publication 23.

TABLES OF RECOMMENDED VALUES OF Φ (APPENDIX A) AND TABLES OF RAW DATA AND RECOMMENDED VALUES (APPENDIX B).

The tables of recommended values comprise Appendix A. The Φ -values as calculated by the various methods [direct Monte Carlo estimate, $\Phi(\text{target} \leftarrow \text{source})$; converse Monte Carlo estimate, $\Phi(\text{source} \leftarrow \text{target})$; and point-source kernel estimate, $\Phi(\text{target} \leftarrow \text{source})$] comprise Appendix B; and the recommended values are also reprinted for convenience. Note that the units are kg^{-1} . Because Φ -values smaller than 10^{-10} kg^{-1} are zero for all practical purposes, they are given as 0.0 in Appendix A, but in Appendix B the values are given as calculated by the computer programs. Φ -values

with coefficients of variation (C.V.) greater than 50% were never used in deriving recommended values, but these data are given in Appendix B. Blank entries in the tables of Appendix B indicate that no data are available.

The source and target organs are arranged alphabetically in the appendices. The meanings of abbreviations are given in Table 2. The recommended values for the organ "MUSCLE" in Appendix A are taken from the data for the "remaining tissue" compartment of the phantom; these data are listed under "REMAINING TISSUE" in Appendix B.

Table 2. Abbreviations used in Appendices A and B

Abbreviation	Meaning
BL	Bladder
CONT	Contents
GI	Gastrointestinal
LLI	Lower large intestine
SI	Small intestine
ULI	Upper large intestine
MC(2<-1)	Monte Carlo estimate of Φ (organ 2←organ 1)
MC(1<-2)	Monte Carlo estimate of Φ (organ 1←organ 2)
PK(2<->1)	Point-source kernel estimate of Φ (organ 2↔organ 1)
RECOM'D(2<-1)	Recommended value of Φ (organ 2←organ 1)
RECOM'D(1 <-2)	Recommended value of Φ (organ 1←organ 2)
1.2E-03 (for example)	1.2×10^{-3}

In Appendix B the organs are labeled as "ORGAN 1" and "ORGAN 2" rather than as source and target organs. Which is source and which is target depend upon the context. For example, on the first page of Appendix B under "ORGAN 1 = ADRENALS" and "ORGAN 2 = BRAIN" are listed values for "MC(2<-1)", "MC(1<-2)", "PK(2<->1)", "RECOM'D(2<-1)", and "RECOM'D(1 <-2)". The symbols like "<->" should be read as arrows, and the abbreviations have the following meanings, respectively: (1) Monte Carlo estimate of Φ for source = organ 1 and target = organ 2; (2) Monte Carlo estimate of Φ for source = organ 2 and target = organ 1; (3) Point-source kernel estimate of Φ , where either can be designated source or target; (4) Recommended value of Φ for source = organ 1 and target = organ 2; and (5) Recommended value of Φ for source = organ 2 and target = organ 1. Note that if one is interested in the raw data for source = brain and target = adrenals, one must look under "ORGAN 1 = ADRENALS" and "ORGAN 2 = BRAIN" in the tables. There is no listing for "ORGAN 1 = BRAIN" and "ORGAN 2 = ADRENALS"; for each "organ 1" there follow only those "organs 2" which follow "organ 1" alphabetically, to avoid redundancy.

The entries in the tables for active marrow can be confusing if not considered carefully, because Φ -values for active marrow as a target are computed by two different methods. As explained in detail in the companion volume on methods (Cristy and Eckerman 1987a), we have used new methods to calculate Φ -values for the active marrow and the endosteal cells of the skeleton as target organs; and these values are given as the recommended values in Appendix A, under the heading "TARGET" and labeled "SKELETON: ACTIVE MARROW" and "SKELETON: BONE SURFACES;" these values do not appear in Appendix B. (We use the terms "endosteal cells" and "bone surfaces" synonymously.)

We also compute Φ -values for active marrow as a target in the old way, i.e., with the method used by Snyder et al. (1974). These values are given only in Appendix B and labeled as either "ORGAN 1 = SKELETON: ACTIVE MARROW" (when the context indicates that organ 1 is

the target) or “ORGAN 2 = SKELETON: ACTIVE MARROW” (when the context indicates that organ 2 is the target). These values are given because they are useful as converse Monte Carlo estimates in developing the recommended values when active marrow is the source organ (see Cristy and Eckerman 1987a).

If the active marrow or the skeleton as a whole (“SKELETON: WHOLE SKELETON” in the appendices) is the **source organ**, the method used to compute Φ is like that used by Snyder et al. (1974). No data are given in either appendix for endosteal cells as a source organ.

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APPENDIX A

TABLES OF SPECIFIC ABSORBED FRACTIONS—RECOMMENDED VALUES

Specific Absorbed Fraction of Photon Energy in kg-1: Recommended Values for the Adult Male

Source = Adrenals	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	5.73E+01	3.64E+01	2.07E+01	7.57E+00	2.50E+00	1.49E+00	1.64E+00	1.75E+00	1.67E+00	1.53E+00	1.41E+00	1.15E+00
UB_Wall	0.0	0.0	0.0	1.89E-06	9.51E-05	3.16E-04	4.56E-04	6.55E-04	7.52E-04	7.85E-04	8.04E-04	7.39E-04
Bone_Sur	3.64E-05	2.09E-03	1.06E-02	2.80E-02	3.20E-02	1.63E-02	9.16E-03	6.66E-03	6.10E-03	5.73E-03	5.42E-03	4.60E-03
Brain	0.0	0.0	0.0	1.04E-08	3.38E-06	1.62E-05	2.83E-05	6.99E-05	1.23E-04	1.61E-04	1.90E-04	2.70E-04
Breasts	0.0	0.0	1.24E-07	3.75E-04	2.03E-03	2.61E-03	2.43E-03	2.89E-03	2.96E-03	2.98E-03	2.91E-03	2.34E-03
St_Wall	0.0	1.25E-06	3.97E-04	6.47E-03	1.63E-02	1.48E-02	1.27E-02	1.15E-02	1.08E-02	1.04E-02	9.97E-03	8.22E-03
SI_Wall	0.0	0.0	2.04E-06	4.08E-04	2.26E-03	3.79E-03	3.62E-03	3.60E-03	3.58E-03	3.60E-03	3.54E-03	2.93E-03
ULI_Wall	0.0	0.0	2.50E-06	6.83E-04	3.11E-03	5.08E-03	4.08E-03	4.25E-03	4.41E-03	4.14E-03	3.88E-03	3.27E-03
LLI_Wall	0.0	0.0	3.09E-08	3.63E-05	4.04E-04	8.37E-04	1.19E-03	1.33E-03	1.32E-03	1.28E-03	1.24E-03	1.11E-03
Kidneys	7.57E-04	1.16E-02	3.74E-02	6.43E-02	5.15E-02	3.68E-02	3.41E-02	3.29E-02	3.07E-02	2.82E-02	2.61E-02	2.19E-02
Liver	9.80E-05	3.32E-03	1.37E-02	2.96E-02	2.93E-02	2.25E-02	2.06E-02	1.89E-02	1.79E-02	1.66E-02	1.54E-02	1.26E-02
ET1-bas	0.0	0.0	0.0	1.32E-06	7.93E-05	3.84E-04	4.40E-04	5.60E-04	6.93E-04	7.30E-04	7.57E-04	7.01E-04
ET2-bas	0.0	0.0	0.0	1.32E-06	7.93E-05	3.84E-04	4.40E-04	5.60E-04	6.93E-04	7.30E-04	7.57E-04	7.01E-04
LN-ET	0.0	0.0	0.0	1.32E-06	7.93E-05	3.84E-04	4.40E-04	5.60E-04	6.93E-04	7.30E-04	7.57E-04	7.01E-04
BBi-bas	4.13E-05	6.49E-04	4.58E-03	1.47E-02	1.54E-02	1.20E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
BBi-sec	4.13E-05	6.49E-04	4.58E-03	1.47E-02	1.54E-02	1.20E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
bbe-sec	4.13E-05	6.49E-04	4.58E-03	1.47E-02	1.54E-02	1.20E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
AI	4.13E-05	6.49E-04	4.58E-03	1.47E-02	1.54E-02	1.20E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
LN-Th	4.13E-05	6.49E-04	4.58E-03	1.47E-02	1.54E-02	1.20E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
Lng_Tiss	4.13E-05	6.49E-04	4.58E-03	1.47E-02	1.54E-02	1.20E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
Lung_NP	0.0	0.0	0.0	1.32E-06	7.93E-05	3.84E-04	4.40E-04	5.60E-04	6.93E-04	7.30E-04	7.57E-04	7.01E-04
Lung_TB	4.13E-05	6.49E-04	4.58E-03	1.47E-02	1.54E-02	1.20E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
Lung_P	4.13E-05	6.49E-04	4.58E-03	1.47E-02	1.54E-02	1.20E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
Muscle	3.67E-03	8.58E-03	1.11E-02	1.01E-02	7.25E-03	5.54E-03	5.40E-03	5.36E-03	5.03E-03	4.74E-03	4.48E-03	3.73E-03
Ovaries	0.0	0.0	3.16E-09	2.54E-05	4.76E-04	1.18E-03	2.08E-03	1.73E-03	1.56E-03	1.50E-03	1.46E-03	1.39E-03
Pancreas	8.35E-09	9.41E-04	2.00E-02	8.13E-02	8.02E-02	5.68E-02	5.03E-02	4.54E-02	4.01E-02	3.73E-02	3.49E-02	2.74E-02
R_Marrow	1.62E-05	8.41E-04	3.98E-03	9.92E-03	1.32E-02	1.27E-02	1.25E-02	1.24E-02	1.13E-02	1.06E-02	1.00E-02	8.32E-03
Skin	0.0	9.62E-06	1.70E-04	1.06E-03	1.70E-03	1.66E-03	1.69E-03	1.95E-03	2.02E-03	1.83E-03	1.72E-03	1.76E-03
Spleen	0.0	7.68E-05	4.68E-03	2.41E-02	3.41E-02	2.45E-02	2.11E-02	2.05E-02	1.75E-02	1.70E-02	1.65E-02	1.35E-02
Testes	0.0	0.0	3.03E-08	8.09E-06	5.42E-05	1.13E-04	2.00E-04	2.65E-04	3.00E-04	3.27E-04	3.31E-04	
Thymus	0.0	0.0	1.66E-07	1.78E-04	2.32E-03	2.71E-03	2.99E-03	3.09E-03	2.94E-03	2.79E-03	2.66E-03	2.34E-03
Thyroid	0.0	0.0	0.0	1.32E-06	7.93E-05	3.84E-04	4.40E-04	5.60E-04	6.93E-04	7.30E-04	7.57E-04	7.01E-04
GB_Wall	0.0	4.35E-06	7.37E-04	1.22E-02	1.81E-02	1.91E-02	1.62E-02	1.36E-02	1.21E-02	1.16E-02	9.84E-03	
Ht_Wall	0.0	1.22E-06	3.32E-04	7.29E-03	1.68E-02	1.53E-02	1.31E-02	1.13E-02	1.03E-02	9.63E-03	7.79E-03	
Uterus	0.0	0.0	1.54E-09	1.87E-05	3.74E-04	7.66E-04	7.34E-04	7.17E-03	1.36E-03	1.35E-03	1.35E-03	1.30E-03

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = UB_Cont	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	0.0	1.71E-06	9.23E-05	3.11E-04	5.79E-04	7.52E-04	7.73E-04	7.65E-04	7.56E-04	7.37E-04
UB_Wall1	1.32E+00	2.04E+00	2.04E+00	1.32E+00	5.82E-01	3.34E-01	3.33E-01	3.09E-01	2.83E-01	2.62E-01	2.08E-01	2.08E-01
Bone_Sur	0.0	9.92E-09	2.37E-05	1.52E-03	6.74E-03	6.24E-03	3.80E-03	2.32E-03	2.21E-03	2.12E-03	2.02E-03	1.70E-03
Brain	0.0	0.0	0.0	0.0	3.64E-09	1.09E-07	5.72E-07	2.82E-06	8.29E-06	1.41E-05	2.06E-05	3.74E-05
Breasts	0.0	0.0	0.0	2.19E-08	6.34E-06	4.45E-05	9.63E-05	1.39E-04	1.84E-04	2.12E-04	2.34E-04	3.03E-04
St_Wall1	0.0	0.0	1.17E-08	2.89E-05	4.68E-04	9.39E-04	1.15E-03	1.23E-03	1.34E-03	1.38E-03	1.39E-03	1.36E-03
SI_Wall1	0.0	3.57E-07	1.22E-04	4.23E-03	1.20E-02	1.16E-02	9.95E-03	9.14E-03	8.49E-03	7.80E-03	7.31E-03	6.44E-03
ULI_Wall1	0.0	2.87E-07	9.19E-05	2.60E-03	8.36E-03	8.33E-03	7.53E-03	6.92E-03	6.84E-03	6.51E-03	6.16E-03	5.24E-03
LILI_Wall1	2.93E-09	2.46E-04	6.13E-03	3.44E-02	4.17E-02	3.03E-02	2.71E-02	2.39E-02	2.12E-02	1.93E-02	1.80E-02	1.57E-02
Kidneys	0.0	0.0	4.05E-09	2.22E-05	5.06E-04	8.59E-04	1.17E-03	1.39E-03	1.43E-03	1.42E-03	1.42E-03	1.40E-03
Liver	0.0	0.0	2.32E-09	1.09E-05	2.39E-04	5.06E-04	6.89E-04	8.46E-04	9.54E-04	9.97E-04	1.01E-03	9.91E-04
ET1-bas	0.0	0.0	0.0	0.0	1.06E-07	2.28E-06	8.43E-06	2.53E-05	4.75E-05	6.35E-05	7.81E-05	9.72E-05
ET2-bas	0.0	0.0	0.0	0.0	1.06E-07	2.28E-06	8.43E-06	2.53E-05	4.75E-05	6.35E-05	7.81E-05	9.72E-05
LN-ET	0.0	0.0	0.0	0.0	1.06E-07	2.28E-06	8.43E-06	2.53E-05	4.75E-05	6.35E-05	7.81E-05	9.72E-05
BBi-bas	0.0	0.0	0.0	0.0	1.30E-07	1.25E-05	4.19E-05	6.61E-05	1.18E-04	1.76E-04	2.17E-04	2.50E-04
BBi-sec	0.0	0.0	0.0	0.0	1.30E-07	1.25E-05	4.19E-05	6.61E-05	1.18E-04	1.76E-04	2.17E-04	2.50E-04
bbe-sec	0.0	0.0	0.0	0.0	1.30E-07	1.25E-05	4.19E-05	6.61E-05	1.18E-04	1.76E-04	2.17E-04	2.50E-04
AI	0.0	0.0	0.0	0.0	1.30E-07	1.25E-05	4.19E-05	6.61E-05	1.18E-04	1.76E-04	2.17E-04	2.50E-04
LN-Th	0.0	0.0	0.0	0.0	1.30E-07	1.25E-05	4.19E-05	6.61E-05	1.18E-04	1.76E-04	2.17E-04	2.50E-04
Lng_Tiss	0.0	0.0	0.0	0.0	1.30E-07	1.25E-05	4.19E-05	6.61E-05	1.18E-04	1.76E-04	2.17E-04	2.50E-04
Lung_NP	0.0	0.0	0.0	0.0	1.06E-07	2.28E-06	8.43E-06	2.53E-05	4.75E-05	6.35E-05	7.81E-05	9.72E-05
Lung_TB	0.0	0.0	0.0	0.0	1.30E-07	1.25E-05	4.19E-05	6.61E-05	1.18E-04	1.76E-04	2.17E-04	2.50E-04
Lung_P	0.0	0.0	0.0	0.0	1.30E-07	1.25E-05	4.19E-05	6.61E-05	1.18E-04	1.76E-04	2.17E-04	2.50E-04
Muscle	1.72E-04	1.79E-03	4.84E-03	8.95E-03	8.82E-03	6.66E-03	6.13E-03	5.96E-03	5.62E-03	5.27E-03	4.96E-03	4.18E-03
Ovaries	0.0	9.29E-06	1.87E-03	2.05E-02	3.76E-02	2.94E-02	2.41E-02	2.20E-02	1.90E-02	1.83E-02	1.78E-02	1.50E-02
Pancreas	0.0	0.0	2.72E-10	6.26E-06	3.30E-04	5.97E-04	8.20E-04	9.43E-04	1.01E-03	1.05E-03	1.06E-03	1.06E-03
R_Marrow	0.0	4.51E-08	1.30E-05	7.29E-04	3.18E-03	4.00E-03	3.96E-03	3.89E-03	3.60E-03	3.34E-03	3.13E-03	2.62E-03
Skin	4.49E-07	2.29E-05	3.72E-04	1.74E-03	2.13E-03	1.89E-03	2.05E-03	2.13E-03	2.25E-03	2.29E-03	2.22E-03	1.80E-03
Spleen	0.0	0.0	1.50E-10	4.18E-06	1.72E-04	3.30E-04	5.49E-04	8.01E-04	9.09E-04	9.35E-04	9.42E-04	9.35E-04
Testes	0.0	2.74E-06	8.30E-04	1.32E-02	2.58E-02	1.90E-02	1.82E-02	1.64E-02	1.58E-02	1.48E-02	1.40E-02	1.25E-02
Thymus	0.0	0.0	0.0	6.25E-09	2.97E-06	2.58E-05	6.13E-05	1.21E-04	1.80E-04	2.10E-04	2.26E-04	2.43E-04
Thyroid	0.0	0.0	0.0	0.0	1.06E-07	2.28E-06	8.43E-06	2.53E-05	4.75E-05	6.35E-05	7.81E-05	9.72E-05
GB_Wall1	0.0	0.0	4.57E-08	7.97E-05	1.27E-03	1.61E-03	1.85E-03	1.97E-03	1.96E-03	1.97E-03	1.97E-03	1.97E-03
Ht_Wall1	0.0	0.0	0.0	1.58E-07	2.01E-05	9.75E-05	1.29E-04	1.86E-04	2.45E-04	2.88E-04	3.23E-04	4.27E-04
Uterus	1.07E-04	3.19E-03	3.54E-02	1.10E-01	1.01E-01	6.51E-02	5.22E-02	4.50E-02	4.50E-02	3.77E-02	3.26E-02	3.26E-02

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = UB_Wall	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	0.0	1.89E-06	9.51E-05	3.16E-04	4.56E-04	6.55E-04	7.52E-04	8.04E-04	7.39E-04	
UB_Wall1	1.42E+01	7.65E+00	4.40E+00	1.83E+00	7.00E-01	4.06E-01	4.14E-01	4.48E-01	3.21E-01	3.84E-01	3.54E-01	
Bone_Sur	0.0	9.92E-09	2.37E-05	1.52E-03	6.74E-03	6.24E-03	3.80E-03	2.32E-03	2.21E-03	2.02E-03	1.70E-03	
Brain	0.0	0.0	0.0	0.0	3.77E-09	1.11E-07	5.78E-07	2.83E-06	8.32E-06	1.42E-05	2.07E-05	
Breasts	0.0	0.0	0.0	2.43E-08	6.58E-06	4.56E-05	9.62E-05	1.76E-04	2.38E-04	2.75E-04	2.95E-04	
St_Wall1	0.0	0.0	1.70E-08	3.17E-05	5.91E-04	7.72E-04	9.77E-04	1.19E-03	1.28E-03	1.32E-03	1.34E-03	
SI_Wall1	0.0	8.07E-07	2.86E-04	4.31E-03	1.21E-02	1.14E-02	1.01E-02	9.12E-03	8.18E-03	7.94E-03	7.72E-03	
ULI_Wall1	0.0	1.20E-06	1.65E-04	2.67E-03	8.02E-03	8.18E-03	7.25E-03	7.04E-03	6.34E-03	6.08E-03	5.80E-03	
LLI_Wall1	1.16E-07	7.82E-04	9.43E-03	3.90E-02	4.33E-02	3.14E-02	2.73E-02	2.39E-02	2.23E-02	2.15E-02	2.06E-02	
Kidneys	0.0	0.0	5.67E-09	2.41E-05	5.36E-04	8.21E-04	1.11E-03	1.35E-03	1.42E-03	1.42E-03	1.40E-03	
Liver	0.0	0.0	3.63E-09	1.23E-05	2.36E-04	5.01E-04	6.95E-04	9.01E-04	1.03E-03	1.06E-03	1.06E-03	
ET1-bas	0.0	0.0	0.0	0.0	1.09E-07	2.30E-06	8.49E-06	2.54E-05	4.75E-05	6.36E-05	7.81E-05	
ET2-bas	0.0	0.0	0.0	0.0	1.09E-07	2.30E-06	8.49E-06	2.54E-05	4.75E-05	6.36E-05	7.81E-05	
LN-ET	0.0	0.0	0.0	0.0	1.09E-07	2.30E-06	8.49E-06	2.54E-05	4.75E-05	6.36E-05	7.81E-05	
BBi-bas	0.0	0.0	0.0	1.45E-07	1.32E-05	4.57E-05	9.80E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	
BBi-sec	0.0	0.0	0.0	1.45E-07	1.32E-05	4.57E-05	9.80E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	
bbe-sec	0.0	0.0	0.0	1.45E-07	1.32E-05	4.57E-05	9.80E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	
AI	0.0	0.0	0.0	1.45E-07	1.32E-05	4.57E-05	9.80E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	
LN-Th	0.0	0.0	0.0	1.45E-07	1.32E-05	4.57E-05	9.80E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	
Lng_Tiss	0.0	0.0	0.0	1.45E-07	1.32E-05	4.57E-05	9.80E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	
Lung_NP	0.0	0.0	0.0	0.0	1.09E-07	2.30E-06	8.49E-06	2.54E-05	4.75E-05	6.36E-05	7.81E-05	
Lung_TB	0.0	0.0	0.0	1.45E-07	1.32E-05	4.57E-05	9.80E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	
Lung_P	0.0	0.0	0.0	1.45E-07	1.32E-05	4.57E-05	9.80E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	
Muscle	3.75E-03	7.10E-03	9.49E-03	1.12E-02	9.43E-03	7.07E-03	6.55E-03	6.42E-03	6.04E-03	5.64E-03	5.29E-03	
Ovaries	0.0	2.71E-05	2.59E-03	2.29E-02	3.78E-02	2.92E-02	2.50E-02	2.32E-02	1.91E-02	1.80E-02	1.73E-02	
Pancreas	0.0	0.0	3.81E-10	6.85E-06	2.01E-04	5.65E-04	8.83E-04	9.96E-04	9.89E-04	9.88E-04	9.86E-04	
R_Marrow	0.0	4.51E-08	1.30E-05	7.29E-04	3.18E-03	4.00E-03	3.96E-03	3.89E-03	3.60E-03	3.34E-03	3.13E-03	
Skin	4.45E-06	7.71E-05	5.83E-04	1.83E-03	2.22E-03	2.07E-03	2.08E-03	2.33E-03	2.36E-03	2.19E-03	2.06E-03	
Spleen	0.0	0.0	2.25E-10	4.70E-06	1.54E-04	3.19E-04	5.20E-04	7.45E-04	8.37E-04	8.59E-04	8.64E-04	
Testes	0.0	7.52E-06	1.24E-03	1.12E-02	2.38E-02	1.97E-02	1.79E-02	1.57E-02	1.56E-02	1.42E-02	1.32E-02	
Thymus	0.0	0.0	0.0	6.95E-09	3.09E-06	2.63E-05	6.21E-05	1.22E-04	1.74E-04	2.05E-04	2.29E-04	
Thyroid	0.0	0.0	0.0	0.0	1.09E-07	2.30E-06	8.49E-06	2.54E-05	4.75E-05	6.36E-05	7.81E-05	
GB_Wall1	0.0	0.0	6.61E-08	8.74E-05	1.08E-03	1.84E-03	2.00E-03	1.95E-03	1.89E-03	1.85E-03	1.79E-03	
Ht_Wall1	0.0	0.0	0.0	1.76E-07	2.09E-05	1.02E-04	1.22E-04	1.68E-04	2.24E-04	3.08E-04	4.28E-04	
Uterus	3.86E-05	1.21E-02	5.43E-02	1.26E-01	1.03E-01	6.65E-02	5.80E-02	5.51E-02	4.87E-02	4.45E-02	3.39E-02	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = C_Bone-S	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	4.28E-06	4.29E-04	1.86E-03	4.43E-03	5.90E-03	5.31E-03	5.30E-03	5.55E-03	5.08E-03	4.76E-03	4.51E-03	3.83E-03
UB_Wall	0.0	9.45E-09	7.65E-06	2.77E-04	1.31E-03	1.96E-03	2.03E-03	1.97E-03	1.80E-03	1.71E-03	1.64E-03	1.48E-03
Bone_Sur	1.28E-01	1.28E-01	1.24E-01	1.07E-01	6.61E-02	2.63E-02	1.60E-02	1.40E-02	1.31E-02	1.20E-02	1.11E-02	9.05E-03
Brain	7.04E-04	2.23E-03	4.56E-03	8.01E-03	7.98E-03	5.81E-03	5.76E-03	6.31E-03	5.91E-03	5.46E-03	5.11E-03	4.25E-03
Breasts	6.28E-06	2.05E-04	8.40E-04	1.55E-03	1.70E-03	1.48E-03	1.55E-03	1.55E-03	1.87E-03	1.92E-03	1.85E-03	1.76E-03
St_Wall	5.89E-06	5.17E-05	2.41E-04	8.29E-04	1.65E-03	1.94E-03	2.01E-03	1.94E-03	1.98E-03	1.88E-03	1.77E-03	1.70E-03
SI_Wall	7.29E-05	2.20E-04	5.04E-04	1.40E-03	2.65E-03	2.88E-03	2.82E-03	2.72E-03	2.72E-03	2.58E-03	2.36E-03	2.21E-03
ULI_Wall	2.55E-05	2.26E-04	6.17E-04	1.34E-03	2.30E-03	2.48E-03	2.49E-03	2.39E-03	2.30E-03	2.18E-03	2.07E-03	1.86E-03
LLI_Wall	7.60E-05	6.57E-04	1.67E-03	3.09E-03	3.84E-03	3.65E-03	3.58E-03	3.66E-03	3.66E-03	3.12E-03	2.96E-03	2.43E-03
Kidneys	5.18E-06	7.62E-05	5.13E-04	1.83E-03	3.10E-03	3.14E-03	3.13E-03	3.13E-03	3.23E-03	3.01E-03	2.87E-03	2.75E-03
Liver	1.67E-05	1.30E-04	4.51E-04	1.42E-03	2.33E-03	2.38E-03	2.38E-03	2.50E-03	2.50E-03	2.31E-03	2.14E-03	2.04E-03
ET1-bas	1.22E-06	4.10E-05	4.95E-04	2.36E-03	4.02E-03	3.89E-03	3.73E-03	3.73E-03	3.97E-03	3.74E-03	3.49E-03	3.29E-03
ET2-bas	1.22E-06	4.10E-05	4.95E-04	2.36E-03	4.02E-03	3.89E-03	3.73E-03	3.73E-03	3.97E-03	3.74E-03	3.49E-03	3.29E-03
LN-ET	1.22E-06	4.10E-05	4.95E-04	2.36E-03	4.02E-03	3.89E-03	3.73E-03	3.73E-03	3.97E-03	3.74E-03	3.49E-03	3.29E-03
BBi-bas	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.23E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
BBi-sec	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.23E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
bbe-sec	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.23E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
AI	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.23E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
LN-Th	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.23E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
Lng_Tiss	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.23E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
Lung_NP	1.22E-06	4.10E-05	4.95E-04	2.36E-03	4.02E-03	3.89E-03	3.73E-03	3.73E-03	3.97E-03	3.74E-03	3.49E-03	3.29E-03
Lung_TB	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.23E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
Lung_P	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.23E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
Muscle	3.20E-04	9.27E-04	1.73E-03	3.08E-03	3.89E-03	3.65E-03	3.73E-03	3.73E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
Ovaries	0.0	7.73E-06	2.90E-04	1.91E-03	3.31E-03	3.30E-03	3.30E-03	3.18E-03	3.09E-03	3.09E-03	2.85E-03	2.63E-03
Pancreas	2.85E-07	1.30E-05	1.96E-04	1.27E-03	2.91E-03	3.26E-03	3.20E-03	3.30E-03	3.20E-03	2.97E-03	2.77E-03	2.62E-03
R_Marrow	2.51E-02	2.23E-02	1.98E-02	1.57E-02	1.17E-02	9.70E-03	9.88E-03	1.01E-02	9.48E-03	8.71E-03	8.10E-03	6.72E-03
Skin	3.58E-04	9.21E-04	1.51E-03	2.19E-03	2.43E-03	2.43E-03	2.43E-03	2.47E-03	3.00E-03	2.90E-03	2.71E-03	2.22E-03
Spleen	8.80E-08	5.74E-05	3.96E-04	1.34E-03	2.39E-03	2.50E-03	2.41E-03	2.52E-03	2.41E-03	2.30E-03	2.20E-03	1.84E-03
Testes	0.0	7.87E-09	5.09E-06	2.53E-04	1.29E-03	1.95E-03	2.08E-03	2.21E-03	2.11E-03	1.96E-03	1.85E-03	1.62E-03
Thymus	1.07E-05	1.30E-04	7.63E-04	1.75E-03	2.42E-03	2.40E-03	2.42E-03	2.49E-03	2.45E-03	2.32E-03	2.20E-03	1.91E-03
Thyroid	1.22E-06	4.10E-05	4.95E-04	2.36E-03	4.02E-03	3.89E-03	3.73E-03	3.97E-03	3.74E-03	3.49E-03	3.29E-03	2.71E-03
GB_Wall	4.70E-10	2.30E-07	1.87E-05	4.31E-04	1.65E-03	2.22E-03	2.20E-03	2.24E-03	1.97E-03	1.86E-03	1.79E-03	1.54E-03
Ht_Wall	2.15E-06	7.45E-05	3.92E-04	1.40E-03	2.70E-03	2.93E-03	2.85E-03	2.89E-03	2.62E-03	2.48E-03	2.39E-03	2.10E-03
Uterus	0.0	7.18E-08	2.04E-05	5.17E-04	1.85E-03	2.44E-03	2.36E-03	2.45E-03	2.06E-03	1.97E-03	1.92E-03	1.68E-03

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = C_Bone-V	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	4.28E-06	4.29E-04	1.86E-03	4.43E-03	5.90E-03	5.31E-03	5.30E-03	5.55E-03	5.08E-03	4.76E-03	4.51E-03	3.83E-03
UB_Wall	0.0	9.45E-09	7.65E-06	2.77E-04	1.31E-03	1.96E-03	2.03E-03	1.97E-03	1.80E-03	1.71E-03	1.64E-03	1.48E-03
Bone_Sur	1.28E-01	1.28E-01	1.24E-01	1.07E-01	6.61E-02	2.63E-02	1.60E-02	1.40E-02	1.31E-02	1.20E-02	1.11E-02	9.05E-03
Brain	7.04E-04	2.23E-03	4.56E-03	8.01E-03	7.98E-03	5.81E-03	5.76E-03	6.31E-03	5.91E-03	5.46E-03	5.11E-03	4.25E-03
Breasts	6.28E-06	2.05E-04	8.40E-04	1.55E-03	1.70E-03	1.48E-03	1.55E-03	1.55E-03	1.87E-03	1.92E-03	1.85E-03	1.76E-03
St_Wall	5.89E-06	5.17E-05	2.41E-04	8.29E-04	1.65E-03	1.94E-03	2.01E-03	1.98E-03	1.98E-03	1.77E-03	1.70E-03	1.60E-03
SI_Wall	7.29E-05	2.20E-04	5.04E-04	1.40E-03	2.65E-03	2.88E-03	2.82E-03	2.72E-03	2.58E-03	2.36E-03	2.21E-03	2.02E-03
ULI_Wall	2.55E-05	2.26E-04	6.17E-04	1.34E-03	2.30E-03	2.48E-03	2.49E-03	2.39E-03	2.30E-03	2.18E-03	2.07E-03	1.86E-03
LLI_Wall	7.60E-05	6.57E-04	1.67E-03	3.09E-03	3.84E-03	3.65E-03	3.58E-03	3.66E-03	3.66E-03	3.12E-03	2.96E-03	2.43E-03
Kidneys	5.18E-06	7.62E-05	5.13E-04	1.83E-03	3.10E-03	3.14E-03	3.13E-03	3.23E-03	3.01E-03	2.87E-03	2.75E-03	2.31E-03
Liver	1.67E-05	1.30E-04	4.51E-04	1.42E-03	2.33E-03	2.38E-03	2.38E-03	2.50E-03	2.50E-03	2.31E-03	2.14E-03	2.04E-03
ET1-bas	1.22E-06	4.10E-05	4.95E-04	2.36E-03	4.02E-03	3.89E-03	3.73E-03	3.97E-03	3.73E-03	3.74E-03	3.49E-03	3.29E-03
ET2-bas	1.22E-06	4.10E-05	4.95E-04	2.36E-03	4.02E-03	3.89E-03	3.73E-03	3.97E-03	3.73E-03	3.74E-03	3.49E-03	3.29E-03
LN-ET	1.22E-06	4.10E-05	4.95E-04	2.36E-03	4.02E-03	3.89E-03	3.73E-03	3.97E-03	3.73E-03	3.74E-03	3.49E-03	3.29E-03
BBi-bas	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.51E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
BBi-sec	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.51E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
bbe-sec	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.51E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
AI	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.51E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
LN-Th	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.51E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
Lng_Tiss	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.51E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
Lung_NP	1.22E-06	4.10E-05	4.95E-04	2.36E-03	4.02E-03	3.89E-03	3.73E-03	3.97E-03	3.73E-03	3.74E-03	3.49E-03	3.29E-03
Lung_TB	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.51E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
Lung_P	9.44E-06	2.01E-04	9.58E-04	2.93E-03	3.96E-03	3.35E-03	3.23E-03	3.51E-03	3.51E-03	3.20E-03	2.96E-03	2.35E-03
Muscle	3.20E-04	9.27E-04	1.73E-03	3.08E-03	3.89E-03	3.65E-03	3.73E-03	3.51E-03	3.23E-03	3.20E-03	2.96E-03	2.35E-03
Ovaries	0.0	7.73E-06	2.90E-04	1.91E-03	3.31E-03	3.30E-03	3.31E-03	3.18E-03	3.09E-03	3.09E-03	2.85E-03	2.63E-03
Pancreas	2.85E-07	1.30E-05	1.96E-04	1.27E-03	2.91E-03	3.26E-03	3.20E-03	3.30E-03	3.20E-03	2.97E-03	2.77E-03	2.62E-03
R_Marrow	2.51E-02	2.23E-02	1.98E-02	1.57E-02	1.17E-02	9.70E-03	9.88E-03	1.01E-02	9.48E-03	8.71E-03	8.10E-03	6.72E-03
Skin	3.58E-04	9.21E-04	1.51E-03	2.19E-03	2.43E-03	2.43E-03	2.43E-03	2.47E-03	3.00E-03	2.90E-03	2.71E-03	2.22E-03
Spleen	8.80E-08	5.74E-05	3.96E-04	1.34E-03	2.39E-03	2.50E-03	2.41E-03	2.52E-03	2.41E-03	2.30E-03	2.20E-03	1.84E-03
Testes	0.0	7.87E-09	5.09E-06	2.53E-04	1.29E-03	1.95E-03	2.08E-03	2.21E-03	2.11E-03	1.96E-03	1.85E-03	1.62E-03
Thymus	1.07E-05	1.30E-04	7.63E-04	1.75E-03	2.42E-03	2.40E-03	2.42E-03	2.49E-03	2.45E-03	2.32E-03	2.20E-03	1.91E-03
Thyroid	1.22E-06	4.10E-05	4.95E-04	2.36E-03	4.02E-03	3.89E-03	3.73E-03	3.97E-03	3.74E-03	3.49E-03	3.29E-03	2.71E-03
GB_Wall	4.70E-10	2.30E-07	1.87E-05	4.31E-04	1.65E-03	2.22E-03	2.20E-03	2.24E-03	1.97E-03	1.86E-03	1.79E-03	1.54E-03
Ht_Wall	2.15E-06	7.45E-05	3.92E-04	1.40E-03	2.70E-03	2.93E-03	2.85E-03	2.89E-03	2.62E-03	2.48E-03	2.39E-03	2.10E-03
Uterus	0.0	7.18E-08	2.04E-05	5.17E-04	1.85E-03	2.44E-03	2.36E-03	2.45E-03	2.06E-03	1.97E-03	1.92E-03	1.68E-03

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = T_Bone-S	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	9.73E-05	4.18E-03	9.99E-03	1.33E-02	1.20E-02	1.24E-02	1.13E-02	1.06E-02	1.00E-02	1.00E-02	8.32E-03	
UB_Wall	0.0	3.52E-08	2.60E-05	8.66E-04	3.56E-03	4.74E-03	4.42E-03	3.05E-03	3.55E-03	3.29E-03	3.12E-03	
Bone_Sur	1.27E-01	1.25E-01	1.18E-01	9.82E-02	5.85E-02	2.33E-02	1.40E-02	1.21E-02	1.14E-02	1.05E-02	9.71E-03	
Brain	4.55E-04	1.44E-03	2.93E-03	5.20E-03	5.29E-03	3.98E-03	4.01E-03	4.40E-03	4.17E-03	3.85E-03	3.60E-03	
Breasts	1.25E-05	4.07E-04	1.66E-03	2.98E-03	3.04E-03	2.54E-03	2.64E-03	3.09E-03	3.10E-03	2.98E-03	2.84E-03	
St_Wall	1.19E-05	1.03E-04	4.72E-04	1.61E-03	3.31E-03	4.08E-03	4.13E-03	4.00E-03	3.73E-03	3.48E-03	3.32E-03	
SI_Wall	2.92E-04	8.75E-04	1.97E-03	5.30E-03	9.41E-03	9.50E-03	8.93E-03	8.33E-03	7.78E-03	7.00E-03	6.42E-03	
ULI_Wall	1.00E-04	9.07E-04	2.42E-03	4.98E-03	7.85E-03	7.84E-03	7.62E-03	7.04E-03	6.62E-03	6.12E-03	5.72E-03	
LLI_Wall	2.99E-04	2.57E-03	6.46E-03	1.13E-02	1.22E-02	1.01E-02	9.60E-03	9.43E-03	8.74E-03	8.14E-03	7.60E-03	
Kidneys	1.49E-05	2.15E-04	1.43E-03	5.16E-03	8.68E-03	8.52E-03	8.45E-03	8.46E-03	7.85E-03	7.37E-03	6.96E-03	
Liver	3.30E-05	2.48E-04	7.96E-04	2.32E-03	4.03E-03	4.37E-03	4.47E-03	4.36E-03	4.42E-03	4.06E-03	3.81E-03	
ET1-bas	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.73E-03	3.89E-03	3.64E-03	3.37E-03	
ET2-bas	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	
LN-ET	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	
BBi-bas	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
BBi-sec	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
bbe-sec	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
AI	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
LN-Th	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
Lng_Tiss	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
Lung_NP	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.89E-03	3.64E-03	5.63E-03	5.11E-03	
Lung_TB	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
Lung_P	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
Muscle	4.47E-04	1.31E-03	2.41E-03	4.12E-03	4.93E-03	4.51E-03	4.48E-03	4.54E-03	4.37E-03	4.12E-03	3.88E-03	
Ovaries	0.0	3.02E-05	1.13E-03	7.41E-03	1.22E-02	1.12E-02	1.01E-02	9.70E-03	8.71E-03	7.85E-03	7.29E-03	
Pancreas	6.67E-07	3.08E-05	4.68E-04	2.94E-03	6.59E-03	7.39E-03	7.30E-03	7.32E-03	6.36E-03	5.96E-03	5.65E-03	
R_Marrow	6.39E-02	5.69E-02	5.04E-02	3.91E-02	2.78E-02	2.24E-02	2.27E-02	2.35E-02	2.19E-02	2.01E-02	1.86E-02	
Skin	3.45E-04	9.08E-04	1.47E-03	2.01E-03	2.13E-03	2.01E-03	2.15E-03	2.53E-03	2.44E-03	2.33E-03	2.24E-03	
Spleen	1.74E-07	1.13E-04	7.58E-04	2.36E-03	4.17E-03	4.69E-03	4.45E-03	4.58E-03	4.25E-03	4.02E-03	3.82E-03	
Testes	0.0	3.16E-09	3.17E-06	1.38E-04	8.94E-04	1.48E-03	1.63E-03	1.73E-03	1.64E-03	1.52E-03	1.45E-03	
Thymus	2.13E-05	2.57E-04	1.51E-03	3.42E-03	4.44E-03	4.20E-03	4.19E-03	4.20E-03	4.14E-03	3.88E-03	3.64E-03	
Thyroid	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	
GB_Wall	0.0	5.62E-07	5.44E-05	1.17E-03	4.42E-03	5.79E-03	5.61E-03	5.53E-03	4.67E-03	4.33E-03	4.13E-03	
Ht_Wall	4.26E-06	1.50E-04	7.94E-04	2.78E-03	5.21E-03	5.50E-03	5.30E-03	5.27E-03	4.87E-03	4.59E-03	4.36E-03	
Uterus	1.46E-10	3.32E-07	7.98E-05	1.98E-03	6.59E-03	7.84E-03	7.46E-03	6.71E-03	5.79E-03	5.36E-03	4.35E-03	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = T_Bone-V	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	9.73E-05	4.18E-03	9.99E-03	1.33E-02	1.20E-02	1.24E-02	1.13E-02	1.06E-02	1.00E-02	1.00E-02	8.32E-03	
UB_Wall	0.0	3.52E-08	2.60E-05	8.66E-04	3.56E-03	4.74E-03	4.42E-03	3.05E-03	3.55E-03	3.29E-03	3.12E-03	
Bone_Sur	1.27E-01	1.25E-01	1.18E-01	9.82E-02	5.85E-02	2.33E-02	1.40E-02	1.21E-02	1.14E-02	1.05E-02	9.71E-03	
Brain	4.55E-04	1.44E-03	2.93E-03	5.20E-03	5.29E-03	3.98E-03	4.01E-03	4.40E-03	4.17E-03	3.85E-03	3.60E-03	
Breasts	1.25E-05	4.07E-04	1.66E-03	2.98E-03	3.04E-03	2.54E-03	2.64E-03	3.09E-03	3.10E-03	2.98E-03	2.84E-03	
St_Wall	1.19E-05	1.03E-04	4.72E-04	1.61E-03	3.31E-03	4.08E-03	4.13E-03	4.00E-03	3.73E-03	3.48E-03	3.32E-03	
SI_Wall	2.92E-04	8.75E-04	1.97E-03	5.30E-03	9.41E-03	9.50E-03	8.93E-03	8.33E-03	7.78E-03	7.00E-03	6.42E-03	
ULI_Wall	1.00E-04	9.07E-04	2.42E-03	4.98E-03	7.85E-03	7.84E-03	7.62E-03	7.04E-03	6.62E-03	6.12E-03	5.72E-03	
LLI_Wall	2.99E-04	2.57E-03	6.46E-03	1.13E-02	1.22E-02	1.01E-02	9.60E-03	9.43E-03	8.74E-03	8.14E-03	7.60E-03	
Kidneys	1.49E-05	2.15E-04	1.43E-03	5.16E-03	8.68E-03	8.52E-03	8.45E-03	8.46E-03	7.85E-03	7.37E-03	6.96E-03	
Liver	3.30E-05	2.48E-04	7.96E-04	2.32E-03	4.03E-03	4.37E-03	4.47E-03	4.36E-03	4.42E-03	4.06E-03	3.81E-03	
ET1-bas	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.73E-03	3.89E-03	3.64E-03	3.37E-03	
ET2-bas	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	
LN-ET	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	
BBi-bas	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
BBi-sec	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
bbe-sec	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
AI	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
LN-Th	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
Lng_Tiss	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
Lung_NP	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.89E-03	3.64E-03	5.63E-03	5.11E-03	
Lung_TB	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
Lung_P	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
Muscle	4.47E-04	1.31E-03	2.41E-03	4.12E-03	4.93E-03	4.51E-03	4.48E-03	4.54E-03	4.37E-03	4.12E-03	3.88E-03	
Ovaries	0.0	3.02E-05	1.13E-03	7.41E-03	1.22E-02	1.12E-02	1.01E-02	9.70E-03	8.71E-03	7.85E-03	7.29E-03	
Pancreas	6.67E-07	3.08E-05	4.68E-04	2.94E-03	6.59E-03	7.39E-03	7.30E-03	7.32E-03	6.36E-03	5.96E-03	5.65E-03	
R_Marrow	6.39E-02	5.69E-02	5.04E-02	3.91E-02	2.78E-02	2.24E-02	2.27E-02	2.35E-02	2.19E-02	2.01E-02	1.86E-02	
Skin	3.45E-04	9.08E-04	1.47E-03	2.01E-03	2.13E-03	2.01E-03	2.15E-03	2.53E-03	2.44E-03	2.33E-03	2.24E-03	
Spleen	1.74E-07	1.13E-04	7.58E-04	2.36E-03	4.17E-03	4.69E-03	4.45E-03	4.58E-03	4.25E-03	4.02E-03	3.82E-03	
Testes	0.0	3.16E-09	3.17E-06	1.38E-04	8.94E-04	1.48E-03	1.63E-03	1.73E-03	1.64E-03	1.52E-03	1.45E-03	
Thymus	2.13E-05	2.57E-04	1.51E-03	3.42E-03	4.44E-03	4.20E-03	4.19E-03	4.20E-03	4.14E-03	3.88E-03	3.64E-03	
Thyroid	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	
GB_Wall	0.0	5.62E-07	5.44E-05	1.17E-03	4.42E-03	5.79E-03	5.61E-03	5.53E-03	4.67E-03	4.33E-03	4.13E-03	
Ht_Wall	4.26E-06	1.50E-04	7.94E-04	2.78E-03	5.21E-03	5.50E-03	5.30E-03	5.27E-03	4.87E-03	4.59E-03	4.36E-03	
Uterus	1.46E-10	3.32E-07	7.98E-05	1.98E-03	6.59E-03	7.84E-03	7.46E-03	6.71E-03	5.79E-03	5.36E-03	4.35E-03	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Brain		Energy (MeV)										
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	0.0	0.0	1.04E-08	3.38E-06	1.62E-05	2.83E-05	6.99E-05	1.23E-04	1.61E-04	1.90E-04
UB_Wall	0.0	0.0	0.0	0.0	0.0	3.77E-09	1.11E-07	5.78E-07	2.83E-06	8.32E-06	1.42E-05	2.07E-05
Bone_Sur	3.26E-03	1.16E-02	2.64E-02	5.09E-02	4.31E-02	1.77E-02	9.82E-03	7.60E-03	7.06E-03	6.57E-03	6.14E-03	5.09E-03
Brain	6.95E-01	6.52E-01	5.73E-01	3.87E-01	1.95E-01	1.18E-01	1.17E-01	1.18E-01	1.08E-01	9.92E-02	9.20E-02	7.35E-02
Breasts	0.0	0.0	0.0	0.0	3.79E-07	3.73E-05	1.27E-04	1.95E-04	2.51E-04	3.50E-04	4.12E-04	4.50E-04
St_Wall	0.0	0.0	0.0	0.0	3.30E-09	1.43E-06	8.25E-06	1.93E-05	5.69E-05	9.89E-05	1.26E-04	1.46E-04
SI_Wall	0.0	0.0	0.0	0.0	0.0	7.22E-08	9.61E-07	3.35E-06	1.10E-05	2.23E-05	3.49E-05	4.80E-05
ULI_Wall	0.0	0.0	0.0	0.0	0.0	1.02E-07	1.23E-06	4.07E-06	1.28E-05	2.81E-05	5.03E-05	6.50E-05
LLI_Wall	0.0	0.0	0.0	0.0	1.66E-08	2.86E-07	1.17E-06	4.61E-06	1.19E-05	1.77E-05	2.34E-05	4.60E-05
Kidneys	0.0	0.0	0.0	0.0	8.61E-10	6.97E-07	5.12E-06	1.16E-05	3.02E-05	5.61E-05	7.84E-05	9.85E-05
Liver	0.0	0.0	0.0	0.0	6.41E-09	2.19E-06	3.10E-05	5.53E-05	1.06E-04	1.56E-04	1.83E-04	1.98E-04
ET1-bas	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03
ET2-bas	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03
LN-ET	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03
BBi-bas	0.0	0.0	8.40E-09	1.22E-05	1.75E-04	3.45E-04	4.42E-04	6.12E-04	7.29E-04	7.85E-04	8.12E-04	8.24E-04
BBi-sec	0.0	0.0	8.40E-09	1.22E-05	1.75E-04	3.45E-04	4.42E-04	6.12E-04	7.29E-04	7.85E-04	8.12E-04	8.24E-04
bbe-sec	0.0	0.0	8.40E-09	1.22E-05	1.75E-04	3.45E-04	4.42E-04	6.12E-04	7.29E-04	7.85E-04	8.12E-04	8.24E-04
AI	0.0	0.0	8.40E-09	1.22E-05	1.75E-04	3.45E-04	4.42E-04	6.12E-04	7.29E-04	7.85E-04	8.12E-04	8.24E-04
LN-Th	0.0	0.0	8.40E-09	1.22E-05	1.75E-04	3.45E-04	4.42E-04	6.12E-04	7.29E-04	7.85E-04	8.12E-04	8.24E-04
Lng_Tiss	0.0	0.0	8.40E-09	1.22E-05	1.75E-04	3.45E-04	4.42E-04	6.12E-04	7.29E-04	7.85E-04	8.12E-04	8.24E-04
Lung_NP	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03
Lung_TB	0.0	0.0	8.40E-09	1.22E-05	1.75E-04	3.45E-04	4.42E-04	6.12E-04	7.29E-04	7.85E-04	8.12E-04	8.24E-04
Lung_P	0.0	0.0	8.40E-09	1.22E-05	1.75E-04	3.45E-04	4.42E-04	6.12E-04	7.29E-04	7.85E-04	8.12E-04	8.24E-04
Muscle	5.46E-07	6.87E-06	4.14E-05	5.21E-04	1.08E-03	1.09E-03	1.12E-03	1.22E-03	1.20E-03	1.14E-03	1.09E-03	9.64E-04
Ovaries	0.0	0.0	0.0	0.0	1.56E-08	3.21E-07	1.38E-06	5.58E-06	1.44E-05	2.30E-05	3.20E-05	5.36E-05
Pancreas	0.0	0.0	0.0	0.0	4.66E-09	2.06E-06	1.14E-05	3.49E-05	8.65E-05	1.30E-04	1.57E-04	1.77E-04
R_Marrow	4.24E-04	1.38E-03	3.02E-03	5.95E-03	6.43E-03	5.15E-03	4.73E-03	4.41E-03	4.16E-03	3.85E-03	3.60E-03	3.06E-03
Skin	2.57E-06	2.61E-05	1.35E-04	1.37E-03	2.17E-03	1.94E-03	2.11E-03	2.39E-03	2.45E-03	2.34E-03	2.26E-03	1.75E-03
Spleen	0.0	0.0	0.0	3.61E-09	1.65E-06	9.52E-06	5.01E-05	1.15E-04	1.60E-04	1.77E-04	1.90E-04	2.20E-04
Testes	0.0	0.0	0.0	0.0	3.77E-10	2.04E-08	1.46E-07	9.90E-07	3.61E-06	6.82E-06	1.07E-05	2.20E-05
Thymus	0.0	0.0	4.81E-10	5.35E-06	1.22E-04	2.71E-04	4.49E-04	6.49E-04	7.88E-04	8.51E-04	8.87E-04	9.68E-04
Thyroid	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03
GB_Wall	0.0	0.0	0.0	7.64E-10	6.39E-07	4.75E-06	1.23E-05	3.09E-05	5.60E-05	7.78E-05	9.73E-05	1.63E-04
Ht_Wall	0.0	0.0	0.0	3.99E-07	2.70E-05	8.97E-05	1.81E-04	2.98E-04	3.81E-04	4.29E-04	4.58E-04	5.05E-04
Uterus	0.0	0.0	0.0	1.30E-08	2.81E-07	1.24E-06	5.14E-06	1.34E-05	2.17E-05	3.04E-05	5.13E-05	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Breasts	Energy (MeV)												
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	1.24E-07	3.75E-04	2.03E-03	2.61E-03	2.43E-03	2.89E-03	2.96E-03	2.98E-03	2.91E-03	2.34E-03	
UB_Wall1	0.0	0.0	0.0	2.43E-08	6.58E-06	4.56E-05	9.62E-05	1.76E-04	2.38E-04	2.75E-04	2.95E-04	3.05E-04	
Bone_Sur	3.43E-05	1.27E-03	4.64E-03	9.67E-03	9.12E-03	4.60E-03	2.74E-03	2.24E-03	2.30E-03	2.23E-03	2.11E-03	1.75E-03	
Brain	0.0	0.0	0.0	3.79E-07	3.73E-05	1.27E-04	1.95E-04	2.51E-04	3.50E-04	4.12E-04	4.50E-04	5.26E-04	
Breasts	2.63E+00	2.27E+00	1.72E+00	8.84E-01	3.35E-01	1.96E-01	2.09E-01	2.24E-01	2.10E-01	1.93E-01	1.78E-01	1.43E-01	
St_Wall1	0.0	1.93E-08	1.84E-05	1.40E-03	2.60E-03	2.96E-03	2.87E-03	3.32E-03	3.47E-03	3.37E-03	3.24E-03	2.93E-03	
SI_Wall1	0.0	0.0	0.0	2.51E-06	1.42E-04	3.05E-04	4.47E-04	6.05E-04	7.17E-04	7.73E-04	7.98E-04	8.01E-04	
ULI_Wall1	0.0	0.0	3.19E-10	5.30E-06	2.39E-04	3.34E-04	4.44E-04	5.96E-04	7.06E-04	7.68E-04	8.12E-04	9.20E-04	
LLI_Wall1	0.0	0.0	0.0	4.76E-07	2.63E-05	8.69E-05	1.71E-04	2.72E-04	3.27E-04	3.49E-04	3.61E-04	3.85E-04	
Kidneys	0.0	0.0	5.39E-09	2.22E-05	5.13E-04	9.23E-04	1.10E-03	1.29E-03	1.60E-03	1.68E-03	1.64E-03	1.34E-03	
Liver	0.0	2.87E-08	1.73E-05	1.27E-03	3.59E-03	3.40E-03	3.41E-03	3.67E-03	3.67E-03	3.45E-03	3.35E-03	2.93E-03	
ET1-bas	0.0	0.0	4.83E-08	8.72E-05	6.19E-04	1.51E-03	1.53E-03	1.78E-03	2.01E-03	2.11E-03	2.15E-03	2.06E-03	
ET2-bas	0.0	0.0	4.83E-08	8.72E-05	6.19E-04	1.51E-03	1.53E-03	1.78E-03	2.01E-03	2.11E-03	2.15E-03	2.06E-03	
LN-ET	0.0	0.0	4.83E-08	8.72E-05	6.19E-04	1.51E-03	1.53E-03	1.78E-03	2.01E-03	2.11E-03	2.15E-03	2.06E-03	
BBi-bas	3.35E-08	5.26E-04	4.97E-03	1.82E-02	1.69E-02	1.17E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03	
BBi-sec	3.35E-08	5.26E-04	4.97E-03	1.82E-02	1.69E-02	1.17E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03	
bbe-sec	3.35E-08	5.26E-04	4.97E-03	1.82E-02	1.69E-02	1.17E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03	
AI	3.35E-08	5.26E-04	4.97E-03	1.82E-02	1.69E-02	1.17E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03	
LN-Th	3.35E-08	5.26E-04	4.97E-03	1.82E-02	1.69E-02	1.17E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03	
Lng_Tiss	3.35E-08	5.26E-04	4.97E-03	1.82E-02	1.69E-02	1.17E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03	
Lung_NP	0.0	0.0	4.83E-08	8.72E-05	6.19E-04	1.51E-03	1.53E-03	1.78E-03	2.01E-03	2.11E-03	2.15E-03	2.06E-03	
Lung_TB	3.35E-08	5.26E-04	4.97E-03	1.82E-02	1.69E-02	1.17E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03	
Lung_P	3.35E-08	5.26E-04	4.97E-03	1.82E-02	1.69E-02	1.17E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03	
Muscle	3.61E-04	1.06E-03	1.85E-03	2.70E-03	2.60E-03	2.09E-03	2.10E-03	2.30E-03	2.32E-03	2.21E-03	2.10E-03	1.84E-03	
Ovaries	0.0	0.0	0.0	1.71E-07	2.18E-05	1.08E-04	1.59E-04	2.82E-04	3.89E-04	4.28E-04	4.42E-04	4.46E-04	
Pancreas	0.0	0.0	9.07E-07	4.95E-04	2.08E-03	3.14E-03	3.14E-03	3.31E-03	3.39E-03	3.17E-03	2.96E-03	2.51E-03	
R_Marrow	1.33E-05	4.33E-04	1.49E-03	2.93E-03	2.97E-03	2.68E-03	2.78E-03	3.09E-03	3.10E-03	2.98E-03	2.84E-03	2.37E-03	
Skin	9.52E-03	1.58E-02	1.66E-02	1.11E-02	5.13E-03	3.48E-03	3.82E-03	4.18E-03	4.04E-03	3.87E-03	3.70E-03	3.13E-03	
Spleen	0.0	0.0	5.76E-07	5.70E-04	1.95E-03	2.14E-03	2.29E-03	2.61E-03	2.47E-03	2.38E-03	2.31E-03	2.12E-03	
Testes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Thymus	0.0	2.15E-06	6.77E-04	8.27E-03	1.48E-02	1.15E-02	1.21E-02	1.37E-02	1.22E-02	1.20E-02	1.18E-02	9.56E-03	
Thyroid	0.0	0.0	4.83E-08	8.72E-05	6.19E-04	1.51E-03	1.53E-03	1.78E-03	2.01E-03	2.11E-03	2.15E-03	2.06E-03	
GB_Wall1	0.0	0.0	7.75E-08	2.39E-04	9.62E-04	1.66E-03	1.66E-03	2.02E-03	2.00E-03	1.98E-03	1.92E-03		
Ht_Wall1	9.09E-07	6.34E-05	1.29E-03	1.08E-02	1.66E-02	1.32E-02	1.31E-02	1.27E-02	1.18E-02	1.10E-02	9.47E-03		
Uterus	0.0	0.0	0.0	1.32E-07	1.95E-05	9.01E-05	1.88E-04	3.31E-04	4.14E-04	4.36E-04	4.14E-04	4.33E-04	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = St_Cont	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000	
		Energy (MeV)												
Adrenals	0.0	4.00E-07	2.62E-04	6.10E-03	1.62E-02	1.41E-02	1.33E-02	1.32E-02	1.24E-02	1.05E-02	9.26E-03	7.90E-03		
UB_Wall	0.0	0.0	8.51E-09	2.49E-05	5.61E-04	7.70E-04	1.00E-03	1.25E-03	1.35E-03	1.37E-03	1.37E-03	1.34E-03		
Bone_Sur	2.34E-06	6.69E-05	7.21E-04	4.30E-03	8.54E-03	6.16E-03	3.63E-03	2.36E-03	2.24E-03	2.20E-03	2.12E-03	1.75E-03		
Brain	0.0	0.0	0.0	2.67E-09	1.31E-06	7.90E-06	4.11E-05	6.63E-05	9.53E-05	1.18E-04	1.37E-04	1.97E-04		
Breasts	0.0	3.83E-09	8.53E-06	7.77E-04	2.21E-03	2.87E-03	2.81E-03	3.10E-03	3.28E-03	3.23E-03	3.15E-03	3.04E-03		
St_Wall	3.01E-01	6.89E-01	8.45E-01	6.49E-01	3.19E-01	1.87E-01	1.84E-01	1.83E-01	1.65E-01	1.50E-01	1.38E-01	1.13E-01		
SI_Wall	1.06E-05	1.66E-04	1.18E-03	6.13E-03	1.14E-02	1.07E-02	9.39E-03	8.50E-03	7.97E-03	7.69E-03	7.37E-03	6.08E-03		
ULI_Wall	1.68E-06	1.24E-03	5.04E-03	1.53E-02	1.78E-02	1.36E-02	1.20E-02	1.15E-02	1.05E-02	9.81E-03	9.20E-03	7.44E-03		
LLI_Wall	1.73E-08	4.44E-06	2.27E-04	2.14E-03	5.36E-03	4.88E-03	4.02E-03	4.17E-03	3.93E-03	3.81E-03	3.70E-03	3.15E-03		
Kidneys	0.0	6.14E-07	3.79E-04	6.72E-03	1.54E-02	1.37E-02	1.26E-02	1.13E-02	1.06E-02	9.82E-03	9.17E-03	7.83E-03		
Liver	0.0	9.50E-06	3.99E-04	3.69E-03	8.05E-03	7.62E-03	6.88E-03	6.59E-03	6.26E-03	5.77E-03	5.38E-03	4.61E-03		
ET1-bas	0.0	0.0	0.0	5.29E-07	4.05E-05	9.67E-05	1.82E-05	3.02E-04	3.88E-04	4.34E-04	4.64E-04	5.31E-04		
ET2-bas	0.0	0.0	0.0	5.29E-07	4.05E-05	9.67E-05	1.82E-05	3.02E-04	3.88E-04	4.34E-04	4.64E-04	5.31E-04		
LN-ET	0.0	0.0	0.0	5.29E-07	4.05E-05	9.67E-05	1.82E-05	3.02E-04	3.88E-04	4.34E-04	4.64E-04	5.31E-04		
BBi-bas	9.01E-08	2.24E-05	1.12E-03	5.07E-03	6.99E-03	5.78E-03	5.02E-03	5.00E-03	5.01E-03	4.71E-03	4.40E-03	3.62E-03		
BBi-sec	9.01E-08	2.24E-05	1.12E-03	5.07E-03	6.99E-03	5.78E-03	5.02E-03	5.00E-03	5.01E-03	4.71E-03	4.40E-03	3.62E-03		
bbe-sec	9.01E-08	2.24E-05	1.12E-03	5.07E-03	6.99E-03	5.78E-03	5.02E-03	5.00E-03	5.01E-03	4.71E-03	4.40E-03	3.62E-03		
AI	9.01E-08	2.24E-05	1.12E-03	5.07E-03	6.99E-03	5.78E-03	5.02E-03	5.00E-03	5.01E-03	4.71E-03	4.40E-03	3.62E-03		
LN-Th	9.01E-08	2.24E-05	1.12E-03	5.07E-03	6.99E-03	5.78E-03	5.02E-03	5.00E-03	5.01E-03	4.71E-03	4.40E-03	3.62E-03		
Lng_Tiss	9.01E-08	2.24E-05	1.12E-03	5.07E-03	6.99E-03	5.78E-03	5.02E-03	5.00E-03	5.01E-03	4.71E-03	4.40E-03	3.62E-03		
Lung_NP	0.0	0.0	0.0	5.29E-07	4.05E-05	9.67E-05	1.82E-04	3.02E-04	3.88E-04	4.34E-04	4.64E-04	5.31E-04		
Lung_TB	9.01E-08	2.24E-05	1.12E-03	5.07E-03	6.99E-03	5.78E-03	5.02E-03	5.00E-03	5.01E-03	4.71E-03	4.40E-03	3.62E-03		
Lung_P	9.01E-08	2.24E-05	1.12E-03	5.07E-03	6.99E-03	5.78E-03	5.02E-03	5.00E-03	5.01E-03	4.71E-03	4.40E-03	3.62E-03		
Muscle	3.06E-05	9.75E-04	3.48E-03	7.02E-03	6.87E-03	5.12E-03	4.71E-03	4.64E-03	4.41E-03	4.15E-03	3.93E-03	3.31E-03		
Ovaries	0.0	0.0	1.08E-06	1.58E-04	1.74E-03	2.97E-03	2.76E-03	3.12E-03	2.91E-03	2.91E-03	2.89E-03	2.46E-03		
Pancreas	9.39E-04	9.26E-03	4.70E-02	1.17E-01	9.87E-02	6.35E-02	5.70E-02	5.23E-02	4.67E-02	4.30E-02	4.00E-02	3.18E-02		
R_Marrow	9.84E-07	2.39E-05	2.30E-04	1.31E-03	3.01E-03	3.70E-03	3.77E-03	4.02E-03	3.61E-03	3.37E-03	3.23E-03	2.89E-03		
Skin	3.84E-07	2.09E-05	3.56E-04	1.28E-03	1.81E-03	1.71E-03	1.75E-03	2.02E-03	2.02E-03	1.90E-03	1.82E-03	1.78E-03		
Spleen	2.86E-10	1.71E-04	7.33E-03	4.81E-02	5.72E-02	4.15E-02	3.58E-02	3.26E-02	2.88E-02	2.66E-02	2.48E-02	1.94E-02		
Testes	0.0	0.0	4.64E-07	3.78E-05	1.04E-04	2.09E-04	3.61E-04	4.48E-04	4.80E-04	4.96E-04	5.19E-04			
Thymus	0.0	0.0	2.36E-07	1.40E-04	8.45E-04	1.72E-03	1.98E-03	2.27E-03	2.49E-03	2.58E-03	2.56E-03	2.15E-03		
Thyroid	0.0	0.0	0.0	5.29E-07	4.05E-05	9.67E-05	1.82E-04	3.02E-04	3.88E-04	4.34E-04	4.64E-04	5.31E-04		
GB_Wall	0.0	3.48E-07	2.41E-04	6.01E-03	1.82E-02	1.56E-02	1.41E-02	1.32E-02	1.19E-02	1.04E-02	9.59E-03	8.98E-03		
Ht_Wall	3.68E-07	3.61E-05	9.34E-04	8.31E-03	1.50E-02	1.24E-02	1.10E-02	1.05E-02	9.11E-03	8.85E-03	8.64E-03	8.06E-03		
Uterus	0.0	0.0	2.83E-07	1.73E-04	1.39E-03	2.56E-03	2.37E-03	2.52E-03	2.37E-03	2.87E-03	2.76E-03	2.34E-03		

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = St_Wall	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	1.25E-06	3.97E-04	6.47E-03	1.63E-02	1.48E-02	1.27E-02	1.15E-02	1.08E-02	9.97E-03	8.22E-03	
UB_Wall	0.0	0.0	1.70E-08	3.17E-05	5.91E-04	7.72E-04	9.77E-04	1.19E-03	1.28E-03	1.34E-03	1.36E-03	
Bone_Sur	2.34E-06	6.69E-05	7.21E-04	4.30E-03	8.54E-03	6.16E-03	3.63E-03	2.36E-03	2.24E-03	2.20E-03	1.12E-03	
Brain	0.0	0.0	0.0	3.30E-09	1.43E-06	8.25E-06	1.93E-05	5.69E-05	9.89E-05	1.26E-04	1.46E-04	
Breasts	0.0	1.93E-08	1.84E-05	1.40E-03	2.60E-03	2.96E-03	2.87E-03	3.32E-03	3.47E-03	3.37E-03	3.24E-03	
St_Wall	5.45E+00	3.59E+00	2.29E+00	1.08E+00	4.42E-01	2.60E-01	2.61E-01	2.72E-01	2.58E-01	2.38E-01	2.21E-01	
SI_Wall	3.33E-04	1.25E-03	3.00E-03	7.84E-03	1.29E-02	1.14E-02	9.99E-03	9.59E-03	8.75E-03	8.21E-03	7.75E-03	
ULI_Wall	2.58E-04	4.76E-03	1.38E-02	2.17E-02	2.12E-02	1.50E-02	1.35E-02	1.24E-02	1.22E-02	1.11E-02	9.99E-03	
LLI_Wall	4.59E-08	1.26E-05	6.81E-04	2.83E-03	5.67E-03	4.94E-03	4.62E-03	4.20E-03	4.34E-03	4.05E-03	3.78E-03	
Kidneys	0.0	1.80E-06	4.17E-04	7.56E-03	1.51E-02	1.31E-02	1.18E-02	1.13E-02	1.08E-02	9.92E-03	9.23E-03	
Liver	8.94E-08	1.52E-05	5.83E-04	4.47E-03	7.90E-03	7.74E-03	6.89E-03	7.03E-03	6.32E-03	5.82E-03	5.55E-03	
ET1-bas	0.0	0.0	0.0	6.65E-07	4.41E-05	1.18E-04	2.77E-04	3.99E-04	4.83E-04	5.39E-04	5.64E-04	
ET2-bas	0.0	0.0	0.0	6.65E-07	4.41E-05	1.18E-04	2.77E-04	3.99E-04	4.83E-04	5.39E-04	5.64E-04	
LN-ET	0.0	0.0	0.0	6.65E-07	4.41E-05	1.18E-04	2.77E-04	3.99E-04	4.83E-04	5.39E-04	5.64E-04	
BBi-bas	1.23E-04	6.83E-04	2.31E-03	6.23E-03	7.80E-03	6.26E-03	5.53E-03	5.17E-03	5.05E-03	4.64E-03	4.36E-04	
BBi-sec	1.23E-04	6.83E-04	2.31E-03	6.23E-03	7.80E-03	6.26E-03	5.53E-03	5.17E-03	5.05E-03	4.64E-03	4.36E-04	
bbe-sec	1.23E-04	6.83E-04	2.31E-03	6.23E-03	7.80E-03	6.26E-03	5.53E-03	5.17E-03	5.05E-03	4.64E-03	4.36E-04	
AI	1.23E-04	6.83E-04	2.31E-03	6.23E-03	7.80E-03	6.26E-03	5.53E-03	5.17E-03	5.05E-03	4.64E-03	4.36E-04	
LN-Th	1.23E-04	6.83E-04	2.31E-03	6.23E-03	7.80E-03	6.26E-03	5.53E-03	5.17E-03	5.05E-03	4.64E-03	4.36E-04	
Lng_Tiss	1.23E-04	6.83E-04	2.31E-03	6.23E-03	7.80E-03	6.26E-03	5.53E-03	5.17E-03	5.05E-03	4.64E-03	4.36E-04	
Lung_NP	0.0	0.0	0.0	6.65E-07	4.41E-05	1.18E-04	2.77E-04	3.99E-04	4.83E-04	5.39E-04	5.64E-04	
Lung_TB	1.23E-04	6.83E-04	2.31E-03	6.23E-03	7.80E-03	6.26E-03	5.53E-03	5.17E-03	5.05E-03	4.64E-03	4.36E-04	
Lung_P	1.23E-04	6.83E-04	2.31E-03	6.23E-03	7.80E-03	6.26E-03	5.53E-03	5.17E-03	5.05E-03	4.64E-03	4.36E-04	
Muscle	1.98E-03	5.01E-03	7.46E-03	8.99E-03	7.43E-03	5.46E-03	5.12E-03	5.08E-03	4.78E-03	4.6E-03	4.19E-03	
Ovaries	0.0	1.33E-10	2.10E-06	3.92E-04	1.91E-03	2.99E-03	2.85E-03	3.22E-03	3.28E-03	3.11E-03	2.52E-03	
Pancreas	2.58E-03	3.43E-02	8.88E-02	1.30E-01	1.02E-01	6.50E-02	5.76E-02	5.48E-02	4.96E-02	4.51E-02	3.38E-02	
R_Marrow	9.84E-07	2.39E-05	2.30E-04	1.31E-03	3.01E-03	3.70E-03	3.77E-03	4.02E-03	3.61E-03	3.37E-03	3.23E-03	
Skin	3.22E-06	5.90E-05	4.65E-04	1.71E-03	1.90E-03	1.73E-03	1.83E-03	2.10E-03	1.97E-03	1.88E-03	1.81E-03	
Spleen	1.53E-08	6.71E-04	1.10E-02	5.23E-02	5.94E-02	4.12E-02	3.46E-02	3.24E-02	2.93E-02	2.66E-02	2.09E-02	
Testes	0.0	0.0	0.0	5.83E-07	4.10E-05	1.63E-04	3.07E-04	4.08E-04	4.73E-04	4.96E-04	5.06E-04	
Thymus	0.0	0.0	4.35E-07	1.78E-04	9.08E-04	1.81E-03	1.81E-03	2.29E-03	2.36E-03	2.42E-03	2.43E-03	
Thyroid	0.0	0.0	0.0	6.65E-07	4.41E-05	1.18E-04	2.77E-04	3.99E-04	4.83E-04	5.39E-04	5.64E-04	
GB_Wall	0.0	1.18E-06	3.99E-04	7.34E-03	1.76E-02	1.62E-02	1.47E-02	1.18E-02	1.02E-02	9.01E-03	7.47E-03	
Ht_Wall	3.85E-06	1.76E-04	2.64E-03	1.19E-02	1.67E-02	1.37E-02	1.19E-02	1.10E-02	1.00E-02	9.35E-03	8.55E-03	
Uterus	0.0	0.0	5.51E-07	1.45E-04	1.49E-03	2.78E-03	2.70E-03	3.10E-03	3.15E-03	2.86E-03	2.95E-03	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = SI_Cont	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	2.04E-06	4.08E-04	2.26E-03	3.79E-03	3.62E-03	3.60E-03	3.58E-03	3.54E-03	3.60E-03	3.93E-03
UB_Wall	0.0	8.07E-07	2.86E-04	4.31E-03	1.21E-02	1.14E-02	1.01E-02	9.12E-03	8.18E-03	7.94E-03	7.72E-03	6.53E-03
Bone_Sur	3.47E-04	1.12E-03	2.85E-03	8.74E-03	1.41E-02	8.99E-03	4.99E-03	3.26E-03	3.10E-03	2.84E-03	2.64E-03	2.43E-03
Brain	0.0	0.0	0.0	0.0	7.22E-08	9.61E-07	3.35E-06	1.10E-05	2.23E-05	3.49E-05	4.80E-05	8.30E-05
Breasts	0.0	0.0	0.0	2.51E-06	1.42E-04	3.05E-04	4.47E-04	6.05E-04	7.17E-04	7.73E-04	7.98E-04	8.01E-04
St_Wall	3.33E-04	1.25E-03	3.00E-03	7.84E-03	1.29E-02	1.14E-02	9.99E-03	9.59E-03	8.75E-03	8.21E-03	7.75E-03	6.34E-03
SI_Wall	6.97E-02	1.69E-01	2.18E-01	1.88E-01	1.10E-01	6.87E-02	6.19E-02	5.77E-02	5.23E-02	4.86E-02	4.62E-02	3.57E-02
ULI_Wall	7.18E-02	1.44E-01	1.84E-01	1.72E-01	1.09E-01	6.84E-02	6.34E-02	6.12E-02	5.46E-02	5.08E-02	4.76E-02	3.71E-02
LLI_Wall	2.61E-02	5.61E-02	7.18E-02	6.60E-02	4.38E-02	2.99E-02	2.74E-02	2.63E-02	2.44E-02	2.22E-02	2.04E-02	1.68E-02
Kidneys	4.53E-08	1.27E-05	6.97E-04	5.86E-03	1.18E-02	1.14E-02	1.03E-02	9.54E-03	9.10E-03	8.44E-03	7.86E-03	6.56E-03
Liver	6.30E-05	2.53E-04	7.37E-04	2.72E-03	5.91E-03	6.03E-03	5.53E-03	5.32E-03	5.02E-03	4.89E-03	4.73E-03	3.98E-03
ET1-bas	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-06	3.21E-05	5.95E-05	9.22E-05	1.18E-05	1.41E-04	2.13E-04
ET2-bas	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-05	1.41E-04	2.13E-04
LN-ET	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-05	1.41E-04	2.13E-04
BBi-bas	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
BBi-sec	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
bbe-sec	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
AI	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
LN-Th	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
Lng_Tiss	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
Lung_NP	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-05	1.41E-04	2.13E-04	
Lung_TB	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
Lung_P	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
Muscle	6.87E-04	2.08E-03	3.86E-03	6.61E-03	7.10E-03	5.73E-03	5.25E-03	5.11E-03	4.87E-03	4.54E-03	4.27E-03	3.61E-03
Ovaries	2.66E-03	1.98E-02	5.27E-02	8.80E-02	7.10E-02	4.77E-02	4.24E-02	3.95E-02	3.65E-02	3.32E-02	3.05E-02	2.47E-02
Pancreas	0.0	3.77E-08	3.29E-05	1.63E-03	6.73E-03	7.44E-03	6.64E-03	6.48E-03	5.72E-03	5.22E-03	4.89E-03	4.14E-03
R_Marrow	2.68E-04	7.79E-04	1.82E-03	5.12E-03	8.87E-03	9.09E-03	8.56E-03	8.31E-03	7.81E-03	7.00E-03	6.40E-03	5.40E-03
Skin	1.11E-09	7.69E-07	7.98E-05	7.14E-04	1.41E-03	1.48E-03	1.52E-03	1.69E-03	1.79E-03	1.83E-03	1.80E-03	1.50E-03
Spleen	0.0	2.11E-07	5.01E-05	1.35E-03	4.41E-03	5.20E-03	4.81E-03	4.83E-03	4.48E-03	4.32E-03	4.16E-03	3.53E-03
Testes	0.0	0.0	2.04E-08	4.22E-05	6.53E-04	1.34E-03	1.32E-03	1.61E-03	1.83E-03	1.80E-03	1.72E-03	1.53E-03
Thymus	0.0	0.0	0.0	8.60E-07	5.28E-05	1.77E-04	3.14E-04	3.89E-04	4.51E-04	5.00E-04	5.41E-04	6.54E-04
Thyroid	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-04	1.41E-04	2.13E-04
GB_Wall	7.35E-05	9.50E-04	5.83E-03	2.25E-02	2.93E-02	2.31E-02	2.01E-02	1.87E-02	1.64E-02	1.55E-02	1.46E-02	1.14E-02
Ht_Wall	0.0	0.0	1.06E-08	2.69E-05	3.31E-04	9.83E-04	1.08E-03	1.30E-03	1.34E-03	1.33E-03	1.34E-03	1.34E-03
Uterus	1.49E-06	2.07E-03	1.98E-02	6.14E-02	6.36E-02	4.44E-02	3.83E-02	3.42E-02	3.14E-02	2.88E-02	2.66E-02	2.09E-02

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = SI_Wall	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	2.04E-06	4.08E-04	2.26E-03	3.79E-03	3.62E-03	3.60E-03	3.58E-03	3.60E-03	3.54E-03	2.93E-03
UB_Wall	0.0	8.07E-07	2.86E-04	4.31E-03	1.21E-02	1.14E-02	1.01E-02	9.12E-03	8.18E-03	7.94E-03	7.72E-03	6.53E-03
Bone_Sur	3.47E-04	1.12E-03	2.85E-03	8.74E-03	1.41E-02	8.99E-03	4.99E-03	3.26E-03	3.10E-03	2.84E-03	2.64E-03	2.43E-03
Brain	0.0	0.0	0.0	0.0	7.22E-08	9.61E-07	3.35E-06	1.10E-05	2.23E-05	3.49E-05	4.80E-05	8.30E-05
Breasts	0.0	0.0	0.0	2.51E-06	1.42E-04	3.05E-04	4.47E-04	6.05E-04	7.17E-04	7.73E-04	7.98E-04	8.01E-04
St_Wall	3.33E-04	1.25E-03	3.00E-03	7.84E-03	1.29E-02	1.14E-02	9.99E-03	9.59E-03	8.75E-03	8.21E-03	7.75E-03	6.34E-03
SI_Wall	6.97E-02	1.69E-01	2.18E-01	1.88E-01	1.10E-01	6.87E-02	6.19E-02	5.77E-02	5.23E-02	4.86E-02	4.62E-02	3.57E-02
ULI_Wall	7.18E-02	1.44E-01	1.84E-01	1.72E-01	1.09E-01	6.84E-02	6.34E-02	6.12E-02	5.46E-02	5.08E-02	4.76E-02	3.71E-02
LLI_Wall	2.61E-02	5.61E-02	7.18E-02	6.60E-02	4.38E-02	2.99E-02	2.74E-02	2.63E-02	2.44E-02	2.22E-02	2.04E-02	1.68E-02
Kidneys	4.53E-08	1.27E-05	6.97E-04	5.86E-03	1.18E-02	1.14E-02	1.03E-02	9.54E-03	9.10E-03	8.44E-03	7.86E-03	6.56E-03
Liver	6.30E-05	2.53E-04	7.37E-04	2.72E-03	5.91E-03	6.03E-03	5.53E-03	5.32E-03	5.02E-03	4.89E-03	4.73E-03	3.98E-03
ET1-bas	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-06	3.21E-05	5.95E-05	9.22E-05	1.18E-05	1.41E-04	2.13E-04
ET2-bas	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-05	1.41E-04	2.13E-04
LN-ET	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-05	1.41E-04	2.13E-04
BBi-bas	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
BBi-sec	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
bbe-sec	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
AI	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
LN-Th	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
Lng_Tiss	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
Lung_NP	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-05	1.41E-04	2.13E-04	
Lung_TB	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
Lung_P	0.0	0.0	1.48E-08	2.02E-05	3.23E-04	6.44E-04	7.22E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
Muscle	6.87E-04	2.08E-03	3.86E-03	6.61E-03	7.10E-03	5.73E-03	5.25E-03	5.11E-03	4.87E-03	4.54E-03	4.27E-03	3.61E-03
Ovaries	2.66E-03	1.98E-02	5.27E-02	8.80E-02	7.10E-02	4.77E-02	4.24E-02	3.95E-02	3.65E-02	3.32E-02	3.05E-02	2.47E-02
Pancreas	0.0	3.77E-08	3.29E-05	1.63E-03	6.73E-03	7.44E-03	6.64E-03	6.48E-03	5.72E-03	5.22E-03	4.89E-03	4.14E-03
R_Marrow	2.68E-04	7.79E-04	1.82E-03	5.12E-03	8.87E-03	9.09E-03	8.56E-03	8.31E-03	7.81E-03	7.00E-03	6.40E-03	5.40E-03
Skin	1.11E-09	7.69E-07	7.98E-05	7.14E-04	1.41E-03	1.48E-03	1.52E-03	1.69E-03	1.79E-03	1.83E-03	1.80E-03	1.50E-03
Spleen	0.0	2.11E-07	5.01E-05	1.35E-03	4.41E-03	5.20E-03	4.81E-03	4.83E-03	4.48E-03	4.32E-03	4.16E-03	3.53E-03
Testes	0.0	0.0	2.04E-08	4.22E-05	6.53E-04	1.34E-03	1.32E-03	1.61E-03	1.83E-03	1.80E-03	1.72E-03	1.53E-03
Thymus	0.0	0.0	0.0	8.60E-07	5.28E-05	1.77E-04	3.14E-04	3.89E-04	4.51E-04	5.00E-04	5.41E-04	6.54E-04
Thyroid	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-04	1.41E-04	2.13E-04
GB_Wall	7.35E-05	9.50E-04	5.83E-03	2.25E-02	2.93E-02	2.31E-02	2.01E-02	1.87E-02	1.64E-02	1.55E-02	1.46E-02	1.14E-02
Ht_Wall	0.0	0.0	1.06E-08	2.69E-05	3.31E-04	9.83E-04	1.08E-03	1.30E-03	1.34E-03	1.33E-03	1.34E-03	1.34E-03
Uterus	1.49E-06	2.07E-03	1.98E-02	6.14E-02	6.36E-02	4.44E-02	3.83E-02	3.42E-02	3.14E-02	2.88E-02	2.66E-02	2.09E-02

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = ULI_Cont	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	2.09E-06	6.37E-04	2.96E-03	5.14E-03	4.32E-03	4.07E-03	3.84E-03	3.62E-03	3.72E-03	3.26E-03
UB_Wall	0.0	6.09E-07	1.27E-04	3.05E-03	7.47E-03	8.34E-03	7.58E-03	7.38E-03	6.57E-03	5.98E-03	5.63E-03	5.15E-03
Bone_Sur	2.32E-05	3.06E-04	1.91E-03	7.54E-03	1.18E-02	7.68E-03	4.33E-03	2.87E-03	2.62E-03	2.47E-03	2.35E-03	2.03E-03
Brain	0.0	0.0	0.0	0.0	9.93E-08	1.21E-06	4.02E-06	1.27E-05	2.74E-05	4.11E-05	5.36E-05	9.79E-05
Breasts	0.0	0.0	2.70E-10	5.14E-06	1.88E-04	3.27E-04	4.96E-04	7.08E-04	8.17E-04	8.57E-04	8.78E-04	9.22E-04
St_Wall	4.76E-04	2.67E-03	9.06E-03	2.11E-02	2.01E-02	1.53E-02	1.30E-02	1.25E-02	1.17E-02	1.08E-02	1.02E-02	8.81E-03
SI_Wall	4.59E-03	4.44E-02	1.10E-01	1.43E-01	1.01E-01	6.40E-02	5.81E-02	5.51E-02	4.91E-02	4.53E-02	4.21E-02	3.24E-02
ULI_Wall	3.35E-01	7.33E-01	8.23E-01	5.49E-01	2.55E-01	1.53E-01	1.49E-01	1.46E-01	1.40E-01	1.28E-01	1.17E-01	9.41E-02
LLI_Wall	6.16E-05	3.81E-03	1.12E-02	1.67E-02	1.52E-02	1.13E-02	1.04E-02	1.06E-02	1.00E-02	9.17E-03	8.43E-03	6.60E-03
Kidneys	0.0	4.65E-07	1.81E-04	4.72E-03	1.14E-02	1.08E-02	1.03E-02	9.30E-03	8.77E-03	8.66E-03	8.40E-03	6.80E-03
Liver	9.35E-06	1.89E-04	1.59E-03	7.16E-03	1.14E-02	9.68E-03	8.75E-03	8.58E-03	8.34E-03	7.64E-03	7.06E-03	5.99E-03
ET1-bas	0.0	0.0	0.0	0.0	6.29E-09	2.86E-06	2.46E-05	2.46E-05	2.46E-05	1.16E-04	1.66E-04	1.98E-04
ET2-bas	0.0	0.0	0.0	0.0	6.29E-09	2.86E-06	2.46E-05	2.46E-05	2.46E-05	1.16E-04	1.66E-04	1.98E-04
LN-ET	0.0	0.0	0.0	0.0	6.29E-09	2.86E-06	2.46E-05	2.46E-05	2.46E-05	1.16E-04	1.66E-04	1.98E-04
BBi-bas	0.0	0.0	2.98E-08	3.75E-05	4.00E-04	8.90E-04	8.73E-04	8.73E-04	8.73E-04	8.73E-03	1.15E-03	1.24E-03
BBi-sec	0.0	0.0	2.98E-08	3.75E-05	4.00E-04	8.90E-04	8.73E-04	8.73E-04	8.73E-04	8.73E-03	1.15E-03	1.24E-03
bbe-sec	0.0	0.0	2.98E-08	3.75E-05	4.00E-04	8.90E-04	8.73E-04	8.73E-04	8.73E-04	8.73E-03	1.15E-03	1.24E-03
AI	0.0	0.0	2.98E-08	3.75E-05	4.00E-04	8.90E-04	8.73E-04	8.73E-04	8.73E-04	8.73E-03	1.15E-03	1.24E-03
LN-Th	0.0	0.0	2.98E-08	3.75E-05	4.00E-04	8.90E-04	8.73E-04	8.73E-04	8.73E-04	8.73E-03	1.15E-03	1.24E-03
Lng_Tiss	0.0	0.0	2.98E-08	3.75E-05	4.00E-04	8.90E-04	8.73E-04	8.73E-04	8.73E-04	8.73E-03	1.15E-03	1.24E-03
Lung_NP	0.0	0.0	6.29E-09	2.86E-06	4.00E-04	8.90E-04	8.73E-04	8.73E-04	8.73E-04	8.73E-03	1.15E-03	1.24E-03
Lung_TB	0.0	0.0	2.98E-08	3.75E-05	4.00E-04	8.90E-04	8.73E-04	8.73E-04	8.73E-04	8.73E-03	1.15E-03	1.24E-03
Lung_P	0.0	0.0	2.98E-08	3.75E-05	4.00E-04	8.90E-04	8.73E-04	8.73E-04	8.73E-04	8.73E-03	1.15E-03	1.24E-03
Muscle	6.14E-05	7.45E-04	2.73E-03	6.28E-03	6.87E-03	5.47E-03	5.01E-03	4.90E-03	4.13E-03	4.06E-03	4.31E-03	3.45E-03
Ovaries	1.65E-04	1.59E-02	5.39E-02	7.85E-02	5.94E-02	3.95E-02	3.48E-02	3.29E-02	3.12E-02	2.82E-02	2.56E-02	2.01E-02
Pancreas	0.0	5.39E-08	6.59E-05	2.53E-03	8.69E-03	8.44E-03	7.57E-03	7.09E-03	6.80E-03	5.95E-03	5.41E-03	5.05E-03
R_Marrow	1.82E-05	2.14E-04	1.24E-03	4.40E-03	7.09E-03	7.29E-03	6.89E-03	7.09E-03	6.17E-03	5.67E-03	5.33E-03	4.43E-03
Skin	0.0	1.45E-06	8.81E-05	8.13E-04	1.54E-03	1.54E-03	1.64E-03	1.72E-03	1.82E-03	1.90E-03	1.88E-03	1.48E-03
Spleen	0.0	9.08E-08	5.02E-05	1.76E-03	4.56E-03	5.54E-03	4.81E-03	4.41E-03	4.14E-03	3.94E-03	3.78E-03	3.38E-03
Testes	0.0	0.0	2.64E-08	4.32E-05	6.48E-04	8.55E-04	1.06E-03	1.28E-03	1.40E-03	1.45E-03	1.48E-03	1.54E-03
Thymus	0.0	0.0	0.0	1.62E-06	8.12E-05	2.11E-04	3.65E-04	5.03E-04	5.62E-04	5.93E-04	6.16E-04	6.71E-04
Thyroid	0.0	0.0	0.0	6.29E-09	2.86E-06	2.46E-05	5.82E-05	1.16E-04	1.66E-04	1.98E-04	2.16E-04	2.34E-04
GB_Wall	4.39E-06	3.45E-03	2.32E-02	6.05E-02	5.52E-02	3.87E-02	3.45E-02	3.08E-02	2.62E-02	2.54E-02	2.45E-02	1.85E-02
Ht_Wall	0.0	0.0	2.70E-08	4.84E-05	5.45E-04	1.38E-03	1.61E-03	1.52E-03	1.71E-03	1.79E-03	1.54E-03	1.06E-02
Uterus	0.0	7.95E-06	1.04E-03	1.26E-02	2.62E-02	2.14E-02	1.83E-02	1.56E-02	1.42E-02	1.29E-02	1.06E-02	1.06E-02

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = ULI_Wall	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	2.50E-06	6.83E-04	3.11E-03	5.08E-03	4.08E-03	4.25E-03	4.41E-03	3.88E-03	3.14E-03	3.27E-03
UB_Wall	0.0	1.20E-06	1.65E-04	2.67E-03	8.02E-03	8.18E-03	7.25E-03	7.04E-03	6.34E-03	5.80E-03	4.46E-03	4.6E-03
Bone_Sur	2.32E-05	3.06E-04	1.91E-03	7.54E-03	1.18E-02	7.68E-03	4.33E-03	2.87E-03	2.62E-03	2.47E-03	2.35E-03	2.03E-03
Brain	0.0	0.0	0.0	0.0	1.02E-07	1.23E-06	4.07E-06	1.28E-05	2.81E-05	5.03E-05	6.50E-05	8.32E-05
Breasts	0.0	0.0	3.19E-10	5.30E-06	2.39E-04	3.34E-04	4.44E-04	5.96E-04	7.06E-04	7.68E-04	8.12E-04	9.20E-04
St_Wall	2.58E-04	4.76E-03	1.38E-02	2.17E-02	2.12E-02	1.50E-02	1.35E-02	1.24E-02	1.22E-02	1.11E-02	9.99E-03	7.93E-03
SI_Wall	7.18E-02	1.44E-01	1.84E-01	1.72E-01	1.09E-01	6.84E-02	6.34E-02	6.12E-02	5.46E-02	5.08E-02	4.76E-02	3.71E-02
ULI_Wall	3.87E+00	2.55E+00	1.64E+00	7.83E-01	3.31E-01	1.97E-01	1.98E-01	2.06E-01	1.93E-01	1.74E-01	1.60E-01	1.26E-01
LLI_Wall	1.82E-03	9.01E-03	1.63E-02	1.83E-02	1.53E-02	1.23E-02	1.11E-02	1.03E-02	1.02E-02	9.10E-03	8.27E-03	7.08E-03
Kidneys	0.0	1.25E-06	3.69E-04	5.19E-03	1.19E-02	1.07E-02	1.04E-02	9.34E-03	7.86E-03	7.53E-03	7.28E-03	5.96E-03
Liver	4.08E-05	3.76E-04	1.82E-03	6.98E-03	1.15E-02	9.86E-03	8.63E-03	8.25E-03	8.26E-03	7.87E-03	7.33E-03	5.51E-03
ET1-bas	0.0	0.0	0.0	0.0	6.60E-09	2.92E-06	2.49E-05	5.81E-05	1.20E-04	1.67E-04	1.99E-04	2.18E-04
ET2-bas	0.0	0.0	0.0	0.0	6.60E-09	2.92E-06	2.49E-05	5.81E-05	1.20E-04	1.67E-04	1.99E-04	2.18E-04
LN-ET	0.0	0.0	0.0	0.0	6.60E-09	2.92E-06	2.49E-05	5.81E-05	1.20E-04	1.67E-04	1.99E-04	2.18E-04
BBi-bas	0.0	0.0	3.64E-08	5.22E-05	4.43E-04	8.74E-04	9.64E-04	1.06E-03	1.18E-03	1.14E-03	1.09E-03	1.02E-03
BBe-sec	0.0	0.0	3.64E-08	5.22E-05	4.43E-04	8.74E-04	9.64E-04	1.06E-03	1.18E-03	1.14E-03	1.09E-03	1.02E-03
AI	0.0	0.0	3.64E-08	5.22E-05	4.43E-04	8.74E-04	9.64E-04	1.06E-03	1.18E-03	1.14E-03	1.09E-03	1.02E-03
LN-Th	0.0	0.0	3.64E-08	5.22E-05	4.43E-04	8.74E-04	9.64E-04	1.06E-03	1.18E-03	1.14E-03	1.09E-03	1.02E-03
Lng_Tiss	0.0	0.0	3.64E-08	5.22E-05	4.43E-04	8.74E-04	9.64E-04	1.06E-03	1.18E-03	1.14E-03	1.09E-03	1.02E-03
Lung_NP	0.0	0.0	6.60E-09	2.92E-06	2.49E-05	5.81E-05	9.64E-04	1.06E-03	1.18E-03	1.14E-03	1.09E-03	1.02E-03
Lung_TB	0.0	0.0	3.64E-08	5.22E-05	4.43E-04	8.74E-04	9.64E-04	1.06E-03	1.18E-03	1.14E-03	1.09E-03	1.02E-03
Lung_P	0.0	0.0	3.64E-08	5.22E-05	4.43E-04	8.74E-04	9.64E-04	1.06E-03	1.18E-03	1.14E-03	1.09E-03	1.02E-03
Muscle	5.40E-04	2.08E-03	4.15E-03	6.97E-03	7.11E-03	5.58E-03	5.18E-03	5.04E-03	4.70E-03	4.45E-03	4.22E-03	3.53E-03
Ovaries	7.53E-03	5.96E-02	1.01E-01	9.75E-02	6.43E-02	4.25E-02	3.81E-02	3.49E-02	3.29E-02	3.12E-02	2.95E-02	2.41E-02
Pancreas	0.0	8.69E-08	7.41E-05	3.06E-03	8.53E-03	8.99E-03	7.57E-03	6.92E-03	6.21E-03	5.98E-03	5.80E-03	5.01E-03
R_Marrow	1.82E-05	2.14E-04	1.24E-03	4.40E-03	7.09E-03	7.29E-03	6.89E-03	7.09E-03	6.17E-03	5.67E-03	5.33E-03	4.43E-03
Skin	1.88E-08	3.82E-06	1.66E-04	8.32E-04	1.50E-03	1.48E-03	1.60E-03	1.80E-03	1.81E-03	1.75E-03	1.69E-03	1.52E-03
Spleen	0.0	1.89E-07	6.47E-05	1.63E-03	4.68E-03	5.51E-03	4.96E-03	4.37E-03	4.40E-03	4.24E-03	4.07E-03	3.73E-03
Testes	0.0	0.0	2.77E-08	4.37E-05	6.55E-04	8.24E-04	9.93E-04	1.19E-03	1.32E-03	1.39E-03	1.43E-03	1.54E-03
Thymus	0.0	0.0	0.0	1.68E-06	8.25E-05	1.98E-04	3.61E-04	5.65E-04	6.54E-04	6.75E-04	6.80E-04	6.71E-04
Thyroid	0.0	0.0	0.0	6.60E-09	2.92E-06	2.49E-05	5.81E-05	1.20E-04	1.67E-04	1.99E-04	2.18E-04	2.34E-04
GB_Wall	3.83E-05	7.66E-03	3.06E-02	6.41E-02	5.54E-02	3.89E-02	3.47E-02	3.34E-02	2.88E-02	2.62E-02	2.43E-02	1.97E-02
Ht_Wall	0.0	0.0	3.14E-08	4.97E-05	7.95E-04	1.22E-03	1.51E-03	1.45E-03	1.45E-03	1.46E-03	1.53E-03	1.5E-03
Uterus	5.62E-08	2.25E-05	1.59E-03	1.40E-02	2.74E-02	2.22E-02	1.92E-02	1.67E-02	1.57E-02	1.46E-02	1.35E-02	1.05E-02

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = LLI_Cont	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000	
		Energy (MeV)												
Adrenals	0.0	0.0	4.03E-08	4.84E-05	5.99E-04	1.01E-03	1.26E-03	1.34E-03	1.36E-03	1.35E-03	1.34E-03	1.29E-03	1.29E-03	
UB_Wall	1.91E-06	2.12E-04	5.98E-03	2.59E-02	3.53E-02	2.65E-02	2.34E-02	2.01E-02	1.81E-02	1.70E-02	1.59E-02	1.19E-02	1.19E-03	
Bone_Sur	5.35E-06	1.37E-03	7.68E-03	1.90E-02	2.06E-02	1.09E-02	6.08E-03	4.23E-03	3.96E-03	3.58E-03	3.30E-03	2.93E-03	2.93E-03	
Brain	0.0	0.0	0.0	0.0	0.0	2.17E-08	3.63E-07	1.44E-06	5.51E-06	1.39E-05	2.22E-05	3.03E-05	5.13E-05	
Breasts	0.0	0.0	0.0	6.32E-07	3.46E-05	8.20E-05	1.56E-04	2.74E-04	3.51E-04	3.84E-04	4.03E-04	4.38E-04	4.38E-04	
St_Wall	0.0	2.32E-05	7.87E-04	3.51E-03	7.26E-03	6.18E-03	6.07E-03	5.87E-03	5.68E-03	5.23E-03	4.95E-03	4.80E-03	4.80E-03	
SI_Wall	1.68E-03	2.22E-02	5.55E-02	7.32E-02	5.35E-02	3.58E-02	3.35E-02	2.98E-02	2.75E-02	2.51E-02	2.32E-02	1.91E-02	1.91E-02	
ULI_Wall	6.68E-03	1.92E-02	2.80E-02	2.88E-02	2.09E-02	1.59E-02	1.36E-02	1.37E-02	1.29E-02	1.20E-02	1.13E-02	9.41E-03	9.41E-03	
LLI_Wall	5.04E-01	1.06E+00	1.14E+00	6.87E-01	3.02E-01	1.81E-01	1.77E-01	1.81E-01	1.63E-01	1.49E-01	1.38E-01	1.12E-01	1.12E-01	
Kidneys	0.0	7.17E-09	1.28E-05	7.58E-04	2.19E-03	3.46E-03	3.62E-03	3.70E-03	3.28E-03	2.97E-03	2.84E-03	2.98E-03	2.98E-03	
Liver	0.0	0.0	2.13E-08	2.85E-05	3.16E-04	8.60E-04	9.53E-04	1.10E-03	1.32E-03	1.23E-03	1.15E-03	1.18E-03	1.18E-03	
ET1-bas	0.0	0.0	0.0	6.65E-10	5.97E-07	7.20E-07	7.20E-06	2.05E-05	4.88E-05	7.95E-05	9.98E-05	1.17E-04	1.36E-04	
ET2-bas	0.0	0.0	0.0	6.65E-10	5.97E-07	7.20E-07	7.20E-06	2.05E-05	4.88E-05	7.95E-05	9.98E-05	1.17E-04	1.36E-04	
LN-ET	0.0	0.0	0.0	6.65E-10	5.97E-07	7.20E-07	7.20E-06	2.05E-05	4.88E-05	7.95E-05	9.98E-05	1.17E-04	1.36E-04	
BBi-bas	0.0	0.0	8.52E-10	4.17E-06	7.17E-05	1.80E-04	2.89E-04	4.04E-04	4.64E-04	4.87E-04	5.00E-04	5.27E-04	5.27E-04	
BBi-sec	0.0	0.0	8.52E-10	4.17E-06	7.17E-05	1.80E-04	2.89E-04	4.04E-04	4.64E-04	4.87E-04	5.00E-04	5.27E-04	5.27E-04	
bbe-sec	0.0	0.0	8.52E-10	4.17E-06	7.17E-05	1.80E-04	2.89E-04	4.04E-04	4.64E-04	4.87E-04	5.00E-04	5.27E-04	5.27E-04	
AI	0.0	0.0	8.52E-10	4.17E-06	7.17E-05	1.80E-04	2.89E-04	4.04E-04	4.64E-04	4.87E-04	5.00E-04	5.27E-04	5.27E-04	
LN-Th	0.0	0.0	8.52E-10	4.17E-06	7.17E-05	1.80E-04	2.89E-04	4.04E-04	4.64E-04	4.87E-04	5.00E-04	5.27E-04	5.27E-04	
Lng_Tiss	0.0	0.0	8.52E-10	4.17E-06	7.17E-05	1.80E-04	2.89E-04	4.04E-04	4.64E-04	4.87E-04	5.00E-04	5.27E-04	5.27E-04	
Lung_NP	0.0	0.0	0.0	6.65E-10	5.97E-07	7.20E-07	7.20E-06	2.05E-05	4.88E-05	7.95E-05	9.98E-05	1.17E-04	1.36E-04	
Lung_TB	0.0	0.0	8.52E-10	4.17E-06	7.17E-05	1.80E-04	2.89E-04	4.04E-04	4.64E-04	4.87E-04	5.00E-04	5.27E-04	5.27E-04	
Lung_P	0.0	0.0	8.52E-10	4.17E-06	7.17E-05	1.80E-04	2.89E-04	4.04E-04	4.64E-04	4.87E-04	5.00E-04	5.27E-04	5.27E-04	
Muscle	4.82E-05	1.20E-03	3.79E-03	7.50E-03	7.93E-03	6.32E-03	5.84E-03	5.63E-03	5.30E-03	5.02E-03	4.74E-03	3.88E-03	3.88E-03	
Ovaries	6.45E-04	5.02E-02	1.25E-01	1.69E-01	1.06E-01	6.49E-02	5.72E-02	5.70E-02	5.30E-02	4.75E-02	4.36E-02	3.66E-02	3.66E-02	
Pancreas	0.0	0.0	1.02E-06	2.43E-04	1.80E-03	2.79E-03	2.29E-03	2.29E-03	2.46E-03	2.44E-03	2.37E-03	2.19E-03	2.19E-03	
R_Marrow	2.05E-05	9.50E-04	4.90E-03	1.12E-02	1.25E-02	1.04E-02	1.01E-02	9.99E-03	9.00E-03	8.10E-03	7.49E-03	6.42E-03	6.42E-03	
Skin	9.03E-05	2.27E-04	4.36E-04	9.72E-04	1.72E-03	1.77E-03	1.76E-03	1.95E-03	2.02E-03	1.99E-03	1.92E-03	1.69E-03	1.69E-03	
Spleen	0.0	2.62E-09	7.58E-06	5.97E-04	2.40E-03	3.47E-03	2.95E-03	2.91E-03	2.78E-03	2.78E-03	2.77E-03	2.55E-03	2.55E-03	
Testes	0.0	6.73E-07	2.25E-04	3.48E-03	7.92E-03	7.04E-03	6.99E-03	7.46E-03	6.35E-03	5.70E-03	5.37E-03	4.96E-03	4.96E-03	
Thymus	0.0	0.0	0.0	1.48E-07	1.55E-05	7.60E-05	1.38E-04	2.30E-04	2.92E-04	3.26E-04	3.51E-04	3.49E-04	3.49E-04	
Thyroid	0.0	0.0	0.0	6.65E-10	5.97E-07	7.20E-06	2.05E-05	4.88E-05	7.95E-05	9.98E-05	1.17E-04	1.36E-04	1.36E-04	
GB_Wall	0.0	0.0	1.68E-06	3.76E-04	1.91E-03	3.36E-03	3.01E-03	2.89E-03	2.81E-03	2.85E-03	2.86E-03	2.65E-03	2.65E-03	
Ht_Wall	0.0	0.0	7.24E-10	5.30E-06	1.44E-04	2.29E-04	3.34E-04	4.83E-04	5.91E-04	6.47E-04	6.83E-04	7.63E-04	7.63E-04	
Uterus	0.0	9.57E-06	1.74E-03	1.93E-02	3.60E-02	2.74E-02	2.36E-02	2.21E-02	1.93E-02	1.69E-02	1.54E-02	1.35E-02	1.35E-02	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = LLI_Wall	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	3.09E-08	3.63E-05	4.04E-04	8.37E-04	1.19E-03	1.33E-03	1.32E-03	1.28E-03	1.24E-03	1.11E-03
UB_Wall	1.16E-07	7.82E-04	9.43E-03	3.90E-02	4.33E-02	3.14E-02	2.73E-02	2.39E-02	2.23E-02	2.15E-02	2.06E-02	1.68E-03
Bone_Sur	5.35E-06	1.37E-03	7.68E-03	1.90E-02	2.06E-02	1.09E-02	6.08E-03	4.23E-03	3.96E-03	3.58E-03	3.30E-03	2.93E-03
Brain	0.0	0.0	0.0	0.0	1.66E-08	2.86E-07	1.17E-06	4.61E-06	1.19E-05	1.77E-05	2.34E-05	4.60E-05
Breasts	0.0	0.0	0.0	0.0	4.76E-07	2.63E-05	8.69E-05	1.71E-04	2.72E-04	3.27E-04	3.49E-04	3.61E-04
St_Wall	4.59E-08	1.26E-05	6.81E-04	2.83E-03	5.67E-03	4.94E-03	4.62E-03	4.20E-03	4.34E-03	4.05E-03	3.78E-03	3.42E-03
SI_Wall	2.61E-02	5.61E-02	7.18E-02	6.60E-02	4.38E-02	2.99E-02	2.74E-02	2.63E-02	2.44E-02	2.22E-02	2.04E-02	1.68E-02
ULI_Wall	1.82E-03	9.01E-03	1.63E-02	1.83E-02	1.53E-02	1.23E-02	1.11E-02	1.03E-02	1.02E-02	9.10E-03	8.27E-03	7.08E-03
LLI_Wall	5.09E+00	3.36E+00	2.16E+00	9.91E-01	3.92E-01	2.33E-01	2.36E-01	2.57E-01	2.41E-01	2.16E-01	1.97E-01	1.54E-01
Kidneys	0.0	1.18E-08	1.17E-05	6.20E-04	1.77E-03	2.67E-03	2.78E-03	2.73E-03	2.71E-03	2.77E-03	2.80E-03	2.76E-03
Liver	0.0	0.0	1.62E-08	2.20E-05	2.94E-04	6.66E-04	7.87E-04	8.80E-04	1.05E-03	1.06E-03	1.03E-03	9.98E-04
ET1-bas	0.0	0.0	5.01E-10	4.60E-07	5.71E-07	5.71E-06	1.66E-05	4.08E-05	6.81E-05	8.67E-05	1.03E-04	1.21E-04
ET2-bas	0.0	0.0	5.01E-10	4.60E-07	5.71E-06	1.66E-05	4.08E-05	6.81E-05	8.67E-05	1.03E-04	1.21E-04	1.21E-04
LN-ET	0.0	0.0	5.01E-10	4.60E-07	5.71E-06	1.66E-05	4.08E-05	6.81E-05	8.67E-05	1.03E-04	1.21E-04	1.21E-04
BBi-bas	0.0	0.0	7.92E-10	3.46E-06	6.86E-05	1.45E-04	2.00E-04	3.10E-04	3.77E-04	4.32E-04	4.66E-04	4.69E-04
BBi-sec	0.0	0.0	7.92E-10	3.46E-06	6.86E-05	1.45E-04	2.00E-04	3.10E-04	3.77E-04	4.32E-04	4.66E-04	4.69E-04
bbe-sec	0.0	0.0	7.92E-10	3.46E-06	6.86E-05	1.45E-04	2.00E-04	3.10E-04	3.77E-04	4.32E-04	4.66E-04	4.69E-04
AI	0.0	0.0	7.92E-10	3.46E-06	6.86E-05	1.45E-04	2.00E-04	3.10E-04	3.77E-04	4.32E-04	4.66E-04	4.69E-04
LN-Th	0.0	0.0	7.92E-10	3.46E-06	6.86E-05	1.45E-04	2.00E-04	3.10E-04	3.77E-04	4.32E-04	4.66E-04	4.69E-04
Lng_Tiss	0.0	0.0	7.92E-10	3.46E-06	6.86E-05	1.45E-04	2.00E-04	3.10E-04	3.77E-04	4.32E-04	4.66E-04	4.69E-04
Lung_NP	0.0	0.0	5.01E-10	4.60E-07	5.71E-06	1.66E-05	4.08E-05	6.81E-05	8.67E-05	1.03E-04	1.21E-04	1.21E-04
Lung_TB	0.0	0.0	7.92E-10	3.46E-06	6.86E-05	1.45E-04	2.00E-04	3.10E-04	3.77E-04	4.32E-04	4.66E-04	4.69E-04
Lung_P	0.0	0.0	7.92E-10	3.46E-06	6.86E-05	1.45E-04	2.00E-04	3.10E-04	3.77E-04	4.32E-04	4.66E-04	4.69E-04
Muscle	1.56E-03	3.98E-03	6.40E-03	9.10E-03	8.68E-03	6.77E-03	6.28E-03	6.10E-03	5.73E-03	5.37E-03	5.06E-03	4.20E-03
Ovaries	1.47E-02	9.01E-02	1.63E-01	1.57E-01	8.97E-02	5.64E-02	5.15E-02	5.16E-02	4.62E-02	4.24E-02	3.95E-02	3.22E-02
Pancreas	0.0	0.0	7.49E-07	3.45E-04	1.36E-03	1.98E-03	2.17E-03	2.11E-03	2.02E-03	1.97E-03	1.93E-03	1.84E-03
R_Marrow	2.05E-05	9.50E-04	4.90E-03	1.12E-02	1.25E-02	1.04E-02	1.01E-02	9.99E-03	9.00E-03	8.10E-03	7.49E-03	6.42E-03
Skin	6.14E-05	2.67E-04	5.67E-04	1.27E-03	2.00E-03	1.90E-03	1.91E-03	2.04E-03	2.10E-03	2.00E-03	1.91E-03	1.79E-03
Spleen	0.0	2.58E-09	5.86E-06	5.88E-04	1.77E-03	2.36E-03	2.18E-03	2.21E-03	2.20E-03	2.18E-03	2.12E-03	2.12E-03
Testes	0.0	1.86E-06	5.76E-04	5.78E-03	1.25E-02	1.03E-02	9.44E-03	9.22E-03	9.28E-03	8.39E-03	7.62E-03	6.23E-03
Thymus	0.0	0.0	0.0	1.14E-07	1.20E-05	6.04E-05	1.13E-04	1.13E-04	2.50E-04	2.84E-04	3.01E-04	3.08E-04
Thyroid	0.0	0.0	0.0	5.01E-10	4.60E-07	5.71E-06	1.66E-05	4.08E-05	6.81E-05	8.67E-05	1.03E-04	1.21E-04
GB_Wall	0.0	0.0	1.52E-06	1.92E-04	1.79E-03	3.17E-03	2.42E-03	2.87E-03	2.71E-03	2.57E-03	2.49E-03	2.29E-03
Ht_Wall	0.0	0.0	5.65E-10	4.09E-06	1.20E-04	2.05E-04	3.08E-04	4.42E-04	5.74E-04	6.04E-04	6.66E-04	6.66E-04
Uterus	0.0	1.46E-05	1.75E-03	1.77E-02	3.30E-02	2.57E-02	2.28E-02	2.19E-02	1.76E-02	1.56E-02	1.44E-02	1.29E-02

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Kidneys	Energy (MeV)						
	0.010	0.015	0.020	0.030	0.050	0.100	0.200
Target							
Adrenals	7.57E-04	1.16E-02	3.74E-02	6.43E-02	5.15E-02	3.68E-02	3.41E-02
UB_Wall	0.0	0.0	5.67E-09	2.41E-05	5.36E-04	8.21E-04	1.11E-03
Bone_Sur	2.82E-05	4.23E-04	2.89E-03	1.15E-02	1.68E-02	9.67E-03	5.56E-03
Brain	0.0	0.0	0.0	8.61E-10	6.97E-07	5.12E-06	1.16E-05
Breasts	0.0	0.0	5.39E-09	2.22E-05	5.13E-04	9.23E-04	1.10E-03
St_Wall	0.0	1.80E-06	4.17E-04	7.56E-03	1.51E-02	1.31E-02	1.18E-02
SI_Wall	4.53E-08	1.27E-05	6.97E-04	5.86E-03	1.18E-02	1.14E-02	1.03E-02
ULI_Wall	0.0	1.25E-06	3.69E-04	5.19E-03	1.19E-02	1.07E-02	1.04E-02
LLI_Wall	0.0	1.18E-08	1.17E-05	6.20E-04	1.77E-03	2.67E-03	2.78E-03
Kidneys	3.01E+00	2.55E+00	1.89E+00	9.67E-01	3.87E-01	2.26E-01	2.30E-01
Liver	5.11E-05	6.52E-04	3.97E-03	1.44E-02	1.85E-02	1.53E-02	1.36E-02
ET1-bas	0.0	0.0	0.0	1.02E-07	1.58E-05	9.12E-05	2.32E-05
ET2-bas	0.0	0.0	0.0	1.02E-07	1.58E-05	9.12E-05	2.32E-04
LN-ET	0.0	0.0	0.0	1.02E-07	1.58E-05	9.12E-05	2.32E-04
BBi-bas	0.0	1.46E-07	4.75E-05	1.20E-03	3.22E-03	3.42E-03	3.23E-03
BBi-sec	0.0	1.46E-07	4.75E-05	1.20E-03	3.22E-03	3.42E-03	3.23E-03
bbe-sec	0.0	1.46E-07	4.75E-05	1.20E-03	3.22E-03	3.42E-03	3.23E-03
AI	0.0	1.46E-07	4.75E-05	1.20E-03	3.22E-03	3.42E-03	3.23E-03
LN-Th	0.0	1.46E-07	4.75E-05	1.20E-03	3.22E-03	3.42E-03	3.23E-03
Lng_Tiss	0.0	1.46E-07	4.75E-05	1.20E-03	3.22E-03	3.42E-03	3.23E-03
Lung_NP	0.0	0.0	0.0	1.02E-07	1.58E-05	9.12E-05	2.32E-03
Lung_TB	0.0	1.46E-07	4.75E-05	1.20E-03	3.22E-03	3.42E-03	3.23E-03
Lung_P	0.0	1.46E-07	4.75E-05	1.20E-03	3.22E-03	3.42E-03	3.23E-03
Muscle	1.29E-03	3.91E-03	6.70E-03	8.23E-03	6.45E-03	4.91E-03	4.73E-03
Ovaries	0.0	0.0	1.78E-06	5.77E-04	2.03E-03	3.53E-03	3.48E-03
Pancreas	0.0	3.36E-05	2.46E-03	2.24E-02	3.41E-02	2.64E-02	2.33E-02
R_Marrow	1.54E-05	2.10E-04	1.34E-03	5.10E-03	8.48E-03	8.53E-03	8.55E-03
Skin	1.48E-05	1.82E-04	1.08E-03	2.43E-03	2.15E-03	1.84E-03	1.98E-03
Spleen	1.26E-04	7.00E-03	3.38E-02	6.35E-02	5.08E-02	3.36E-02	3.06E-02
Testes	0.0	0.0	3.77E-07	3.53E-05	1.13E-04	2.18E-04	3.66E-04
Thymus	0.0	0.0	1.52E-09	1.40E-05	3.93E-04	7.69E-04	1.02E-03
Thyroid	0.0	0.0	0.0	1.02E-07	1.58E-05	9.12E-05	2.32E-04
GB_Wall	0.0	4.42E-06	9.88E-04	1.30E-02	2.53E-02	2.16E-02	1.82E-02
Ht_Wall	0.0	2.09E-10	2.93E-06	6.62E-04	2.72E-03	4.32E-03	3.76E-03
Uterus	0.0	0.0	4.98E-07	2.12E-04	1.70E-03	3.17E-03	3.15E-03

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Liver	Energy (MeV)												
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	9.80E-05	3.32E-03	1.37E-02	2.96E-02	2.93E-02	2.25E-02	2.06E-02	1.89E-02	1.79E-02	1.66E-02	1.54E-02	1.26E-02	
UB_Wall	0.0	0.0	3.63E-09	1.23E-05	2.36E-04	5.01E-04	6.95E-04	9.01E-04	1.03E-04	1.06E-03	1.06E-03	9.95E-04	
Bone_Sur	7.32E-05	7.28E-04	2.75E-03	8.88E-03	1.24E-02	7.42E-03	4.26E-03	3.01E-03	2.75E-03	2.57E-03	2.45E-03	2.26E-03	
Brain	0.0	0.0	0.0	6.41E-09	2.19E-06	3.10E-05	5.53E-05	1.06E-04	1.56E-04	1.83E-04	1.98E-04	2.24E-04	
Breasts	0.0	2.87E-08	1.73E-05	1.27E-03	3.59E-03	3.40E-03	3.41E-03	3.67E-03	3.67E-03	3.45E-03	3.35E-03	2.93E-03	
St_Wall	8.94E-08	1.52E-05	5.83E-04	4.47E-03	7.90E-03	7.74E-03	6.89E-03	7.03E-03	6.32E-03	5.82E-03	5.55E-03	5.20E-03	
SI_Wall	6.30E-05	2.53E-04	7.37E-04	2.72E-03	5.91E-03	6.03E-03	5.53E-03	5.32E-03	5.02E-03	4.89E-03	4.73E-03	3.98E-03	
ULI_Wall	4.08E-05	3.76E-04	1.82E-03	6.98E-03	1.15E-02	9.86E-03	8.63E-03	8.25E-03	8.26E-03	7.87E-03	7.33E-03	5.51E-03	
LLI_Wall	0.0	0.0	1.62E-08	2.20E-05	2.94E-04	6.66E-04	7.87E-04	8.80E-04	1.05E-03	1.06E-03	1.03E-03	9.98E-04	
Kidneys	5.11E-05	6.52E-04	3.97E-03	1.44E-02	1.85E-02	1.53E-02	1.36E-02	1.30E-02	1.18E-02	1.12E-02	1.05E-02	8.11E-03	
Liver	5.37E-01	4.99E-01	4.33E-01	2.94E-01	1.57E-01	9.55E-02	9.10E-02	9.07E-02	8.39E-02	7.66E-02	7.07E-02	5.74E-02	
ET1-bas	0.0	0.0	0.0	1.13E-06	2.03E-04	3.67E-04	5.16E-04	6.15E-04	6.41E-04	6.54E-04	6.67E-04	7.29E-04	
ET2-bas	0.0	0.0	0.0	1.13E-06	2.03E-04	3.67E-04	5.16E-04	6.15E-04	6.41E-04	6.54E-04	6.67E-04	7.29E-04	
LN-ET	0.0	0.0	0.0	1.13E-06	2.03E-04	3.67E-04	5.16E-04	6.15E-04	6.41E-04	6.54E-04	6.67E-04	7.29E-04	
BBi-bas	1.32E-04	3.31E-03	1.07E-02	1.78E-02	1.51E-02	1.06E-02	9.34E-03	8.67E-03	8.14E-03	7.63E-03	7.13E-03	5.71E-03	
BBi-sec	1.32E-04	3.31E-03	1.07E-02	1.78E-02	1.51E-02	1.06E-02	9.34E-03	8.67E-03	8.14E-03	7.63E-03	7.13E-03	5.71E-03	
bbe-sec	1.32E-04	3.31E-03	1.07E-02	1.78E-02	1.51E-02	1.06E-02	9.34E-03	8.67E-03	8.14E-03	7.63E-03	7.13E-03	5.71E-03	
AI	1.32E-04	3.31E-03	1.07E-02	1.78E-02	1.51E-02	1.06E-02	9.34E-03	8.67E-03	8.14E-03	7.63E-03	7.13E-03	5.71E-03	
LN-Th	1.32E-04	3.31E-03	1.07E-02	1.78E-02	1.51E-02	1.06E-02	9.34E-03	8.67E-03	8.14E-03	7.63E-03	7.13E-03	5.71E-03	
Lng_Tiss	1.32E-04	3.31E-03	1.07E-02	1.78E-02	1.51E-02	1.06E-02	9.34E-03	8.67E-03	8.14E-03	7.63E-03	7.13E-03	5.71E-03	
Lung_NP	0.0	0.0	0.0	1.13E-06	2.03E-04	3.67E-04	5.16E-04	6.15E-04	6.41E-04	6.54E-04	6.67E-04	7.29E-04	
Lung_TB	1.32E-04	3.31E-03	1.07E-02	1.78E-02	1.51E-02	1.06E-02	9.34E-03	8.67E-03	8.14E-03	7.63E-03	7.13E-03	5.71E-03	
Lung_P	1.32E-04	3.31E-03	1.07E-02	1.78E-02	1.51E-02	1.06E-02	9.34E-03	8.67E-03	8.14E-03	7.63E-03	7.13E-03	5.71E-03	
Muscle	5.74E-04	1.69E-03	3.10E-03	4.91E-03	4.80E-03	3.81E-03	3.60E-03	3.59E-03	3.42E-03	3.25E-03	3.09E-03	2.64E-03	
Ovaries	0.0	0.0	5.72E-07	1.24E-04	1.08E-03	1.86E-03	1.92E-03	2.01E-03	2.11E-03	2.15E-03	2.11E-03	1.81E-03	
Pancreas	2.00E-05	4.92E-04	4.78E-03	2.02E-02	2.55E-02	1.99E-02	1.77E-02	1.60E-02	1.43E-02	1.35E-02	1.27E-02	1.02E-02	
R_Marrow	2.91E-05	2.37E-04	7.89E-04	2.30E-03	3.72E-03	4.10E-03	4.16E-03	4.42E-03	4.06E-03	3.81E-03	3.62E-03	3.09E-03	
Skin	1.33E-06	4.11E-05	4.69E-04	1.68E-03	2.01E-03	1.79E-03	1.79E-03	2.04E-03	2.23E-03	2.12E-03	1.99E-03	1.75E-03	
Spleen	0.0	1.01E-09	4.72E-06	5.42E-04	2.67E-03	3.63E-03	3.58E-03	3.52E-03	3.41E-03	3.31E-03	3.20E-03	2.79E-03	
Testes	0.0	0.0	0.0	2.44E-07	2.32E-05	5.66E-05	1.10E-04	2.03E-04	2.81E-04	3.30E-04	3.67E-04	4.69E-04	
Thymus	0.0	1.57E-10	1.92E-06	5.89E-04	2.45E-03	3.02E-03	2.92E-03	2.94E-03	2.98E-03	2.97E-03	2.91E-03	2.57E-03	
Thyroid	0.0	0.0	0.0	1.13E-06	2.03E-04	3.67E-04	5.16E-04	6.15E-04	6.41E-04	6.54E-04	6.67E-04	7.29E-04	
GB_Wall	1.74E-03	1.84E-02	4.84E-02	7.98E-02	6.73E-02	4.51E-02	3.99E-02	3.74E-02	3.43E-02	3.06E-02	2.79E-02	2.34E-02	
Ht_Wall	5.31E-05	6.02E-04	3.37E-03	1.13E-02	1.46E-02	1.21E-02	1.10E-02	1.03E-02	9.73E-03	8.96E-03	8.31E-03	6.84E-03	
Uterus	0.0	0.0	8.36E-08	5.83E-05	8.61E-04	1.62E-03	1.73E-03	1.65E-03	1.82E-03	1.91E-03	1.93E-03	1.77E-03	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = ET1-sur	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	0.0	1.32E-06	7.93E-05	3.84E-04	4.40E-04	5.60E-04	6.93E-04	7.30E-04	7.57E-04	7.01E-04
UB_Wall	0.0	0.0	0.0	0.0	1.09E-07	2.30E-06	8.49E-06	2.54E-05	4.75E-05	6.36E-05	7.81E-05	9.72E-05
Bone_Sur	9.91E-06	2.72E-04	2.85E-03	1.46E-02	2.16E-02	1.19E-02	6.64E-03	4.77E-03	4.48E-03	4.21E-03	3.95E-03	3.26E-03
Brain	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03
Breasts	0.0	0.0	4.83E-08	8.72E-05	6.19E-04	1.51E-03	1.53E-03	1.78E-03	2.01E-03	2.11E-03	2.15E-03	2.06E-03
St_Wall	0.0	0.0	0.0	6.65E-07	4.41E-05	1.18E-04	2.77E-04	3.99E-04	4.83E-04	5.39E-04	5.64E-04	5.36E-04
SI_Wall	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-04	1.41E-04	2.13E-04
ULI_Wall	0.0	0.0	0.0	6.60E-09	2.92E-06	2.49E-05	5.81E-05	1.20E-04	1.67E-04	1.99E-04	2.18E-04	2.34E-04
LLI_Wall	0.0	0.0	0.0	5.01E-10	4.60E-07	5.71E-06	1.66E-05	4.08E-05	6.81E-05	8.67E-05	1.03E-04	1.21E-04
Kidneys	0.0	0.0	0.0	1.02E-07	1.58E-05	9.12E-05	2.32E-04	3.73E-04	4.15E-04	4.20E-04	4.17E-04	3.99E-04
Liver	0.0	0.0	0.0	1.13E-06	2.03E-04	3.67E-04	5.16E-04	6.15E-04	6.41E-04	6.54E-04	6.67E-04	7.29E-04
ET1-bas	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00
ET2-bas	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00
LN-ET	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00
BBi-bas	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
BBi-sec	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
bbe-sec	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
AI	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
LN-Th	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
Lng_Tiss	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Muscle	3.00E-03	7.86E-03	1.16E-02	1.24E-02	8.60E-03	5.84E-03	5.55E-03	5.48E-03	5.12E-03	4.78E-03	4.49E-03	3.71E-03
Ovaries	0.0	0.0	0.0	2.32E-10	4.18E-07	6.28E-06	1.94E-05	4.87E-05	8.13E-05	1.03E-04	1.21E-04	1.41E-04
Pancreas	0.0	0.0	0.0	8.12E-07	5.87E-05	2.94E-04	4.69E-04	5.62E-04	6.51E-04	6.74E-04	6.71E-04	6.28E-04
R_Marrow	1.19E-06	3.25E-05	3.40E-04	1.96E-03	3.86E-03	3.98E-03	3.86E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	2.69E-03
Skin	0.0	2.45E-05	5.08E-04	2.22E-03	2.45E-03	2.11E-03	2.27E-03	2.39E-03	2.49E-03	2.42E-03	2.28E-03	1.79E-03
Spleen	0.0	0.0	0.0	4.52E-07	2.51E-04	3.51E-04	4.53E-04	5.52E-04	5.77E-04	5.74E-04	5.65E-04	5.32E-04
Testes	0.0	0.0	0.0	0.0	1.12E-08	4.37E-07	2.19E-06	8.91E-06	2.04E-05	3.00E-05	3.95E-05	5.54E-05
Thymus	0.0	6.40E-09	3.18E-05	3.18E-03	6.91E-03	8.52E-03	7.47E-03	7.01E-03	7.69E-03	7.54E-03	7.05E-03	5.26E-03
Thyroid	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03
GB_Wall	0.0	0.0	0.0	1.47E-07	1.94E-05	9.88E-05	1.84E-05	2.95E-04	4.05E-04	4.33E-04	4.24E-04	
Ht_Wall	0.0	0.0	1.20E-07	1.03E-04	1.00E-03	2.21E-03	2.10E-03	2.32E-03	2.29E-03	2.03E-03	2.03E-03	
Uterus	0.0	0.0	1.83E-10	3.63E-07	5.66E-06	1.78E-05	4.56E-05	7.71E-05	9.80E-05	1.16E-04	1.36E-04	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = ET2-sur	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000	
		Energy (MeV)												
Adrenals	0.0	0.0	0.0	0.0	1.32E-06	7.93E-05	3.84E-04	4.40E-04	5.60E-04	6.93E-04	7.30E-04	7.57E-04	7.01E-04	
UB_Wall	0.0	0.0	0.0	0.0	0.0	1.09E-07	2.30E-06	8.49E-06	2.54E-05	4.75E-05	6.36E-05	7.81E-05	9.72E-05	
Bone_Sur	9.91E-06	2.72E-04	2.85E-03	1.46E-02	2.16E-02	1.19E-02	6.64E-03	4.77E-03	4.48E-03	4.21E-03	3.95E-03	3.26E-03		
Brain	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03		
Breasts	0.0	0.0	4.83E-08	8.72E-05	6.19E-04	1.51E-03	1.53E-03	1.78E-03	2.01E-03	2.11E-03	2.15E-03	2.06E-03		
St_Wall	0.0	0.0	0.0	0.0	6.65E-07	4.41E-05	1.18E-04	2.77E-04	3.99E-04	4.83E-04	5.39E-04	5.64E-04	5.36E-04	
SI_Wall	0.0	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-04	1.41E-04	2.13E-04	
ULI_Wall	0.0	0.0	0.0	0.0	6.60E-09	2.92E-06	2.49E-05	5.81E-05	1.20E-04	1.67E-04	1.99E-04	2.18E-04	2.34E-04	
LLI_Wall	0.0	0.0	0.0	0.0	5.01E-10	4.60E-07	5.71E-06	1.66E-05	4.08E-05	6.81E-05	8.67E-05	1.03E-04	1.21E-04	
Kidneys	0.0	0.0	0.0	0.0	1.02E-07	1.58E-05	9.12E-05	2.32E-04	3.73E-04	4.15E-04	4.20E-04	4.17E-04	3.99E-04	
Liver	0.0	0.0	0.0	0.0	1.13E-06	2.03E-04	3.67E-04	5.16E-04	6.15E-04	6.41E-04	6.54E-04	6.67E-04	7.29E-04	
ET1-bas	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00	
ET2-bas	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00	
LN-ET	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00	
BBi-bas	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03	
BBi-sec	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03	
bbe-sec	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03	
AI	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03	
LN-Th	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03	
Lng_Tiss	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03	
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Muscle	3.00E-03	7.86E-03	1.16E-02	1.24E-02	8.60E-03	5.84E-03	5.55E-03	5.48E-03	5.12E-03	4.78E-03	4.49E-03	3.71E-03		
Ovaries	0.0	0.0	0.0	0.0	2.32E-10	4.18E-07	6.28E-06	1.94E-05	4.87E-05	8.13E-05	1.03E-04	1.21E-04	1.41E-04	
Pancreas	0.0	0.0	0.0	0.0	8.12E-07	5.87E-05	2.94E-04	4.69E-04	5.62E-04	6.51E-04	6.74E-04	6.71E-04	6.28E-04	
R_Marrow	1.19E-06	3.25E-05	3.40E-04	1.96E-03	3.86E-03	3.98E-03	3.86E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	2.69E-03		
Skin	0.0	2.45E-05	5.08E-04	2.22E-03	2.45E-03	2.11E-03	2.27E-03	2.39E-03	2.49E-03	2.42E-03	2.28E-03	2.17E-03	1.79E-03	
Spleen	0.0	0.0	0.0	4.52E-07	2.51E-04	3.51E-04	4.53E-04	5.52E-04	5.77E-04	5.74E-04	5.65E-04	5.32E-04		
Testes	0.0	0.0	0.0	0.0	1.12E-08	4.37E-07	2.19E-06	8.91E-06	2.04E-05	3.00E-05	3.95E-05	5.54E-05		
Thymus	0.0	6.40E-09	3.18E-05	3.18E-03	6.91E-03	8.52E-03	7.47E-03	7.01E-03	7.69E-03	7.54E-03	7.05E-03	5.26E-03		
Thyroid	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03		
GB_Wall	0.0	0.0	0.0	1.47E-07	1.94E-05	9.88E-05	1.84E-05	2.95E-04	4.05E-04	4.33E-04	4.24E-04			
Ht_Wall	0.0	0.0	1.20E-07	1.03E-04	1.00E-03	2.21E-03	2.27E-03	2.32E-03	2.33E-03	2.29E-03	2.03E-03			
Uterus	0.0	0.0	1.83E-10	3.63E-07	5.66E-06	1.78E-05	4.56E-05	7.71E-05	9.80E-05	1.16E-04	1.36E-04			

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = ET2-lnd	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	0.0	1.32E-06	7.93E-05	3.84E-04	4.40E-04	5.60E-04	6.93E-04	7.30E-04	7.57E-04	7.01E-04
UB_Wall	0.0	0.0	0.0	0.0	1.09E-07	2.30E-06	8.49E-06	2.54E-05	4.75E-05	6.36E-05	7.81E-05	9.72E-05
Bone_Sur	9.91E-06	2.72E-04	2.85E-03	1.46E-02	2.16E-02	1.19E-02	6.64E-03	4.77E-03	4.48E-03	4.21E-03	3.95E-03	3.26E-03
Brain	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03
Breasts	0.0	0.0	4.83E-08	8.72E-05	6.19E-04	1.51E-03	1.53E-03	1.78E-03	2.01E-03	2.11E-03	2.15E-03	2.06E-03
St_Wall	0.0	0.0	0.0	6.65E-07	4.41E-05	1.18E-04	2.77E-04	3.99E-04	4.83E-04	5.39E-04	5.64E-04	5.36E-04
SI_Wall	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-04	1.41E-04	2.13E-04
ULI_Wall	0.0	0.0	0.0	6.60E-09	2.92E-06	2.49E-05	5.81E-05	1.20E-04	1.67E-04	1.99E-04	2.18E-04	2.34E-04
LLI_Wall	0.0	0.0	0.0	5.01E-10	4.60E-07	5.71E-06	1.66E-05	4.08E-05	6.81E-05	8.67E-05	1.03E-04	1.21E-04
Kidneys	0.0	0.0	0.0	1.02E-07	1.58E-05	9.12E-05	2.32E-04	3.73E-04	4.15E-04	4.20E-04	4.17E-04	3.99E-04
Liver	0.0	0.0	0.0	1.13E-06	2.03E-04	3.67E-04	5.16E-04	6.15E-04	6.41E-04	6.54E-04	6.67E-04	7.29E-04
ET1-bas	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00
ET2-bas	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00
LN-ET	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00
BBi-bas	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
BBi-sec	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
bbe-sec	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
AI	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
LN-Th	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
Lng_Tiss	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Muscle	3.00E-03	7.86E-03	1.16E-02	1.24E-02	8.60E-03	5.84E-03	5.55E-03	5.48E-03	5.12E-03	4.78E-03	4.49E-03	3.71E-03
Ovaries	0.0	0.0	0.0	2.32E-10	4.18E-07	6.28E-06	1.94E-05	4.87E-05	8.13E-05	1.03E-04	1.21E-04	1.41E-04
Pancreas	0.0	0.0	0.0	8.12E-07	5.87E-05	2.94E-04	4.69E-04	5.62E-04	6.51E-04	6.74E-04	6.71E-04	6.28E-04
R_Marrow	1.19E-06	3.25E-05	3.40E-04	1.96E-03	3.86E-03	3.98E-03	3.86E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	2.69E-03
Skin	0.0	2.45E-05	5.08E-04	2.22E-03	2.45E-03	2.11E-03	2.27E-03	2.39E-03	2.49E-03	2.42E-03	2.28E-03	1.79E-03
Spleen	0.0	0.0	0.0	4.52E-07	2.51E-04	3.51E-04	4.53E-04	5.52E-04	5.77E-04	5.74E-04	5.65E-04	5.32E-04
Testes	0.0	0.0	0.0	0.0	1.12E-08	4.37E-07	2.19E-06	8.91E-06	2.04E-05	3.00E-05	3.95E-05	5.54E-05
Thymus	0.0	6.40E-09	3.18E-05	3.18E-03	6.91E-03	8.52E-03	7.47E-03	7.01E-03	7.69E-03	7.54E-03	7.05E-03	5.26E-03
Thyroid	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03
GB_Wall	0.0	0.0	0.0	1.47E-07	1.94E-05	9.88E-05	1.84E-05	2.95E-04	4.05E-04	4.33E-04	4.24E-04	
Ht_Wall	0.0	0.0	1.20E-07	1.03E-04	1.00E-03	2.21E-03	2.10E-03	2.32E-03	2.29E-03	2.03E-03	2.03E-03	
Uterus	0.0	0.0	1.83E-10	3.63E-07	5.66E-06	1.78E-05	4.56E-05	7.71E-05	9.80E-05	1.16E-04	1.36E-04	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = ET2-seq	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	0.0	1.32E-06	7.93E-05	3.84E-04	4.40E-04	5.60E-04	6.93E-04	7.30E-04	7.57E-04	7.01E-04
UB_Wall	0.0	0.0	0.0	0.0	1.09E-07	2.30E-06	8.49E-06	2.54E-05	4.75E-05	6.36E-05	7.81E-05	9.72E-05
Bone_Sur	9.91E-06	2.72E-04	2.85E-03	1.46E-02	2.16E-02	1.19E-02	6.64E-03	4.77E-03	4.48E-03	4.21E-03	3.95E-03	3.26E-03
Brain	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03
Breasts	0.0	0.0	4.83E-08	8.72E-05	6.19E-04	1.51E-03	1.53E-03	1.78E-03	2.01E-03	2.11E-03	2.15E-03	2.06E-03
St_Wall	0.0	0.0	0.0	6.65E-07	4.41E-05	1.18E-04	2.77E-04	3.99E-04	4.83E-04	5.39E-04	5.64E-04	5.36E-04
SI_Wall	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-04	1.41E-04	2.13E-04
ULI_Wall	0.0	0.0	0.0	6.60E-09	2.92E-06	2.49E-05	5.81E-05	1.20E-04	1.67E-04	1.99E-04	2.18E-04	2.34E-04
LLI_Wall	0.0	0.0	0.0	5.01E-10	4.60E-07	5.71E-06	1.66E-05	4.08E-05	6.81E-05	8.67E-05	1.03E-04	1.21E-04
Kidneys	0.0	0.0	0.0	1.02E-07	1.58E-05	9.12E-05	2.32E-04	3.73E-04	4.15E-04	4.20E-04	4.17E-04	3.99E-04
Liver	0.0	0.0	0.0	1.13E-06	2.03E-04	3.67E-04	5.16E-04	6.15E-04	6.41E-04	6.54E-04	6.67E-04	7.29E-04
ET1-bas	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00
ET2-bas	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00
LN-ET	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00
BBi-bas	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
BBi-sec	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
bbe-sec	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
AI	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
LN-Th	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
Lng_Tiss	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Muscle	3.00E-03	7.86E-03	1.16E-02	1.24E-02	8.60E-03	5.84E-03	5.55E-03	5.48E-03	5.12E-03	4.78E-03	4.49E-03	3.71E-03
Ovaries	0.0	0.0	0.0	2.32E-10	4.18E-07	6.28E-06	1.94E-05	4.87E-05	8.13E-05	1.03E-04	1.21E-04	1.41E-04
Pancreas	0.0	0.0	0.0	8.12E-07	5.87E-05	2.94E-04	4.69E-04	5.62E-04	6.51E-04	6.74E-04	6.71E-04	6.28E-04
R_Marrow	1.19E-06	3.25E-05	3.40E-04	1.96E-03	3.86E-03	3.98E-03	3.86E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	2.69E-03
Skin	0.0	2.45E-05	5.08E-04	2.22E-03	2.45E-03	2.11E-03	2.27E-03	2.39E-03	2.49E-03	2.42E-03	2.28E-03	1.79E-03
Spleen	0.0	0.0	0.0	4.52E-07	2.51E-04	3.51E-04	4.53E-04	5.52E-04	5.77E-04	5.74E-04	5.65E-04	5.32E-04
Testes	0.0	0.0	0.0	0.0	1.12E-08	4.37E-07	2.19E-06	8.91E-06	2.04E-05	3.00E-05	3.95E-05	5.54E-05
Thymus	0.0	6.40E-09	3.18E-05	3.18E-03	6.91E-03	8.52E-03	7.47E-03	7.01E-03	7.69E-03	7.54E-03	7.05E-03	5.26E-03
Thyroid	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03
GB_Wall	0.0	0.0	0.0	1.47E-07	1.94E-05	9.88E-05	1.84E-05	2.95E-04	4.05E-04	4.33E-04	4.24E-04	
Ht_Wall	0.0	0.0	1.20E-07	1.03E-04	1.00E-03	2.21E-03	2.10E-03	2.32E-03	2.29E-03	2.03E-03	2.03E-03	
Uterus	0.0	0.0	1.83E-10	3.63E-07	5.66E-06	1.78E-05	4.56E-05	7.71E-05	9.80E-05	1.16E-04	1.36E-04	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = LN-ET	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	0.0	1.32E-06	7.93E-05	3.84E-04	4.40E-04	5.60E-04	6.93E-04	7.30E-04	7.57E-04	7.01E-04
UB_Wall	0.0	0.0	0.0	0.0	1.09E-07	2.30E-06	8.49E-06	2.54E-05	4.75E-05	6.36E-05	7.81E-05	9.72E-05
Bone_Sur	9.91E-06	2.72E-04	2.85E-03	1.46E-02	2.16E-02	1.19E-02	6.64E-03	4.77E-03	4.48E-03	4.21E-03	3.95E-03	3.26E-03
Brain	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03
Breasts	0.0	0.0	4.83E-08	8.72E-05	6.19E-04	1.51E-03	1.53E-03	1.78E-03	2.01E-03	2.11E-03	2.15E-03	2.06E-03
St_Wall	0.0	0.0	0.0	6.65E-07	4.41E-05	1.18E-04	2.77E-04	3.99E-04	4.83E-04	5.39E-04	5.64E-04	5.36E-04
SI_Wall	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-04	1.41E-04	2.13E-04
ULI_Wall	0.0	0.0	0.0	6.60E-09	2.92E-06	2.49E-05	5.81E-05	1.20E-04	1.67E-04	1.99E-04	2.18E-04	2.34E-04
LLI_Wall	0.0	0.0	0.0	5.01E-10	4.60E-07	5.71E-06	1.66E-05	4.08E-05	6.81E-05	8.67E-05	1.03E-04	1.21E-04
Kidneys	0.0	0.0	0.0	1.02E-07	1.58E-05	9.12E-05	2.32E-04	3.73E-04	4.15E-04	4.20E-04	4.17E-04	3.99E-04
Liver	0.0	0.0	0.0	1.13E-06	2.03E-04	3.67E-04	5.16E-04	6.15E-04	6.41E-04	6.54E-04	6.67E-04	7.29E-04
ET1-bas	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00
ET2-bas	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00
LN-ET	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00
BBi-bas	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
BBi-sec	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
bbe-sec	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
AI	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
LN-Th	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
Lng_Tiss	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Muscle	3.00E-03	7.86E-03	1.16E-02	1.24E-02	8.60E-03	5.84E-03	5.55E-03	5.48E-03	5.12E-03	4.78E-03	4.49E-03	3.71E-03
Ovaries	0.0	0.0	0.0	2.32E-10	4.18E-07	6.28E-06	1.94E-05	4.87E-05	8.13E-05	1.03E-04	1.21E-04	1.41E-04
Pancreas	0.0	0.0	0.0	8.12E-07	5.87E-05	2.94E-04	4.69E-04	5.62E-04	6.51E-04	6.74E-04	6.71E-04	6.28E-04
R_Marrow	1.19E-06	3.25E-05	3.40E-04	1.96E-03	3.86E-03	3.98E-03	3.86E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	2.69E-03
Skin	0.0	2.45E-05	5.08E-04	2.22E-03	2.45E-03	2.11E-03	2.27E-03	2.39E-03	2.49E-03	2.42E-03	2.28E-03	1.79E-03
Spleen	0.0	0.0	0.0	4.52E-07	2.51E-04	3.51E-04	4.53E-04	5.52E-04	5.77E-04	5.74E-04	5.65E-04	5.32E-04
Testes	0.0	0.0	0.0	0.0	1.12E-08	4.37E-07	2.19E-06	8.91E-06	2.04E-05	3.00E-05	3.95E-05	5.54E-05
Thymus	0.0	6.40E-09	3.18E-05	3.18E-03	6.91E-03	8.52E-03	7.47E-03	7.01E-03	7.69E-03	7.54E-03	7.05E-03	5.26E-03
Thyroid	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03
GB_Wall	0.0	0.0	0.0	1.47E-07	1.94E-05	9.88E-05	1.84E-05	2.95E-04	4.05E-04	4.33E-04	4.24E-04	
Ht_Wall	0.0	0.0	1.20E-07	1.03E-04	1.00E-03	2.21E-03	2.10E-03	2.32E-03	2.29E-03	2.03E-03	2.03E-03	
Uterus	0.0	0.0	1.83E-10	3.63E-07	5.66E-06	1.78E-05	4.56E-05	7.71E-05	9.80E-05	1.16E-04	1.36E-04	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = BBi-gel	Energy (MeV)											
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	3.48E-04
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	2.82E-03
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	8.23E-04
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	3.98E-03
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	1.02E-03
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	4.69E-04
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	2.70E-03
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	5.71E-03
ET1-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
ET2-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
LN-ET	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
BBi-bas	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
BBi-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
bbe-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
AI	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
LN-Th	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	2.91E-03
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.15E-04	5.42E-04	5.57E-04	5.63E-04
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.55E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	3.76E-03
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.19E-03	2.14E-03	1.78E-03
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	5.23E-03
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.32E-03	3.24E-03	3.17E-03	2.77E-03
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	1.16E-02
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	5.34E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = BBi-sol	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	3.48E-04
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	2.82E-03
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	8.23E-04
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	3.98E-03
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	1.02E-03
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	4.69E-04
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	2.70E-03
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	5.71E-03
ET1-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
ET2-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
LN-ET	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
BBi-bas	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
BBi-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
bbe-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
AI	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
LN-Th	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	2.91E-03
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.15E-04	5.42E-04	5.57E-04	5.63E-04
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.55E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	3.76E-03
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.19E-03	2.14E-03	1.78E-03
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	5.23E-03
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.32E-03	3.24E-03	3.17E-03	2.77E-03
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	1.16E-02
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	5.34E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = BBi-lnd	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	3.48E-04
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	2.82E-03
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	8.23E-04
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	3.98E-03
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	1.02E-03
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	4.69E-04
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	2.70E-03
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	5.71E-03
ET1-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
ET2-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
LN-ET	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
BBi-bas	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
BBi-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
bbe-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
AI	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
LN-Th	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	2.91E-03
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.15E-04	5.42E-04	5.57E-04	5.63E-04
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.55E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	3.76E-03
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.19E-03	2.14E-03	1.78E-03
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	5.23E-03
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.32E-03	3.24E-03	3.17E-03	2.77E-03
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	1.16E-02
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	5.34E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = BBi-seq	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	3.48E-04
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	2.82E-03
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	8.23E-04
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	3.98E-03
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	1.02E-03
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	4.69E-04
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	2.70E-03
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	5.71E-03
ET1-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
ET2-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
LN-ET	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
BBi-bas	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
BBi-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
bbe-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
AI	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
LN-Th	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	2.91E-03
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.15E-04	5.42E-04	5.57E-04	5.63E-04
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.55E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	3.76E-03
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.19E-03	2.14E-03	1.78E-03
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	5.23E-03
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.32E-03	3.24E-03	3.17E-03	2.77E-03
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	1.16E-02
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	5.34E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = bbe-gel	Energy (MeV)											
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.05E-03	7.15E-03	
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	3.48E-04
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	2.82E-03
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	8.23E-04
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	3.98E-03
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	1.02E-03
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	4.69E-04
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	2.70E-03
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	5.71E-03
ET1-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
ET2-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
LN-ET	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
BBi-bas	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
BBi-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
bbe-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
AI	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
LN-Th	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	2.91E-03
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.15E-04	5.42E-04	5.57E-04	5.63E-04
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.55E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	3.76E-03
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.19E-03	2.14E-03	1.78E-03
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	5.23E-03
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.32E-03	3.24E-03	3.17E-03	2.77E-03
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	1.16E-02
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	5.34E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = bbe-sol	Energy (MeV)											
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.05E-03	7.15E-03	
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	3.48E-04
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	2.82E-03
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	8.23E-04
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	3.98E-03
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	1.02E-03
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	4.69E-04
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	2.70E-03
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	5.71E-03
ET1-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
ET2-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
LN-ET	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
BBi-bas	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
BBi-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
bbe-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
AI	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
LN-Th	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	2.91E-03
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.15E-04	5.42E-04	5.57E-04	5.63E-04
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.55E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	3.76E-03
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.19E-03	2.14E-03	1.78E-03
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	5.23E-03
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.32E-03	3.24E-03	3.17E-03	2.77E-03
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	1.16E-02
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	5.34E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = bbe-lnd	Energy (MeV)											
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.05E-03	7.15E-03	
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	3.48E-04
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	2.82E-03
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	8.23E-04
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	3.98E-03
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	1.02E-03
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	4.69E-04
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	2.70E-03
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	5.71E-03
ET1-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
ET2-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
LN-ET	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
BBi-bas	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
BBi-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
bbe-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
AI	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
LN-Th	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	2.91E-03
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.15E-04	5.42E-04	5.57E-04	5.63E-04
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.55E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	3.76E-03
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.19E-03	2.14E-03	1.78E-03
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	5.23E-03
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.32E-03	3.24E-03	3.17E-03	2.77E-03
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	1.16E-02
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	5.34E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = bbe-seq	Energy (MeV)											
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.05E-03	7.15E-03	
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	3.48E-04
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	2.82E-03
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	8.23E-04
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	3.98E-03
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	1.02E-03
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	4.69E-04
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	2.70E-03
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	5.71E-03
ET1-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
ET2-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
LN-ET	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
BBi-bas	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
BBi-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
bbe-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
AI	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
LN-Th	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	2.91E-03
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.15E-04	5.42E-04	5.57E-04	5.63E-04
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.55E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	3.76E-03
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.19E-03	2.14E-03	1.78E-03
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	5.23E-03
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.32E-03	3.24E-03	3.17E-03	2.77E-03
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	1.16E-02
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	5.34E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = AI	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000	
		Energy (MeV)												
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03		
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	3.48E-04		
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	2.82E-03		
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	8.23E-04		
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03		
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	3.98E-03		
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04		
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	1.02E-03		
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	4.69E-04		
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	2.70E-03		
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	5.71E-03		
ET1-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03		
ET2-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03		
LN-ET	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03		
BBi-bas	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02		
BBi-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02		
bbe-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02		
AI	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02		
LN-Th	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02		
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02		
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	2.91E-03		
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.15E-04	5.42E-04	5.57E-04	5.63E-04		
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03		
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.55E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	3.76E-03		
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.19E-03	2.14E-03	1.78E-03		
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	5.23E-03		
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04		
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03		
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03		
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.32E-03	3.24E-03	3.17E-03	2.77E-03		
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	1.16E-02		
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	5.34E-04		

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = LN-Th	Energy (MeV)											
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.05E-03	7.15E-03	
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	3.48E-04
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	2.82E-03
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	8.23E-04
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	3.98E-03
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	1.02E-03
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	4.69E-04
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	2.70E-03
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	5.71E-03
ET1-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
ET2-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
LN-ET	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03
BBi-bas	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
BBi-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
bbe-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
AI	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
LN-Th	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_NP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_TB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lung_P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	2.91E-03
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.15E-04	5.42E-04	5.57E-04	5.63E-04
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.55E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	3.76E-03
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.19E-03	2.14E-03	1.78E-03
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	5.23E-03
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.32E-03	3.24E-03	3.17E-03	2.77E-03
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	1.16E-02
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	5.34E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Lng_Cont	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.05E-03	7.15E-03	
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	
ET1-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.04E-03	
ET2-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.04E-03	
LN-ET	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.04E-03	
BBi-bas	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
BBi-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
bbe-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
AI	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
LN-Th	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
Lung_NP	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.04E-03	
Lung_TB	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
Lung_P	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.15E-04	5.42E-04	5.57E-04	
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.55E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	3.76E-03	
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.14E-03	1.78E-03	
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.32E-03	3.24E-03	2.77E-03	
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Lng_Tiss	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.05E-03	7.15E-03	
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	
ET1-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	
ET2-bas	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	
LN-ET	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	
BBi-bas	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
BBi-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
bbe-sec	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
AI	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
LN-Th	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
Lung_NP	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	
Lung_TB	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
Lung_P	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.15E-04	5.42E-04	5.57E-04	
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.55E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.14E-03	1.78E-03	
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.32E-03	3.24E-03	2.77E-03	
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = NP_Cont	Energy (MeV)					
Target	0.010	0.015	0.020	0.030	0.050	0.100
Adrenals	0.0	0.0	0.0	1.32E-06	7.93E-05	3.84E-04
UB_Wall	0.0	0.0	0.0	0.0	1.09E-07	2.30E-06
Bone_Sur	9.91E-06	2.72E-04	2.85E-03	1.46E-02	2.16E-02	1.19E-02
Brain	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03
Breasts	0.0	0.0	4.83E-08	8.72E-05	6.19E-04	1.51E-03
St_Wall	0.0	0.0	0.0	6.65E-07	4.41E-05	1.18E-04
SI_Wall	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-05
ULI_Wall	0.0	0.0	0.0	6.60E-09	2.92E-06	2.49E-05
LLI_Wall	0.0	0.0	0.0	5.01E-10	4.60E-07	5.71E-06
Kidneys	0.0	0.0	0.0	1.02E-07	1.58E-05	9.12E-05
Liver	0.0	0.0	0.0	1.13E-06	2.03E-04	3.67E-04
ET1-bas	0.0	0.0	0.0	0.0	0.0	0.0
ET2-bas	0.0	0.0	0.0	0.0	0.0	0.0
LN-ET	0.0	0.0	0.0	0.0	0.0	0.0
BBi-bas	0.0	0.0	0.0	0.0	0.0	0.0
BBi-sec	0.0	0.0	0.0	0.0	0.0	0.0
bbe-sec	0.0	0.0	0.0	0.0	0.0	0.0
AI	0.0	0.0	0.0	0.0	0.0	0.0
LN-Th	0.0	0.0	0.0	0.0	0.0	0.0
Lng_Tiss	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.09E-03
Lung_NP	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00
Lung_TB	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.09E-03
Lung_P	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.09E-03
Muscle	3.00E-03	7.86E-03	1.16E-02	1.24E-02	8.60E-03	5.84E-03
Ovaries	0.0	0.0	0.0	2.32E-10	4.18E-07	6.28E-06
Pancreas	0.0	0.0	0.0	8.12E-07	5.87E-05	2.94E-04
R_Marrow	1.19E-06	3.25E-05	3.40E-04	1.96E-03	3.86E-03	3.98E-03
Skin	0.0	2.45E-05	5.08E-04	2.22E-03	2.45E-03	2.11E-03
Spleen	0.0	0.0	0.0	4.52E-07	2.51E-04	3.51E-04
Testes	0.0	0.0	0.0	1.12E-08	4.37E-07	2.19E-06
Thymus	0.0	6.40E-09	3.18E-05	3.18E-03	6.91E-03	8.52E-03
Thyroid	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03
GB_Wall	0.0	0.0	1.47E-07	1.94E-05	9.88E-05	1.84E-05
Ht_Wall	0.0	0.0	1.20E-07	1.03E-04	1.00E-03	2.21E-03
Uterus	0.0	0.0	1.83E-10	3.63E-07	5.66E-06	1.78E-05

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = TB_Cont	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	3.48E-04
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	2.82E-03
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	8.23E-04
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	3.98E-03
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	1.02E-03
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	4.69E-04
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	2.70E-03
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	5.71E-03
ET1-bas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET2-bas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LN-ET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBi-bas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBi-sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
bbe-sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LN-Th	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_NP	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
Lung_TB	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_P	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	2.91E-03
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.19E-02	4.74E-02	4.32E-02	3.98E-02
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.05E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	3.76E-03
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.19E-03	2.14E-03	1.78E-03
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	5.23E-03
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.24E-03	3.17E-03	2.77E-03	
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	1.16E-02
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	5.34E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = P_Cont	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	3.48E-04
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	2.82E-03
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	8.23E-04
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	3.98E-03
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	1.02E-03
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	4.69E-04
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	2.70E-03
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	5.71E-03
ET1-bas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET2-bas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LN-ET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBi-bas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBi-sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
bbe-sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LN-Th	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_NP	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
Lung_TB	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_P	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	2.91E-03
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.19E-04	5.42E-04	5.57E-04	5.63E-04
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.05E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	3.76E-03
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.14E-03	1.78E-03	
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	5.23E-03
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.24E-03	3.17E-03	2.77E-03	
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	1.16E-02
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	5.34E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = LN_Lung	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	3.68E-05	5.79E-04	4.09E-03	1.31E-02	1.43E-02	1.19E-02	1.13E-02	1.06E-02	9.50E-03	8.62E-03	8.05E-03	7.15E-03
UB_Wall	0.0	0.0	0.0	1.29E-07	1.22E-05	4.48E-05	9.82E-05	1.72E-04	2.27E-04	2.62E-04	2.87E-04	3.48E-04
Bone_Sur	4.51E-05	9.04E-04	4.69E-03	1.64E-02	2.01E-02	1.03E-02	5.60E-03	4.21E-03	3.83E-03	3.56E-03	3.34E-03	2.82E-03
Brain	0.0	0.0	7.47E-09	1.08E-05	1.62E-04	3.41E-04	4.41E-04	6.12E-04	7.29E-04	7.85E-04	8.13E-04	8.23E-04
Breasts	2.90E-08	4.70E-04	4.43E-03	1.63E-02	1.56E-02	1.16E-02	1.10E-02	1.10E-02	1.04E-02	9.71E-03	9.05E-03	6.99E-03
St_Wall	1.10E-04	6.10E-04	2.06E-03	5.58E-03	7.23E-03	6.19E-03	5.53E-03	5.17E-03	5.05E-03	4.86E-03	4.64E-03	3.98E-03
SI_Wall	0.0	0.0	1.32E-08	1.80E-05	2.99E-04	6.37E-04	7.23E-04	8.78E-04	1.08E-03	1.05E-03	9.81E-04	8.72E-04
ULI_Wall	0.0	0.0	3.24E-08	4.66E-05	4.10E-04	8.64E-04	9.65E-04	1.06E-03	1.17E-03	1.14E-03	1.09E-03	1.02E-03
LLI_Wall	0.0	0.0	7.04E-10	3.07E-06	6.35E-05	1.43E-04	2.00E-04	3.10E-04	3.76E-04	4.32E-04	4.68E-04	4.69E-04
Kidneys	0.0	1.29E-07	4.23E-05	1.07E-03	2.98E-03	3.38E-03	3.23E-03	3.23E-03	3.48E-03	3.29E-03	3.08E-03	2.70E-03
Liver	1.18E-04	2.95E-03	9.54E-03	1.59E-02	1.40E-02	1.05E-02	9.35E-03	8.67E-03	8.14E-03	7.62E-03	7.13E-03	5.71E-03
ET1-bas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ET2-bas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LN-ET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBi-bas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BBi-sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
bbe-sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LN-Th	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lng_Tiss	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_NP	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
Lung_TB	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Lung_P	9.13E-01	7.21E-01	5.02E-01	2.38E-01	9.39E-02	5.26E-02	5.04E-02	5.19E-02	4.74E-02	4.32E-02	3.98E-02	3.13E-02
Muscle	1.72E-03	4.97E-03	8.03E-03	9.10E-03	6.59E-03	4.66E-03	4.43E-03	4.33E-03	4.07E-03	3.79E-03	3.55E-03	2.91E-03
Ovaries	0.0	0.0	0.0	1.44E-06	5.18E-05	1.99E-04	3.69E-04	4.76E-04	5.19E-02	4.74E-02	4.32E-02	3.98E-02
Pancreas	2.91E-08	1.18E-05	8.39E-04	6.24E-03	1.06E-02	9.34E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
R_Marrow	1.77E-05	3.10E-04	1.45E-03	4.56E-03	6.06E-03	5.05E-03	5.44E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	3.76E-03
Skin	1.12E-06	3.88E-05	4.79E-04	1.94E-03	2.29E-03	1.96E-03	2.02E-03	2.18E-03	2.19E-03	2.19E-03	2.14E-03	1.78E-03
Spleen	8.49E-05	8.52E-04	4.38E-03	1.06E-02	1.11E-02	8.43E-03	7.67E-03	7.24E-03	7.01E-03	6.54E-03	6.12E-03	5.23E-03
Testes	0.0	0.0	0.0	2.49E-09	1.14E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Thymus	0.0	8.65E-06	1.26E-03	1.24E-02	1.95E-02	1.54E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Thyroid	0.0	2.45E-08	3.13E-05	1.53E-03	4.27E-03	4.59E-03	4.09E-03	4.20E-03	3.96E-03	3.90E-03	3.80E-03	3.04E-03
GB_Wall	0.0	6.66E-08	2.77E-05	1.05E-03	3.49E-03	3.81E-03	3.60E-03	3.52E-03	3.24E-03	3.17E-03	2.77E-03	
Ht_Wall	9.12E-05	3.33E-03	1.59E-02	3.48E-02	3.28E-02	2.27E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	1.16E-02
Uterus	0.0	0.0	0.0	9.90E-07	5.24E-05	1.56E-04	2.70E-04	3.71E-04	4.32E-04	4.64E-04	4.86E-04	5.34E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Muscle	Energy (MeV)						
	0.010	0.015	0.020	0.030	0.050	0.100	0.200
Target	1.000	1.000	1.000	1.000	1.000	1.500	2.000
Adrenals	8.58E-03	1.11E-02	1.01E-02	7.25E-03	5.54E-03	5.40E-03	5.36E-03
UB_Wall	3.75E-03	9.10E-03	9.49E-03	9.43E-03	7.07E-03	6.55E-03	6.42E-03
Bone_Sur	1.47E-03	4.92E-03	9.95E-03	1.91E-02	2.06E-02	1.06E-02	6.35E-03
Brain	5.46E-07	6.87E-06	4.14E-05	5.21E-04	1.08E-03	1.09E-03	1.12E-03
Breasts	3.61E-04	1.06E-03	1.85E-03	2.70E-03	2.60E-03	2.09E-03	2.10E-03
St_Wall	1.98E-03	5.01E-03	7.46E-03	8.99E-03	7.43E-03	5.46E-03	5.12E-03
SI_Wall	6.87E-04	2.08E-03	3.86E-03	6.61E-03	7.10E-03	5.73E-03	5.25E-03
ULI_Wall	5.40E-04	2.08E-03	4.15E-03	6.97E-03	7.11E-03	5.58E-03	5.18E-03
LLI_Wall	1.56E-03	3.98E-03	6.40E-03	9.10E-03	8.68E-03	6.77E-03	6.28E-03
Kidneys	1.29E-03	3.91E-03	6.70E-03	8.23E-03	6.45E-03	4.91E-03	4.73E-03
Liver	5.74E-04	1.69E-03	3.10E-03	4.91E-03	4.80E-03	3.81E-03	3.60E-03
ET1-bas	3.00E-03	7.86E-03	1.16E-02	1.24E-02	8.60E-03	5.84E-03	5.55E-03
ET2-bas	3.00E-03	7.86E-03	1.16E-02	1.24E-02	8.60E-03	5.84E-03	5.55E-03
LN-ET	3.00E-03	7.86E-03	1.16E-02	1.24E-02	8.60E-03	5.84E-03	5.55E-03
BBi-bas	1.93E-03	5.57E-03	9.01E-03	1.02E-02	7.11E-03	4.71E-03	4.43E-03
BBi-sec	1.93E-03	5.57E-03	9.01E-03	1.02E-02	7.11E-03	4.71E-03	4.43E-03
bbe-sec	1.93E-03	5.57E-03	9.01E-03	1.02E-02	7.11E-03	4.71E-03	4.43E-03
AI	1.93E-03	5.57E-03	9.01E-03	1.02E-02	7.11E-03	4.71E-03	4.43E-03
LN-Th	1.93E-03	5.57E-03	9.01E-03	1.02E-02	7.11E-03	4.71E-03	4.43E-03
Lng_Tiss	1.93E-03	5.57E-03	9.01E-03	1.02E-02	7.11E-03	4.71E-03	4.43E-03
Lung_NP	3.00E-03	7.86E-03	1.16E-02	1.24E-02	8.60E-03	5.84E-03	5.55E-03
Lung_TB	1.93E-03	5.57E-03	9.01E-03	1.02E-02	7.11E-03	4.71E-03	4.43E-03
Lung_P	1.93E-03	5.57E-03	9.01E-03	1.02E-02	7.11E-03	4.71E-03	4.43E-03
Muscle	1.87E-02	1.73E-02	1.53E-02	1.14E-02	7.22E-03	5.18E-03	5.13E-03
Ovaries	3.68E-03	8.36E-03	1.10E-02	1.14E-02	9.51E-03	7.28E-03	6.74E-03
Pancreas	1.85E-03	5.16E-03	8.45E-03	1.05E-02	8.65E-03	6.35E-03	5.84E-03
R_Marrow	4.47E-04	1.31E-03	2.41E-03	4.12E-03	4.93E-03	4.51E-03	4.48E-03
Skin	3.85E-03	5.95E-03	6.49E-03	5.39E-03	3.57E-03	2.73E-03	2.87E-03
Spleen	1.08E-03	3.34E-03	6.07E-03	8.66E-03	7.23E-03	5.23E-03	4.91E-03
Testes	1.84E-03	4.74E-03	7.25E-03	8.51E-03	6.63E-03	4.89E-03	4.80E-03
Thymus	2.43E-03	6.84E-03	1.01E-02	1.06E-02	7.59E-03	5.32E-03	5.04E-03
Thyroid	3.00E-03	7.86E-03	1.16E-02	1.24E-02	8.60E-03	5.84E-03	5.55E-03
GB_Wall	5.64E-03	8.45E-03	9.86E-03	1.02E-02	8.09E-03	6.02E-03	5.59E-03
Ht_Wall	1.38E-03	3.31E-03	5.08E-03	6.79E-03	6.19E-03	4.33E-03	4.30E-03
Uterus	1.45E-03	4.37E-03	7.86E-03	1.09E-02	9.77E-03	7.34E-03	6.10E-03

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Ovaries	Energy (MeV)												
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	3.16E-09	2.54E-05	4.76E-04	1.18E-03	2.08E-03	1.73E-03	1.56E-03	1.50E-03	1.46E-03	1.39E-03	1.39E-03
UB_Wall	0.0	2.71E-05	2.59E-03	2.29E-02	3.78E-02	2.92E-02	2.50E-02	2.32E-02	1.91E-02	1.80E-02	1.73E-02	1.45E-02	1.45E-02
Bone_Sur	0.0	4.30E-05	1.82E-03	1.20E-02	1.79E-02	1.04E-02	5.73E-03	3.71E-03	3.41E-03	3.16E-03	2.97E-03	2.63E-03	2.63E-03
Brain	0.0	0.0	0.0	0.0	1.56E-08	3.21E-07	1.38E-06	5.58E-06	1.44E-05	2.30E-05	3.20E-05	5.36E-05	5.36E-05
Breasts	0.0	0.0	0.0	0.0	1.71E-07	2.18E-05	1.08E-04	1.59E-04	2.82E-04	3.89E-04	4.28E-04	4.42E-04	4.46E-04
St_Wall	0.0	1.333E-10	2.10E-06	3.92E-04	1.91E-03	2.99E-03	2.85E-03	3.22E-03	3.28E-03	3.23E-03	3.11E-03	2.52E-03	2.52E-03
SI_Wall	2.66E-03	1.98E-02	5.27E-02	8.80E-02	7.10E-02	4.77E-02	4.24E-02	3.95E-02	3.65E-02	3.32E-02	3.05E-02	2.47E-02	2.47E-02
ULI_Wall	7.53E-03	5.96E-02	1.01E-01	9.75E-02	6.43E-02	4.25E-02	3.81E-02	3.49E-02	3.29E-02	3.12E-02	2.95E-02	2.41E-02	2.41E-02
LLI_Wall	1.47E-02	9.01E-02	1.63E-01	1.57E-01	8.97E-02	5.64E-02	5.15E-02	5.16E-02	4.62E-02	4.24E-02	3.95E-02	3.22E-02	3.22E-02
Kidneys	0.0	0.0	0.0	0.0	5.77E-04	2.03E-03	3.53E-03	3.48E-03	3.63E-03	3.50E-03	3.26E-03	3.13E-03	3.05E-03
Liver	0.0	0.0	0.0	0.0	5.72E-07	1.24E-04	1.08E-03	1.86E-03	1.92E-03	2.01E-03	2.11E-03	2.15E-03	1.81E-03
ET1-bas	0.0	0.0	0.0	0.0	2.32E-10	4.18E-07	6.28E-06	1.94E-05	4.87E-05	8.13E-05	1.03E-04	1.21E-04	1.41E-04
ET2-bas	0.0	0.0	0.0	0.0	2.32E-10	4.18E-07	6.28E-06	1.94E-05	4.87E-05	8.13E-05	1.03E-04	1.21E-04	1.41E-04
LN-ET	0.0	0.0	0.0	0.0	2.32E-10	4.18E-07	6.28E-06	1.94E-05	4.87E-05	8.13E-05	1.03E-04	1.21E-04	1.41E-04
BBi-bas	0.0	0.0	0.0	0.0	1.61E-06	5.61E-05	2.01E-04	3.68E-04	4.77E-04	5.17E-04	5.42E-04	5.56E-04	5.63E-04
BBi-sec	0.0	0.0	0.0	0.0	1.61E-06	5.61E-05	2.01E-04	3.68E-04	4.77E-04	5.17E-04	5.42E-04	5.56E-04	5.63E-04
bbe-sec	0.0	0.0	0.0	0.0	1.61E-06	5.61E-05	2.01E-04	3.68E-04	4.77E-04	5.17E-04	5.42E-04	5.56E-04	5.63E-04
AI	0.0	0.0	0.0	0.0	1.61E-06	5.61E-05	2.01E-04	3.68E-04	4.77E-04	5.17E-04	5.42E-04	5.56E-04	5.63E-04
LN-Th	0.0	0.0	0.0	0.0	1.61E-06	5.61E-05	2.01E-04	3.68E-04	4.77E-04	5.17E-04	5.42E-04	5.56E-04	5.63E-04
Lng_Tiss	0.0	0.0	0.0	0.0	1.61E-06	5.61E-05	2.01E-04	3.68E-04	4.77E-04	5.17E-04	5.42E-04	5.56E-04	5.63E-04
Lung_NP	0.0	0.0	0.0	0.0	2.32E-10	4.18E-07	6.28E-06	1.94E-05	4.87E-05	8.13E-05	1.03E-04	1.21E-04	1.41E-04
Lung_TB	0.0	0.0	0.0	0.0	1.61E-06	5.61E-05	2.01E-04	3.68E-04	4.77E-04	5.17E-04	5.42E-04	5.56E-04	5.63E-04
Lung_P	0.0	0.0	0.0	0.0	1.61E-06	5.61E-05	2.01E-04	3.68E-04	4.77E-04	5.17E-04	5.42E-04	5.56E-04	5.63E-04
Muscle	3.68E-03	8.36E-03	1.10E-02	1.14E-02	9.51E-03	7.28E-03	6.74E-03	6.59E-03	6.13E-03	5.72E-03	5.38E-03	4.50E-03	4.50E-03
Ovaries	7.34E+01	4.71E+01	2.71E+01	9.99E+00	3.19E+00	1.88E+00	2.03E+00	2.23E+00	2.14E+00	1.94E+00	1.82E+00	1.45E+00	1.45E+00
Pancreas	0.0	0.0	3.58E-08	7.65E-05	1.46E-03	1.74E-03	1.95E-03	2.04E-03	2.00E-03	1.95E-03	1.91E-03	1.81E-03	1.81E-03
R_Marrow	1.31E-10	3.01E-05	1.16E-03	7.33E-03	1.17E-02	1.09E-02	1.00E-02	9.70E-03	8.71E-03	7.85E-03	7.29E-03	6.38E-03	6.38E-03
Skin	0.0	1.39E-08	1.40E-05	3.76E-04	1.31E-03	1.46E-03	1.57E-03	1.70E-03	1.80E-03	1.68E-03	1.59E-03	1.56E-03	1.56E-03
Spleen	0.0	0.0	7.94E-08	7.96E-05	5.62E-04	1.79E-03	2.07E-03	1.69E-03	1.64E-03	1.69E-03	1.70E-03	1.64E-03	1.64E-03
Testes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thymus	0.0	0.0	5.26E-08	1.11E-05	6.74E-05	1.35E-04	2.30E-04	2.99E-04	3.34E-04	3.62E-04	3.62E-04	3.62E-04	3.62E-04
Thyroid	0.0	0.0	2.32E-10	4.18E-07	6.28E-06	1.94E-05	4.87E-05	8.13E-05	1.03E-04	1.21E-04	1.41E-04	1.41E-04	1.41E-04
GB_Wall	0.0	2.72E-10	5.34E-06	8.40E-04	4.73E-03	4.93E-03	4.99E-03	4.82E-03	4.55E-03	4.37E-03	4.23E-03	3.55E-03	3.55E-03
Ht_Wall	0.0	0.0	0.0	1.54E-06	8.18E-05	2.35E-04	4.19E-04	5.77E-04	6.42E-04	6.74E-04	6.97E-04	7.58E-04	7.58E-04
Uterus	2.06E-08	3.43E-03	3.91E-02	1.35E-01	1.24E-01	8.46E-02	6.81E-02	6.33E-02	5.64E-02	5.12E-02	5.44E-02	5.43E-02	5.43E-02

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Pancreas	Energy (MeV)											
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000
Adrenals	8.35E-09	9.41E-04	2.00E-02	8.13E-02	8.02E-02	5.68E-02	5.03E-02	4.54E-02	4.01E-02	3.49E-02	3.73E-02	2.74E-02
UB_Wall	0.0	0.0	3.81E-10	6.85E-06	2.01E-04	5.65E-04	8.83E-04	9.96E-04	9.89E-04	9.88E-04	9.86E-04	9.65E-04
Bone_Sur	1.42E-06	7.05E-05	1.13E-03	7.92E-03	1.55E-02	1.01E-02	5.83E-03	3.96E-03	3.56E-03	3.34E-03	3.14E-03	2.60E-03
Brain	0.0	0.0	0.0	4.66E-09	2.06E-06	1.14E-05	3.49E-05	8.65E-05	1.30E-04	1.57E-04	1.77E-04	2.33E-04
Breasts	0.0	0.0	9.07E-07	4.95E-04	2.08E-03	3.14E-03	3.14E-03	3.31E-03	3.39E-03	3.17E-03	2.96E-03	2.51E-03
St_Wall	2.58E-03	3.43E-02	8.88E-02	1.30E-01	1.02E-01	6.50E-02	5.76E-02	5.48E-02	4.96E-02	4.51E-02	4.16E-02	3.38E-02
SI_Wall	0.0	3.77E-08	3.29E-05	1.63E-03	6.73E-03	7.44E-03	6.64E-03	6.48E-03	5.72E-03	5.22E-03	4.89E-03	4.14E-03
ULI_Wall	0.0	8.69E-08	7.41E-05	3.06E-03	8.53E-03	8.99E-03	7.57E-03	6.92E-03	6.21E-03	5.98E-03	5.80E-03	5.01E-03
LLI_Wall	0.0	0.0	7.49E-07	3.45E-04	1.36E-03	1.98E-03	2.17E-03	2.11E-03	2.02E-03	1.97E-03	1.93E-03	1.84E-03
Kidneys	0.0	3.36E-05	2.46E-03	2.24E-02	3.41E-02	2.64E-02	2.33E-02	2.25E-02	2.05E-02	1.82E-02	1.65E-02	1.31E-02
Liver	2.00E-05	4.92E-04	4.78E-03	2.02E-02	2.55E-02	1.99E-02	1.77E-02	1.60E-02	1.43E-02	1.35E-02	1.27E-02	1.02E-02
ET1-bas	0.0	0.0	0.0	8.12E-07	5.87E-05	2.94E-04	4.69E-04	5.62E-04	6.51E-04	6.74E-04	6.71E-04	6.28E-04
ET2-bas	0.0	0.0	0.0	8.12E-07	5.87E-05	2.94E-04	4.69E-04	5.62E-04	6.51E-04	6.74E-04	6.71E-04	6.28E-04
LN-ET	0.0	0.0	0.0	8.12E-07	5.87E-05	2.94E-04	4.69E-04	5.62E-04	6.51E-04	6.74E-04	6.71E-04	6.28E-04
BBi-bas	3.32E-08	1.33E-05	9.39E-04	6.99E-03	1.15E-02	9.44E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
BBi-sec	3.32E-08	1.33E-05	9.39E-04	6.99E-03	1.15E-02	9.44E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
bbe-sec	3.32E-08	1.33E-05	9.39E-04	6.99E-03	1.15E-02	9.44E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
AI	3.32E-08	1.33E-05	9.39E-04	6.99E-03	1.15E-02	9.44E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
LN_Th	3.32E-08	1.33E-05	9.39E-04	6.99E-03	1.15E-02	9.44E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
Lng_Tiss	3.32E-08	1.33E-05	9.39E-04	6.99E-03	1.15E-02	9.44E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
Lung_NP	0.0	0.0	0.0	8.12E-07	5.87E-05	2.94E-04	4.69E-04	5.62E-04	6.51E-04	6.74E-04	6.71E-04	6.28E-04
Lung_TB	3.32E-08	1.33E-05	9.39E-04	6.99E-03	1.15E-02	9.44E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
Lung_P	3.32E-08	1.33E-05	9.39E-04	6.99E-03	1.15E-02	9.44E-03	7.80E-03	7.78E-03	6.81E-03	6.23E-03	5.84E-03	4.85E-03
Muscle	1.85E-03	5.16E-03	8.45E-03	1.05E-02	8.65E-03	6.35E-03	5.84E-03	5.70E-03	5.36E-03	5.02E-03	4.72E-03	3.94E-03
Ovaries	0.0	0.0	3.58E-08	7.65E-05	1.46E-03	1.74E-03	1.95E-03	2.04E-03	2.00E-03	1.95E-03	1.91E-03	1.81E-03
Pancreas	9.08E+00	7.14E+00	4.99E+00	2.33E+00	8.69E-01	5.03E-01	5.19E-01	5.44E-01	5.11E-01	4.71E-01	4.36E-01	3.41E-01
R_Marrow	7.77E-07	3.18E-05	4.42E-04	2.90E-03	6.24E-03	6.99E-03	7.02E-03	7.32E-03	6.37E-03	5.95E-03	5.65E-03	4.58E-03
Skin	0.0	1.23E-07	2.25E-05	4.22E-04	1.36E-03	1.48E-03	1.47E-03	1.68E-03	1.76E-03	1.66E-03	1.57E-03	1.47E-03
Spleen	2.36E-03	3.45E-02	1.00E-01	1.49E-01	1.06E-01	6.53E-02	6.02E-02	5.75E-02	4.96E-02	4.35E-02	4.00E-02	3.63E-02
Testes	0.0	0.0	0.0	1.12E-07	1.74E-05	9.35E-05	1.75E-04	2.88E-04	3.61E-04	3.98E-04	4.26E-04	4.18E-04
Thymus	0.0	0.0	2.46E-07	1.97E-04	1.48E-03	3.07E-03	2.99E-03	2.77E-03	2.45E-03	2.45E-03	2.50E-03	2.59E-03
Thyroid	0.0	0.0	0.0	8.12E-07	5.87E-05	2.94E-04	4.69E-04	5.62E-04	6.51E-04	6.74E-04	6.71E-04	6.28E-04
GB_Wall	7.71E-06	6.41E-03	2.83E-02	6.50E-02	5.80E-02	4.38E-02	3.50E-02	3.27E-02	2.81E-02	2.59E-02	2.43E-02	1.98E-02
Ht_Wall	0.0	9.12E-06	1.14E-03	1.22E-02	2.29E-02	1.88E-02	1.61E-02	1.46E-02	1.39E-02	1.29E-02	1.20E-02	9.98E-03
Uterus	0.0	0.0	2.38E-08	6.24E-05	9.51E-04	1.67E-03	2.10E-03	2.02E-03	1.99E-03	2.02E-03	1.90E-03	1.90E-03

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = R_Marrow	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	9.73E-05	4.18E-03	9.99E-03	1.33E-02	1.20E-02	1.24E-02	1.13E-02	1.06E-02	1.00E-02	1.00E-02	8.32E-03	
UB_Wall	0.0	3.52E-08	2.60E-05	8.66E-04	3.56E-03	4.74E-03	4.42E-03	3.05E-03	3.55E-03	3.29E-03	3.12E-03	
Bone_Sur	1.27E-01	1.25E-01	1.18E-01	9.82E-02	5.85E-02	2.33E-02	1.40E-02	1.21E-02	1.14E-02	1.05E-02	9.71E-03	
Brain	4.55E-04	1.44E-03	2.93E-03	5.20E-03	5.29E-03	3.98E-03	4.01E-03	4.40E-03	4.17E-03	3.85E-03	3.60E-03	
Breasts	1.25E-05	4.07E-04	1.66E-03	2.98E-03	3.04E-03	2.54E-03	2.64E-03	3.09E-03	3.10E-03	2.98E-03	2.84E-03	
St_Wall	1.19E-05	1.03E-04	4.72E-04	1.61E-03	3.31E-03	4.08E-03	4.13E-03	4.00E-03	3.73E-03	3.48E-03	3.32E-03	
SI_Wall	2.92E-04	8.75E-04	1.97E-03	5.30E-03	9.41E-03	9.50E-03	8.93E-03	8.33E-03	7.78E-03	7.00E-03	6.42E-03	
ULI_Wall	1.00E-04	9.07E-04	2.42E-03	4.98E-03	7.85E-03	7.84E-03	7.62E-03	7.04E-03	6.62E-03	6.12E-03	5.72E-03	
LLI_Wall	2.99E-04	2.57E-03	6.46E-03	1.13E-02	1.22E-02	1.01E-02	9.60E-03	9.43E-03	8.74E-03	8.14E-03	7.60E-03	
Kidneys	1.49E-05	2.15E-04	1.43E-03	5.16E-03	8.68E-03	8.52E-03	8.45E-03	8.46E-03	7.85E-03	7.37E-03	6.96E-03	
Liver	3.30E-05	2.48E-04	7.96E-04	2.32E-03	4.03E-03	4.37E-03	4.47E-03	4.36E-03	4.42E-03	4.06E-03	3.81E-03	
ET1-bas	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.73E-03	3.89E-03	3.64E-03	3.37E-03	
ET2-bas	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	
LN-ET	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	
BBi-bas	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
BBi-sec	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
bbe-sec	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
AI	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
LN-Th	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
Lng_Tiss	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
Lung_NP	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.89E-03	3.64E-03	5.63E-03	5.11E-03	
Lung_TB	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
Lung_P	1.87E-05	3.90E-04	1.81E-03	5.14E-03	6.68E-03	5.54E-03	5.34E-03	5.63E-03	5.11E-03	4.73E-03	4.46E-03	
Muscle	4.47E-04	1.31E-03	2.41E-03	4.12E-03	4.93E-03	4.51E-03	4.48E-03	4.54E-03	4.37E-03	4.12E-03	3.88E-03	
Ovaries	0.0	3.02E-05	1.13E-03	7.41E-03	1.22E-02	1.12E-02	1.01E-02	9.70E-03	8.71E-03	7.85E-03	7.29E-03	
Pancreas	6.67E-07	3.08E-05	4.68E-04	2.94E-03	6.59E-03	7.39E-03	7.30E-03	7.32E-03	6.36E-03	5.96E-03	5.65E-03	
R_Marrow	6.39E-02	5.69E-02	5.04E-02	3.91E-02	2.78E-02	2.24E-02	2.27E-02	2.35E-02	2.19E-02	2.01E-02	1.86E-02	
Skin	3.45E-04	9.08E-04	1.47E-03	2.01E-03	2.13E-03	2.01E-03	2.15E-03	2.53E-03	2.44E-03	2.33E-03	2.24E-03	
Spleen	1.74E-07	1.13E-04	7.58E-04	2.36E-03	4.17E-03	4.69E-03	4.45E-03	4.58E-03	4.25E-03	4.02E-03	3.82E-03	
Testes	0.0	3.16E-09	3.17E-06	1.38E-04	8.94E-04	1.48E-03	1.63E-03	1.73E-03	1.64E-03	1.52E-03	1.45E-03	
Thymus	2.13E-05	2.57E-04	1.51E-03	3.42E-03	4.44E-03	4.20E-03	4.19E-03	4.20E-03	4.14E-03	3.88E-03	3.64E-03	
Thyroid	7.53E-07	2.65E-05	3.32E-04	1.81E-03	3.58E-03	3.85E-03	3.73E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	
GB_Wall	0.0	5.62E-07	5.44E-05	1.17E-03	4.42E-03	5.79E-03	5.61E-03	5.53E-03	4.67E-03	4.33E-03	4.13E-03	
Ht_Wall	4.26E-06	1.50E-04	7.94E-04	2.78E-03	5.21E-03	5.50E-03	5.30E-03	5.27E-03	4.87E-03	4.59E-03	4.36E-03	
Uterus	1.46E-10	3.32E-07	7.98E-05	1.98E-03	6.59E-03	7.84E-03	7.46E-03	6.71E-03	5.79E-03	5.36E-03	4.35E-03	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Skin	Energy (MeV)											
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000
Adrenals	0.0	9.62E-06	1.70E-04	1.06E-03	1.70E-03	1.66E-03	1.69E-03	1.95E-03	2.02E-03	1.83E-03	1.72E-03	1.76E-03
UB_Wall	4.45E-06	7.71E-05	5.83E-04	1.83E-03	2.22E-03	2.07E-03	2.08E-03	2.33E-03	2.36E-03	2.19E-03	2.06E-03	1.83E-03
Bone_Sur	1.56E-03	4.63E-03	8.32E-03	1.30E-02	1.27E-02	6.92E-03	4.44E-03	3.76E-03	3.63E-03	3.13E-03	2.45E-03	2.81E-03
Brain	2.57E-06	2.61E-05	1.35E-04	1.37E-03	2.17E-03	1.94E-03	2.11E-03	2.39E-03	2.45E-03	2.34E-03	2.26E-03	1.75E-03
Breasts	9.52E-03	1.58E-02	1.66E-02	1.11E-02	5.13E-03	3.48E-03	3.82E-03	4.18E-03	4.04E-03	3.87E-03	3.70E-03	3.13E-03
St_Wall	3.22E-06	5.90E-05	4.65E-04	1.71E-03	1.90E-03	1.73E-03	1.83E-03	2.10E-03	1.97E-03	1.88E-03	1.81E-03	1.62E-03
SI_Wall	1.11E-09	7.69E-07	7.98E-05	7.14E-04	1.41E-03	1.48E-03	1.52E-03	1.69E-03	1.79E-03	1.83E-03	1.80E-03	1.50E-03
ULI_Wall	1.88E-08	3.82E-06	1.66E-04	8.32E-04	1.50E-03	1.48E-03	1.60E-03	1.80E-03	1.81E-03	1.75E-03	1.69E-03	1.52E-03
LLI_Wall	6.14E-05	2.67E-04	5.67E-04	1.27E-03	2.00E-03	1.90E-03	1.91E-03	2.04E-03	2.10E-03	2.00E-03	1.91E-03	1.79E-03
Kidneys	1.48E-05	1.82E-04	1.08E-03	2.43E-03	2.15E-03	1.84E-03	1.98E-03	2.27E-03	2.36E-03	2.15E-03	1.98E-03	1.80E-03
Liver	1.33E-06	4.11E-05	4.69E-04	1.68E-03	2.01E-03	1.79E-03	1.79E-03	2.04E-03	2.23E-03	2.12E-03	1.99E-03	1.75E-03
ET1-bas	0.0	2.45E-05	5.08E-04	2.22E-03	2.45E-03	2.11E-03	2.27E-03	2.27E-03	2.39E-03	2.49E-03	2.42E-03	1.79E-03
ET2-bas	0.0	2.45E-05	5.08E-04	2.22E-03	2.45E-03	2.11E-03	2.27E-03	2.27E-03	2.39E-03	2.49E-03	2.42E-03	1.79E-03
LN-ET	0.0	2.45E-05	5.08E-04	2.22E-03	2.45E-03	2.11E-03	2.27E-03	2.27E-03	2.39E-03	2.49E-03	2.42E-03	1.79E-03
BBi-bas	1.27E-06	4.37E-05	5.36E-04	2.17E-03	2.47E-03	1.98E-03	2.02E-03	2.04E-03	2.23E-03	2.12E-03	1.99E-03	1.75E-03
BBi-sec	1.27E-06	4.37E-05	5.36E-04	2.17E-03	2.47E-03	1.98E-03	2.02E-03	2.04E-03	2.23E-03	2.12E-03	1.99E-03	1.75E-03
bbe-sec	1.27E-06	4.37E-05	5.36E-04	2.17E-03	2.47E-03	1.98E-03	2.02E-03	2.04E-03	2.23E-03	2.12E-03	1.99E-03	1.75E-03
AI	1.27E-06	4.37E-05	5.36E-04	2.17E-03	2.47E-03	1.98E-03	2.02E-03	2.04E-03	2.23E-03	2.12E-03	1.99E-03	1.75E-03
LN-Th	1.27E-06	4.37E-05	5.36E-04	2.17E-03	2.47E-03	1.98E-03	2.02E-03	2.04E-03	2.23E-03	2.12E-03	1.99E-03	1.75E-03
Lng_Tiss	1.27E-06	4.37E-05	5.36E-04	2.17E-03	2.47E-03	1.98E-03	2.02E-03	2.04E-03	2.23E-03	2.12E-03	1.99E-03	1.75E-03
Lung_NP	0.0	2.45E-05	5.08E-04	2.22E-03	2.45E-03	2.11E-03	2.27E-03	2.27E-03	2.39E-03	2.49E-03	2.42E-03	1.79E-03
Lung_TB	1.27E-06	4.37E-05	5.36E-04	2.17E-03	2.47E-03	1.98E-03	2.02E-03	2.04E-03	2.23E-03	2.12E-03	1.99E-03	1.75E-03
Lung_P	1.27E-06	4.37E-05	5.36E-04	2.17E-03	2.47E-03	1.98E-03	2.02E-03	2.04E-03	2.23E-03	2.12E-03	1.99E-03	1.75E-03
Muscle	3.85E-03	5.95E-03	6.49E-03	5.39E-03	3.57E-03	2.73E-03	2.87E-03	3.18E-03	3.09E-03	2.93E-03	2.79E-03	2.42E-03
Ovaries	0.0	1.39E-08	1.40E-05	3.76E-04	1.31E-03	1.46E-03	1.57E-03	1.70E-03	1.80E-03	1.68E-03	1.59E-03	1.56E-03
Pancreas	0.0	1.23E-07	2.25E-05	4.22E-04	1.36E-03	1.48E-03	1.47E-03	1.68E-03	1.76E-03	1.66E-03	1.57E-03	1.47E-03
R_Marrow	3.58E-04	9.37E-04	1.49E-03	2.02E-03	2.11E-03	2.05E-03	2.18E-03	2.44E-03	2.44E-03	2.39E-03	2.33E-03	2.26E-03
Skin	2.26E-01	1.18E-01	6.31E-02	2.46E-02	9.25E-03	5.99E-03	6.82E-03	7.57E-03	7.40E-03	6.95E-03	6.52E-03	5.38E-03
Spleen	5.87E-07	2.12E-05	2.70E-04	1.39E-03	1.96E-03	1.73E-03	1.78E-03	2.08E-03	2.16E-03	2.07E-03	1.96E-03	1.59E-03
Testes	1.40E-03	8.06E-03	1.43E-02	1.34E-02	7.49E-03	4.88E-03	5.15E-03	5.49E-03	5.31E-03	4.71E-03	4.28E-03	3.69E-03
Thymus	1.58E-07	1.67E-04	1.07E-03	2.71E-03	2.62E-03	2.15E-03	2.30E-03	2.62E-03	2.65E-03	2.56E-03	2.44E-03	1.97E-03
Thyroid	0.0	2.45E-05	5.08E-04	2.22E-03	2.45E-03	2.11E-03	2.27E-03	2.39E-03	2.49E-03	2.42E-03	2.28E-03	1.79E-03
GB_Wall	3.43E-09	1.59E-06	1.23E-04	7.56E-04	1.53E-03	1.49E-03	1.58E-03	1.67E-03	1.75E-03	1.77E-03	1.76E-03	1.62E-03
Ht_Wall	1.01E-05	9.27E-05	4.47E-04	1.38E-03	1.89E-03	1.79E-03	1.87E-03	2.01E-03	2.10E-03	1.96E-03	1.85E-03	1.81E-03
Uterus	0.0	2.52E-07	4.40E-05	5.86E-04	1.37E-03	1.54E-03	1.73E-03	1.73E-03	1.85E-03	1.83E-03	1.78E-03	1.55E-03

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Spleen	Energy (MeV)						
	0.010	0.015	0.020	0.030	0.050	0.100	0.200
Target	1.000	1.000	1.000	1.000	1.000	1.500	2.000
Adrenals	7.68E-05	4.68E-03	2.41E-02	3.41E-02	2.45E-02	2.11E-02	1.75E-02
UB_Wall	0.0	2.25E-10	4.70E-06	1.54E-04	3.19E-04	5.20E-04	7.45E-04
Bone_Sur	2.02E-05	3.15E-04	2.21E-03	8.69E-03	1.29E-02	7.57E-03	4.32E-03
Brain	0.0	0.0	0.0	3.61E-09	1.65E-06	9.52E-06	5.01E-05
Breasts	0.0	5.76E-07	5.70E-04	1.95E-03	2.14E-03	2.29E-03	1.15E-04
St_Wall	1.53E-08	6.71E-04	1.10E-02	5.23E-02	5.94E-02	4.12E-02	3.46E-02
SI_Wall	0.0	2.11E-07	5.01E-05	1.35E-03	4.41E-03	5.20E-03	4.81E-03
ULI_Wall	0.0	1.89E-07	6.47E-05	1.63E-03	4.68E-03	5.51E-03	4.96E-03
LLI_Wall	0.0	2.58E-09	5.86E-06	5.88E-04	1.77E-03	2.36E-03	2.18E-03
Kidneys	1.26E-04	7.00E-03	3.38E-02	6.35E-02	5.08E-02	3.36E-02	3.06E-02
Liver	0.0	1.01E-09	4.72E-06	5.42E-04	2.67E-03	3.63E-03	3.58E-03
ET1-bas	0.0	0.0	0.0	4.52E-07	2.51E-04	3.51E-04	4.53E-04
ET2-bas	0.0	0.0	0.0	4.52E-07	2.51E-04	3.51E-04	4.53E-04
LN-ET	0.0	0.0	0.0	4.52E-07	2.51E-04	3.51E-04	4.53E-04
BBi-bas	9.52E-05	9.55E-04	4.90E-03	1.19E-02	1.19E-02	1.20E-02	8.52E-03
BBi-sec	9.52E-05	9.55E-04	4.90E-03	1.19E-02	1.19E-02	1.20E-02	8.52E-03
bbe-sec	9.52E-05	9.55E-04	4.90E-03	1.19E-02	1.19E-02	1.20E-02	8.52E-03
AI	9.52E-05	9.55E-04	4.90E-03	1.19E-02	1.19E-02	1.20E-02	8.52E-03
LN-Th	9.52E-05	9.55E-04	4.90E-03	1.19E-02	1.19E-02	1.20E-02	8.52E-03
Lng_Tiss	9.52E-05	9.55E-04	4.90E-03	1.19E-02	1.19E-02	1.20E-02	8.52E-03
Lung_NP	0.0	0.0	4.90E-03	1.52E-02	1.21E-02	1.20E-02	8.52E-03
Lung_TB	9.52E-05	9.55E-04	4.90E-03	1.19E-02	1.19E-02	1.20E-02	8.52E-03
Lung_P	9.52E-05	9.55E-04	4.90E-03	1.19E-02	1.19E-02	1.20E-02	8.52E-03
Muscle	1.08E-03	3.34E-03	6.07E-03	8.66E-03	7.23E-03	5.23E-03	4.91E-03
Ovaries	0.0	0.0	7.94E-08	7.96E-05	5.62E-04	1.79E-03	2.07E-03
Pancreas	2.36E-03	3.45E-02	1.00E-01	1.49E-01	1.06E-01	6.53E-02	6.02E-02
R_Marrow	8.25E-06	1.11E-04	7.00E-04	2.40E-03	3.96E-03	4.19E-03	4.24E-03
Skin	5.87E-07	2.12E-05	2.70E-04	1.39E-03	1.96E-03	1.73E-03	1.78E-03
Spleen	5.25E+00	4.53E+00	3.49E+00	1.83E+00	7.37E-01	4.21E-01	4.30E-01
Testes	0.0	0.0	8.74E-08	1.43E-05	7.97E-05	1.54E-04	2.53E-04
Thymus	0.0	2.35E-08	5.51E-05	8.29E-04	2.08E-03	1.67E-03	1.73E-03
Thyroid	0.0	0.0	0.0	4.52E-07	2.51E-04	3.51E-04	4.53E-04
GB_Wall	0.0	5.62E-10	8.04E-06	1.43E-03	5.65E-03	7.26E-03	5.88E-03
Ht_Wall	0.0	5.23E-08	5.64E-05	2.91E-03	9.48E-03	9.02E-03	7.36E-03
Uterus	0.0	1.03E-08	3.76E-05	5.86E-04	1.18E-03	1.58E-03	1.78E-03

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Testes	Energy (MeV)												
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	0.0	0.0	3.03E-08	8.09E-06	5.42E-05	1.13E-04	2.00E-04	2.65E-04	3.00E-04	3.27E-04	3.31E-04
UB_Wall	0.0	7.52E-06	1.24E-03	1.12E-02	2.38E-02	1.97E-02	1.79E-02	1.57E-02	1.56E-02	1.42E-02	1.32E-02	1.21E-02	1.21E-02
Bone_Sur	0.0	2.97E-08	3.75E-05	1.58E-03	6.76E-03	6.02E-03	3.69E-03	2.65E-03	2.53E-03	2.36E-03	2.22E-03	1.94E-03	1.94E-03
Brain	0.0	0.0	0.0	0.0	0.0	3.77E-10	2.04E-08	1.46E-07	9.90E-07	3.61E-06	6.82E-06	1.07E-05	2.20E-05
Breasts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
St_Wall	0.0	0.0	0.0	0.0	5.83E-07	4.10E-05	1.63E-04	3.07E-04	4.08E-04	4.73E-04	4.96E-04	5.06E-04	5.24E-04
SI_Wall	0.0	0.0	2.04E-08	4.22E-05	6.53E-04	1.34E-03	1.32E-03	1.61E-03	1.83E-03	1.80E-03	1.72E-03	1.53E-03	1.53E-03
ULI_Wall	0.0	0.0	2.77E-08	4.37E-05	6.55E-04	8.24E-04	9.93E-04	1.19E-03	1.32E-03	1.39E-03	1.43E-03	1.54E-03	1.54E-03
LLI_Wall	0.0	1.86E-06	5.76E-04	5.78E-03	1.25E-02	1.03E-02	9.44E-03	9.22E-03	9.28E-03	8.39E-03	7.62E-03	6.23E-03	6.23E-03
Kidneys	0.0	0.0	0.0	0.0	3.77E-07	3.53E-05	1.13E-04	2.18E-04	3.66E-04	4.35E-04	4.59E-04	4.74E-04	5.21E-04
Liver	0.0	0.0	0.0	0.0	2.44E-07	2.32E-05	5.66E-05	1.10E-04	2.03E-04	2.81E-04	3.30E-04	3.67E-04	4.69E-04
ET1-bas	0.0	0.0	0.0	0.0	0.0	1.12E-08	4.37E-07	2.19E-06	8.91E-06	2.04E-05	3.00E-05	3.95E-05	5.54E-05
ET2-bas	0.0	0.0	0.0	0.0	0.0	1.12E-08	4.37E-07	2.19E-06	8.91E-06	2.04E-05	3.00E-05	3.95E-05	5.54E-05
LN-ET	0.0	0.0	0.0	0.0	0.0	1.12E-08	4.37E-07	2.19E-06	8.91E-06	2.04E-05	3.00E-05	3.95E-05	5.54E-05
BBi-bas	0.0	0.0	0.0	0.0	2.80E-09	1.24E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
BBi-sec	0.0	0.0	0.0	0.0	2.80E-09	1.24E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
bbe-sec	0.0	0.0	0.0	0.0	2.80E-09	1.24E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
AI	0.0	0.0	0.0	0.0	2.80E-09	1.24E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
LN-Th	0.0	0.0	0.0	0.0	2.80E-09	1.24E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Lng_Tiss	0.0	0.0	0.0	0.0	2.80E-09	1.24E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Lung_NP	0.0	0.0	0.0	0.0	0.0	1.12E-08	4.37E-07	2.19E-06	8.91E-06	2.04E-05	3.00E-05	3.95E-05	5.54E-05
Lung_TB	0.0	0.0	0.0	0.0	2.80E-09	1.24E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Lung_P	0.0	0.0	0.0	0.0	2.80E-09	1.24E-06	1.07E-05	2.86E-05	6.37E-05	9.92E-05	1.19E-04	1.32E-04	1.61E-04
Muscle	1.84E-03	4.74E-03	7.25E-03	8.51E-03	6.63E-03	4.89E-03	4.80E-03	4.96E-03	4.77E-03	4.52E-03	4.30E-03	3.64E-03	3.64E-03
Ovaries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pancreas	0.0	0.0	0.0	0.0	1.12E-07	1.74E-05	9.35E-05	1.75E-04	2.88E-04	3.61E-04	3.98E-04	4.26E-04	4.18E-04
R_Marrow	0.0	1.19E-08	2.27E-06	1.39E-04	8.19E-04	1.31E-03	1.41E-03	1.73E-03	1.64E-03	1.51E-03	1.45E-03	1.41E-03	1.41E-03
Skin	1.40E-03	8.06E-03	1.43E-02	1.34E-02	7.49E-03	4.88E-03	5.15E-03	5.49E-03	5.31E-03	4.71E-03	4.28E-03	3.69E-03	3.69E-03
Spleen	0.0	0.0	0.0	0.0	8.74E-08	1.43E-05	7.97E-05	1.54E-04	2.53E-04	3.28E-04	3.67E-04	3.86E-04	3.88E-04
Testes	2.57E+01	1.96E+01	1.31E+01	5.60E+00	1.96E+00	1.14E+00	1.23E+00	1.32E+00	1.23E+00	1.12E+00	1.03E+00	8.11E-01	8.11E-01
Thymus	0.0	0.0	0.0	0.0	1.53E-10	3.15E-07	5.06E-06	1.62E-05	4.21E-05	7.21E-05	9.22E-05	1.10E-04	1.29E-04
Thyroid	0.0	0.0	0.0	0.0	0.0	1.12E-08	4.37E-07	2.19E-06	8.91E-06	2.04E-05	3.00E-05	3.95E-05	5.54E-05
GB_Wall	0.0	0.0	0.0	0.0	1.37E-06	7.78E-05	2.71E-04	4.25E-04	5.86E-04	6.68E-04	6.88E-04	6.86E-04	6.86E-04
Ht_Wall	0.0	0.0	0.0	0.0	3.44E-09	2.00E-06	1.91E-05	4.77E-05	9.89E-05	1.46E-04	1.75E-04	1.95E-04	2.13E-04
Uterus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Thymus	Energy (MeV)											
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000
Adrenals	0.0	0.0	1.66E-07	1.78E-04	2.32E-03	2.71E-03	2.99E-03	3.09E-03	2.94E-03	2.79E-03	2.66E-03	2.34E-03
UB_Wall	0.0	0.0	6.95E-09	3.09E-06	2.63E-05	6.21E-05	1.22E-04	1.74E-04	2.05E-04	2.29E-04	2.42E-04	
Bone_Sur	4.32E-05	6.54E-04	4.50E-03	1.13E-02	1.27E-02	7.34E-03	4.31E-03	2.98E-03	2.93E-03	2.79E-03	2.64E-03	2.29E-03
Brain	0.0	0.0	4.81E-10	5.35E-06	1.22E-04	2.71E-04	4.49E-04	6.49E-04	7.88E-04	8.51E-04	8.87E-04	9.68E-04
Breasts	0.0	2.15E-06	6.77E-04	8.27E-03	1.48E-02	1.15E-02	1.21E-02	1.37E-02	1.22E-02	1.20E-02	1.18E-02	9.56E-03
St_Wall	0.0	0.0	4.35E-07	1.78E-04	9.08E-04	1.81E-03	1.81E-03	2.29E-03	2.29E-03	2.42E-03	2.43E-03	2.19E-03
SI_Wall	0.0	0.0	0.0	8.60E-07	5.28E-05	1.77E-04	3.14E-04	3.89E-04	4.51E-04	5.00E-04	5.41E-04	6.54E-04
ULI_Wall	0.0	0.0	0.0	1.68E-06	8.25E-05	1.98E-04	3.61E-04	5.65E-04	6.54E-04	6.75E-04	6.80E-04	6.71E-04
LLI_Wall	0.0	0.0	0.0	1.14E-07	1.20E-05	6.04E-05	1.13E-04	1.94E-04	2.50E-04	2.84E-04	3.01E-04	3.08E-04
Kidneys	0.0	0.0	1.52E-09	1.40E-05	3.93E-04	7.69E-04	1.02E-03	1.18E-03	1.23E-03	1.25E-03	1.26E-03	1.26E-03
Liver	0.0	1.57E-10	1.92E-06	5.89E-04	2.45E-03	3.02E-03	2.92E-03	2.94E-03	2.98E-03	2.97E-03	2.91E-03	2.57E-03
ET1-bas	0.0	6.40E-09	3.18E-05	3.18E-03	6.91E-03	8.52E-03	7.47E-03	7.01E-03	7.69E-03	7.54E-03	7.05E-03	5.26E-03
ET2-bas	0.0	6.40E-09	3.18E-05	3.18E-03	6.91E-03	8.52E-03	7.47E-03	7.01E-03	7.69E-03	7.54E-03	7.05E-03	5.26E-03
LN-ET	0.0	6.40E-09	3.18E-05	3.18E-03	6.91E-03	8.52E-03	7.47E-03	7.01E-03	7.69E-03	7.54E-03	7.05E-03	5.26E-03
BBi-bas	0.0	9.77E-06	1.41E-03	1.39E-02	2.10E-02	1.56E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
BBi-sec	0.0	9.77E-06	1.41E-03	1.39E-02	2.10E-02	1.56E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
bbe-sec	0.0	9.77E-06	1.41E-03	1.39E-02	2.10E-02	1.56E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
AI	0.0	9.77E-06	1.41E-03	1.39E-02	2.10E-02	1.56E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
LN-Th	0.0	9.77E-06	1.41E-03	1.39E-02	2.10E-02	1.56E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Lng_Tiss	0.0	9.77E-06	1.41E-03	1.39E-02	2.10E-02	1.56E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Lung_NP	0.0	6.40E-09	3.18E-05	3.18E-03	6.91E-03	8.52E-03	7.47E-03	7.01E-03	7.69E-03	7.54E-03	7.05E-03	5.26E-03
Lung_TB	0.0	9.77E-06	1.41E-03	1.39E-02	2.10E-02	1.56E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Lung_P	0.0	9.77E-06	1.41E-03	1.39E-02	2.10E-02	1.56E-02	1.35E-02	1.29E-02	1.19E-02	1.11E-02	1.03E-02	8.32E-03
Muscle	2.43E-03	6.84E-03	1.01E-02	1.06E-02	7.59E-03	5.32E-03	5.04E-03	5.06E-03	4.77E-03	4.48E-03	4.22E-03	3.51E-03
Ovaries	0.0	0.0	0.0	5.26E-08	1.11E-05	6.74E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.35E-05
Pancreas	0.0	0.0	2.46E-07	1.97E-04	1.48E-03	3.07E-03	2.99E-03	2.77E-03	2.45E-03	2.45E-03	2.50E-03	2.59E-03
R_Marrow	1.68E-05	2.30E-04	1.47E-03	3.46E-03	4.18E-03	4.11E-03	4.13E-03	4.20E-03	4.14E-03	4.14E-03	3.88E-03	3.64E-03
Skin	1.58E-07	1.67E-04	1.07E-03	2.71E-03	2.62E-03	2.15E-03	2.30E-03	2.62E-03	2.65E-03	2.56E-03	2.44E-03	1.97E-03
Spleen	0.0	0.0	2.35E-08	5.51E-05	8.29E-04	2.08E-03	1.67E-03	1.73E-03	2.07E-03	1.93E-03	1.79E-03	1.77E-03
Testes	0.0	0.0	0.0	1.53E-10	3.15E-07	5.06E-06	1.62E-05	4.21E-05	7.21E-05	9.22E-05	1.10E-04	1.29E-04
Thymus	4.36E+01	3.10E+01	1.95E+01	7.87E+00	2.69E+00	1.54E+00	1.67E+00	1.82E+00	1.67E+00	1.50E+00	1.38E+00	1.10E+00
Thyroid	0.0	6.40E-09	3.18E-05	3.18E-03	6.91E-03	8.52E-03	7.47E-03	7.01E-03	7.69E-03	7.54E-03	7.05E-03	5.26E-03
GB_Wall	0.0	0.0	1.93E-08	4.26E-05	5.84E-04	1.25E-03	1.50E-03	1.47E-03	1.60E-03	1.66E-03	1.70E-03	1.47E-03
Ht_Wall	6.65E-04	1.13E-02	3.33E-02	6.12E-02	5.61E-02	3.77E-02	3.12E-02	3.00E-02	2.78E-02	2.78E-02	2.55E-02	1.93E-02
Uterus	0.0	0.0	0.0	4.48E-08	1.01E-05	6.30E-05	1.28E-04	2.20E-04	2.78E-04	3.18E-04	3.51E-04	3.52E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Thyroid	Energy (MeV)												
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	0.0	0.0	0.0	1.32E-06	7.93E-05	3.84E-04	4.40E-04	5.60E-04	6.93E-04	7.30E-04	7.57E-04	7.01E-04
UB_Wall	0.0	0.0	0.0	0.0	0.0	1.09E-07	2.30E-06	8.49E-06	2.54E-05	4.75E-05	6.36E-05	7.81E-05	9.72E-05
Bone_Sur	9.91E-06	2.72E-04	2.85E-03	1.46E-02	2.16E-02	1.19E-02	6.64E-03	4.77E-03	4.48E-03	4.21E-03	3.95E-03	3.26E-03	
Brain	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03	
Breasts	0.0	0.0	4.83E-08	8.72E-05	6.19E-04	1.51E-03	1.53E-03	1.78E-03	2.01E-03	2.11E-03	2.15E-03	2.06E-03	
St_Wall	0.0	0.0	0.0	6.65E-07	4.41E-05	1.18E-04	2.77E-04	3.99E-04	4.83E-04	5.39E-04	5.64E-04	5.36E-04	
SI_Wall	0.0	0.0	0.0	3.64E-09	2.04E-06	1.95E-05	3.21E-05	5.95E-05	9.22E-05	1.18E-04	1.41E-04	1.33E-04	
ULI_Wall	0.0	0.0	0.0	6.60E-09	2.92E-06	2.49E-05	5.81E-05	1.20E-04	1.67E-04	1.99E-04	2.18E-04	2.34E-04	
LLI_Wall	0.0	0.0	0.0	5.01E-10	4.60E-07	5.71E-06	1.66E-05	4.08E-05	6.81E-05	8.67E-05	1.03E-04	1.21E-04	
Kidneys	0.0	0.0	0.0	1.02E-07	1.58E-05	9.12E-05	2.32E-04	3.73E-04	4.15E-04	4.20E-04	4.17E-04	3.99E-04	
Liver	0.0	0.0	0.0	1.13E-06	2.03E-04	3.67E-04	5.16E-04	6.15E-04	6.41E-04	6.54E-04	6.67E-04	7.29E-04	
ET1-bas	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03	
ET2-bas	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03	
LN-ET	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03	
BBi-bas	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03	
BBi-sec	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03	
bbe-sec	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03	
AI	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03	
LN-Th	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03	
Lng_Tiss	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03	
Lung_NP	0.0	6.03E-08	5.98E-05	1.03E-03	4.79E-03	6.73E-03	6.80E-03	7.03E-03	6.53E-03	6.39E-03	6.19E-03	4.99E-03	
Lung_TB	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03	
Lung_P	0.0	2.77E-08	3.52E-05	1.71E-03	4.61E-03	4.64E-03	4.09E-03	4.20E-03	3.96E-03	3.96E-03	3.80E-03	3.04E-03	
Muscle	3.00E-03	7.86E-03	1.16E-02	1.24E-02	8.60E-03	5.84E-03	5.55E-03	5.48E-03	5.12E-03	4.78E-03	4.49E-03	3.71E-03	
Ovaries	0.0	0.0	0.0	2.32E-10	4.18E-07	6.28E-06	1.94E-05	4.87E-05	8.13E-05	1.03E-04	1.21E-04	1.41E-04	
Pancreas	0.0	0.0	0.0	8.12E-07	5.87E-05	2.94E-04	4.69E-04	5.62E-04	6.51E-04	6.74E-04	6.71E-04	6.28E-04	
R_Marrow	1.19E-06	3.25E-05	3.40E-04	1.96E-03	3.86E-03	3.98E-03	3.86E-03	3.89E-03	3.64E-03	3.37E-03	3.17E-03	2.69E-03	
Skin	0.0	2.45E-05	5.08E-04	2.22E-03	2.45E-03	2.11E-03	2.27E-03	2.39E-03	2.49E-03	2.42E-03	2.28E-03	1.79E-03	
Spleen	0.0	0.0	0.0	4.52E-07	2.51E-04	3.51E-04	4.53E-04	5.52E-04	5.77E-04	5.74E-04	5.65E-04	5.32E-04	
Testes	0.0	0.0	0.0	0.0	1.12E-08	4.37E-07	2.19E-06	8.91E-06	2.04E-05	3.00E-05	3.95E-05	5.54E-05	
Thymus	0.0	6.40E-09	3.18E-05	3.18E-03	6.91E-03	8.52E-03	7.47E-03	7.01E-03	7.69E-03	7.54E-03	7.05E-03	5.26E-03	
Thyroid	4.23E+01	2.91E+01	1.81E+01	7.39E+00	2.54E+00	1.46E+00	1.58E+00	1.71E+00	1.62E+00	1.48E+00	1.36E+00	1.07E+00	
GB_Wall	0.0	0.0	0.0	1.47E-07	1.94E-05	9.88E-05	1.84E-04	2.95E-04	3.69E-04	4.05E-04	4.33E-04	4.24E-04	
Ht_Wall	0.0	0.0	0.0	1.20E-07	1.03E-04	1.00E-03	2.21E-03	2.27E-03	2.32E-03	2.33E-03	2.29E-03	2.03E-03	
Uterus	0.0	0.0	0.0	1.83E-10	3.63E-07	5.66E-06	1.78E-05	4.56E-05	7.71E-05	9.80E-05	1.16E-04	1.36E-04	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = GB_Cont	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	1.38E-06	3.76E-04	7.36E-03	1.82E-02	1.64E-02	1.52E-02	1.33E-02	1.23E-02	8.95E-03	8.88E-03	
UB_Wall	0.0	0.0	5.81E-08	8.90E-05	1.16E-03	1.88E-03	2.43E-03	2.76E-03	2.60E-03	2.39E-03	2.23E-03	
Bone_Sur	0.0	3.05E-07	9.86E-05	2.46E-03	8.29E-03	6.80E-03	3.98E-03	2.45E-03	2.33E-03	2.15E-03	2.01E-03	
Brain	0.0	0.0	0.0	5.77E-10	5.56E-07	4.34E-06	1.16E-05	4.22E-05	5.57E-05	6.97E-05	8.63E-05	
Breasts	0.0	0.0	5.02E-08	8.24E-05	7.37E-04	1.68E-03	1.65E-03	1.88E-03	2.05E-03	2.02E-03	1.97E-03	
St_Wall	0.0	6.23E-07	3.01E-04	6.78E-03	1.70E-02	1.54E-02	1.38E-02	1.25E-02	1.07E-02	1.05E-02	1.04E-02	
SI_Wall	1.21E-05	5.14E-04	4.78E-03	2.23E-02	3.07E-02	2.38E-02	2.09E-02	1.86E-02	1.65E-02	1.58E-02	1.51E-02	
ULI_Wall	1.30E-05	4.79E-03	2.40E-02	6.24E-02	5.95E-02	4.08E-02	3.48E-02	3.28E-02	2.89E-02	2.64E-02	2.46E-02	
LLI_Wall	0.0	0.0	1.37E-06	3.26E-04	2.02E-03	3.16E-03	2.58E-03	2.51E-03	2.86E-03	2.90E-03	2.80E-03	
Kidneys	0.0	2.66E-06	8.61E-04	1.30E-02	2.49E-02	2.12E-02	1.72E-02	1.74E-02	1.45E-02	1.30E-02	1.23E-02	
Liver	3.34E-04	9.48E-03	3.56E-02	7.06E-02	6.32E-02	4.29E-02	3.74E-02	3.51E-02	3.21E-02	2.92E-02	2.69E-02	
ET1-bas	0.0	0.0	0.0	1.09E-07	1.67E-05	9.02E-05	1.69E-05	2.91E-04	2.91E-04	3.62E-04	3.95E-04	
ET2-bas	0.0	0.0	0.0	1.09E-07	1.67E-05	9.02E-05	1.69E-05	2.91E-04	2.91E-04	3.62E-04	3.95E-04	
LN-ET	0.0	0.0	0.0	1.09E-07	1.67E-05	9.02E-05	1.69E-05	2.91E-04	2.91E-04	3.62E-04	3.95E-04	
BBi-bas	0.0	1.13E-08	1.39E-05	9.89E-04	2.90E-03	3.66E-03	3.27E-03	3.14E-03	3.01E-03	2.97E-03	2.48E-03	
BBi-sec	0.0	1.13E-08	1.39E-05	9.89E-04	2.90E-03	3.66E-03	3.27E-03	3.14E-03	3.01E-03	2.97E-03	2.48E-03	
bbe-sec	0.0	1.13E-08	1.39E-05	9.89E-04	2.90E-03	3.66E-03	3.27E-03	3.14E-03	3.01E-03	2.97E-03	2.48E-03	
AI	0.0	1.13E-08	1.39E-05	9.89E-04	2.90E-03	3.66E-03	3.27E-03	3.14E-03	3.01E-03	2.97E-03	2.48E-03	
LN-Th	0.0	1.13E-08	1.39E-05	9.89E-04	2.90E-03	3.66E-03	3.27E-03	3.14E-03	3.01E-03	2.97E-03	2.48E-03	
Lng_Tiss	0.0	1.13E-08	1.39E-05	9.89E-04	2.90E-03	3.66E-03	3.27E-03	3.14E-03	3.01E-03	2.97E-03	2.48E-03	
Lung_NP	0.0	0.0	0.0	1.09E-07	1.67E-05	9.02E-05	1.69E-05	2.91E-04	2.91E-04	3.62E-04	3.95E-04	
Lung_TB	0.0	1.13E-08	1.39E-05	9.89E-04	2.90E-03	3.66E-03	3.27E-03	3.14E-03	3.01E-03	2.97E-03	2.48E-03	
Lung_P	0.0	1.13E-08	1.39E-05	9.89E-04	2.90E-03	3.66E-03	3.27E-03	3.14E-03	3.01E-03	2.97E-03	2.48E-03	
Muscle	6.82E-04	3.62E-03	6.75E-03	9.12E-03	7.77E-03	5.84E-03	5.40E-03	5.26E-03	4.94E-03	4.64E-03	4.38E-03	
Ovaries	0.0	1.74E-10	4.75E-06	1.35E-03	4.60E-03	6.00E-03	4.90E-03	4.88E-03	4.56E-03	4.18E-03	3.95E-03	
Pancreas	1.55E-04	2.00E-03	1.23E-02	4.47E-02	5.03E-02	3.63E-02	3.04E-02	3.01E-02	2.35E-02	2.29E-02	2.27E-02	
R_Marrow	0.0	1.09E-06	4.52E-05	1.09E-03	3.94E-03	5.10E-03	5.12E-03	5.05E-03	4.72E-03	4.30E-03	4.03E-03	
Skin	7.73E-09	1.58E-06	6.91E-05	7.14E-04	1.51E-03	1.49E-03	1.59E-03	1.74E-03	1.86E-03	1.81E-03	1.74E-03	
Spleen	0.0	2.72E-10	5.59E-06	1.11E-03	4.95E-03	7.08E-03	6.02E-03	5.24E-03	5.50E-03	5.19E-03	4.85E-03	
Testes	0.0	0.0	1.41E-06	8.11E-05	2.79E-04	4.43E-04	6.12E-04	6.99E-04	7.43E-04	7.58E-04	7.03E-04	
Thymus	0.0	0.0	9.74E-09	3.19E-05	5.24E-04	6.55E-04	8.04E-04	1.01E-03	1.15E-03	1.22E-03	1.28E-03	
Thyroid	0.0	0.0	0.0	1.09E-07	1.67E-05	9.02E-05	1.69E-04	2.91E-04	3.62E-04	3.95E-04	4.17E-04	
GB_Wall	4.41E+00	5.35E+00	4.61E+00	2.44E+00	9.59E-01	5.42E-01	5.66E-01	5.74E-01	5.36E-01	4.88E-01	4.50E-01	
Ht_Wall	0.0	5.78E-09	1.13E-05	1.16E-03	4.23E-03	5.45E-03	4.93E-03	4.61E-03	4.32E-03	3.68E-03	3.07E-03	
Uterus	0.0	0.0	2.61E-06	8.93E-04	3.95E-03	6.01E-03	5.36E-03	4.87E-03	4.45E-03	4.21E-03	3.96E-03	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = GB_Wall	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	4.35E-06	7.37E-04	1.22E-02	1.81E-02	1.91E-02	1.62E-02	1.36E-02	1.27E-02	1.21E-02	1.16E-02	9.84E-03
UB_Wall	0.0	0.0	6.61E-08	8.74E-05	1.08E-03	1.84E-03	2.00E-03	1.95E-03	1.89E-03	1.85E-03	1.79E-03	1.79E-03
Bone_Sur	0.0	3.05E-07	9.86E-05	2.46E-03	8.29E-03	6.80E-03	3.98E-03	2.45E-03	2.33E-03	2.15E-03	2.01E-03	1.89E-03
Brain	0.0	0.0	0.0	7.64E-10	6.39E-07	4.75E-06	1.23E-05	3.09E-05	5.60E-05	7.78E-05	9.73E-05	1.63E-04
Breasts	0.0	0.0	7.75E-08	2.39E-04	9.62E-04	1.66E-03	1.66E-03	2.02E-03	2.02E-03	2.00E-03	1.98E-03	1.92E-03
St_Wall	0.0	1.18E-06	3.99E-04	7.34E-03	1.76E-02	1.62E-02	1.47E-02	1.24E-02	1.18E-02	1.02E-02	9.01E-03	7.47E-03
SI_Wall	7.35E-05	9.50E-04	5.83E-03	2.25E-02	2.93E-02	2.31E-02	2.01E-02	1.87E-02	1.64E-02	1.55E-02	1.46E-02	1.14E-02
ULI_Wall	3.83E-05	7.66E-03	3.06E-02	6.41E-02	5.54E-02	3.89E-02	3.47E-02	3.34E-02	2.88E-02	2.62E-02	2.43E-02	1.97E-02
LLI_Wall	0.0	0.0	1.52E-06	1.92E-04	1.79E-03	3.17E-03	2.42E-03	2.87E-03	2.71E-03	2.57E-03	2.49E-03	2.29E-03
Kidneys	0.0	4.42E-06	9.88E-04	1.30E-02	2.53E-02	2.16E-02	1.82E-02	1.77E-02	1.43E-02	1.38E-02	1.36E-02	1.12E-02
Liver	1.74E-03	1.84E-02	4.84E-02	7.98E-02	6.73E-02	4.51E-02	3.99E-02	3.74E-02	3.43E-02	3.06E-02	2.79E-02	2.34E-02
ET1-bas	0.0	0.0	0.0	1.47E-07	1.94E-05	1.94E-05	9.88E-05	1.84E-04	2.95E-04	3.69E-04	4.05E-04	4.33E-04
ET2-bas	0.0	0.0	0.0	1.47E-07	1.94E-05	9.88E-05	1.84E-04	2.95E-04	3.69E-04	4.05E-04	4.33E-04	4.24E-04
LN-ET	0.0	0.0	0.0	1.47E-07	1.94E-05	9.88E-05	1.84E-04	2.95E-04	3.69E-04	4.05E-04	4.33E-04	4.24E-04
BBi-bas	0.0	7.52E-08	3.08E-05	1.25E-03	3.81E-03	3.84E-03	3.60E-03	3.52E-03	3.52E-03	3.22E-03	3.17E-03	2.78E-03
BBi-sec	0.0	7.52E-08	3.08E-05	1.25E-03	3.81E-03	3.84E-03	3.60E-03	3.52E-03	3.52E-03	3.22E-03	3.17E-03	2.78E-03
bbe-sec	0.0	7.52E-08	3.08E-05	1.25E-03	3.81E-03	3.84E-03	3.60E-03	3.52E-03	3.52E-03	3.22E-03	3.17E-03	2.78E-03
AI	0.0	7.52E-08	3.08E-05	1.25E-03	3.81E-03	3.84E-03	3.60E-03	3.52E-03	3.52E-03	3.22E-03	3.17E-03	2.78E-03
LN-Th	0.0	7.52E-08	3.08E-05	1.25E-03	3.81E-03	3.84E-03	3.60E-03	3.52E-03	3.52E-03	3.22E-03	3.17E-03	2.78E-03
Lng_Tiss	0.0	7.52E-08	3.08E-05	1.25E-03	3.81E-03	3.84E-03	3.60E-03	3.52E-03	3.52E-03	3.22E-03	3.17E-03	2.78E-03
Lung_NP	0.0	0.0	0.0	1.47E-07	1.94E-05	9.88E-05	1.84E-03	3.60E-03	3.52E-03	3.22E-03	3.17E-03	2.78E-03
Lung_TB	0.0	7.52E-08	3.08E-05	1.25E-03	3.81E-03	3.84E-03	3.60E-03	3.52E-03	3.52E-03	3.22E-03	3.17E-03	2.78E-03
Lung_P	0.0	7.52E-08	3.08E-05	1.25E-03	3.81E-03	3.84E-03	3.60E-03	3.52E-03	3.52E-03	3.22E-03	3.17E-03	2.78E-03
Muscle	5.64E-03	8.45E-03	9.86E-03	1.02E-02	8.09E-03	6.02E-03	5.59E-03	5.47E-03	5.19E-03	4.91E-03	4.63E-03	3.82E-03
Ovaries	0.0	2.72E-10	5.34E-06	8.40E-04	4.73E-03	4.93E-03	4.99E-03	4.82E-03	4.55E-03	4.37E-03	4.23E-03	3.55E-03
Pancreas	7.71E-06	6.41E-03	2.83E-02	6.50E-02	5.80E-02	4.38E-02	3.50E-02	3.27E-02	2.81E-02	2.59E-02	2.43E-02	1.98E-02
R_Marrow	0.0	1.09E-06	4.52E-05	1.09E-03	3.94E-03	5.10E-03	5.12E-03	5.05E-03	4.72E-03	4.30E-03	4.03E-03	3.69E-03
Skin	3.43E-09	1.59E-06	1.23E-04	7.56E-04	1.53E-03	1.49E-03	1.58E-03	1.67E-03	1.75E-03	1.77E-03	1.76E-03	1.62E-03
Spleen	0.0	5.62E-10	8.04E-06	1.43E-03	5.65E-03	7.26E-03	5.88E-03	5.52E-03	5.45E-03	5.52E-03	5.42E-03	4.38E-03
Testes	0.0	0.0	0.0	1.37E-06	7.78E-05	2.71E-04	4.25E-04	5.86E-04	6.68E-04	6.88E-04	6.93E-04	6.86E-04
Thymus	0.0	0.0	1.93E-08	4.26E-05	5.84E-04	1.25E-03	1.50E-03	1.47E-03	1.60E-03	1.66E-03	1.70E-03	1.47E-03
Thyroid	0.0	0.0	0.0	1.47E-07	1.94E-05	9.88E-05	1.84E-04	2.95E-04	3.69E-04	4.05E-04	4.33E-04	4.24E-04
GB_Wall	4.57E+01	2.11E+01	1.13E+01	4.39E+00	1.56E+00	8.84E-01	9.43E-01	1.03E+00	9.81E-01	8.93E-01	8.09E-01	5.95E-01
Ht_Wall	0.0	1.98E-08	2.47E-05	1.56E-03	5.11E-03	6.50E-03	5.48E-03	5.87E-03	5.20E-03	4.94E-03	4.68E-03	3.50E-03
Uterus	0.0	0.0	2.97E-06	1.10E-03	3.87E-03	5.84E-03	5.62E-03	5.27E-03	5.51E-03	5.29E-03	4.94E-03	3.85E-03

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Ht_Cont	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	2.29E-07	2.37E-04	5.13E-03	1.39E-02	1.32E-02	1.20E-02	1.11E-02	1.03E-02	9.90E-03	9.39E-03	7.43E-03
UB_Wall	0.0	0.0	0.0	1.04E-07	1.56E-05	8.45E-05	1.52E-04	2.53E-04	3.18E-04	3.46E-04	3.62E-04	3.94E-04
Bone_Sur	5.82E-06	1.44E-04	1.40E-03	8.18E-03	1.51E-02	9.72E-03	5.37E-03	3.65E-03	3.27E-03	3.12E-03	2.99E-03	2.58E-03
Brain	0.0	0.0	0.0	5.18E-07	2.86E-05	1.20E-04	2.07E-04	3.13E-04	4.19E-04	4.75E-04	5.06E-04	5.50E-04
Breasts	0.0	1.04E-05	6.08E-04	7.30E-03	1.51E-02	1.23E-02	1.16E-02	1.20E-02	1.13E-02	1.09E-02	1.05E-02	8.61E-03
St_Wall	0.0	9.42E-06	5.99E-04	4.48E-03	9.54E-03	8.53E-03	7.91E-03	7.31E-03	7.13E-03	6.92E-03	6.58E-03	5.11E-03
SI_Wall	0.0	0.0	3.26E-09	1.59E-05	2.67E-04	7.52E-04	8.35E-04	1.05E-03	1.14E-03	1.15E-03	1.13E-03	1.04E-03
ULI_Wall	0.0	0.0	9.79E-09	2.94E-05	6.23E-04	9.63E-04	1.18E-03	1.29E-03	1.32E-03	1.33E-03	1.34E-03	1.39E-03
LLI_Wall	0.0	0.0	1.40E-10	2.05E-06	1.10E-04	1.75E-04	2.50E-04	3.46E-04	4.18E-04	4.63E-04	4.97E-04	5.89E-04
Kidneys	0.0	0.0	1.10E-06	3.44E-04	2.14E-03	3.33E-03	3.10E-03	3.37E-03	3.48E-03	3.41E-03	3.29E-03	2.87E-03
Liver	1.39E-06	7.73E-05	1.34E-03	8.82E-03	1.33E-02	1.14E-02	1.01E-02	9.24E-03	8.38E-03	8.02E-03	7.70E-03	6.46E-03
ET1-bas	0.0	0.0	1.27E-07	2.04E-04	1.45E-03	2.71E-03	2.40E-03	2.34E-03	2.23E-03	2.31E-03	2.38E-03	2.26E-03
ET2-bas	0.0	0.0	1.27E-07	2.04E-04	1.45E-03	2.71E-03	2.40E-03	2.34E-03	2.23E-03	2.31E-03	2.38E-03	2.26E-03
LN-ET	0.0	0.0	1.27E-07	2.04E-04	1.45E-03	2.71E-03	2.40E-03	2.34E-03	2.23E-03	2.31E-03	2.38E-03	2.26E-03
BBi-bas	1.15E-04	1.73E-03	1.18E-02	3.70E-02	3.67E-02	2.43E-02	2.10E-02	1.97E-02	1.80E-02	1.65E-02	1.53E-02	1.20E-02
BBi-sec	1.15E-04	1.73E-03	1.18E-02	3.70E-02	3.67E-02	2.43E-02	2.10E-02	1.97E-02	1.80E-02	1.65E-02	1.53E-02	1.20E-02
bbe-sec	1.15E-04	1.73E-03	1.18E-02	3.70E-02	3.67E-02	2.43E-02	2.10E-02	1.97E-02	1.80E-02	1.65E-02	1.53E-02	1.20E-02
AI	1.15E-04	1.73E-03	1.18E-02	3.70E-02	3.67E-02	2.43E-02	2.10E-02	1.97E-02	1.80E-02	1.65E-02	1.53E-02	1.20E-02
LN-Th	1.15E-04	1.73E-03	1.18E-02	3.70E-02	3.67E-02	2.43E-02	2.10E-02	1.97E-02	1.80E-02	1.65E-02	1.53E-02	1.20E-02
Lng_Tiss	1.15E-04	1.73E-03	1.18E-02	3.70E-02	3.67E-02	2.43E-02	2.10E-02	1.97E-02	1.80E-02	1.65E-02	1.53E-02	1.20E-02
Lung_NP	0.0	0.0	1.27E-07	2.04E-04	1.45E-03	2.71E-03	2.40E-03	2.34E-03	2.23E-03	2.31E-03	2.38E-03	2.26E-03
Lung_TB	1.15E-04	1.73E-03	1.18E-02	3.70E-02	3.67E-02	2.43E-02	2.10E-02	1.97E-02	1.80E-02	1.65E-02	1.53E-02	1.20E-02
Lung_P	1.15E-04	1.73E-03	1.18E-02	3.70E-02	3.67E-02	2.43E-02	2.10E-02	1.97E-02	1.80E-02	1.65E-02	1.53E-02	1.20E-02
Muscle	5.12E-05	8.16E-04	2.65E-03	5.47E-03	5.78E-03	4.51E-03	4.15E-03	4.01E-03	3.82E-03	3.60E-03	3.40E-03	2.89E-03
Ovaries	0.0	0.0	0.0	8.98E-07	6.05E-05	1.73E-04	3.08E-04	4.87E-04	6.20E-04	6.79E-04	7.02E-04	6.92E-04
Pancreas	0.0	5.91E-07	2.80E-04	5.89E-03	1.50E-02	1.39E-02	1.22E-02	1.10E-02	9.83E-03	9.55E-03	9.17E-03	7.01E-03
R_Marrow	1.86E-08	5.26E-05	4.81E-04	2.59E-03	5.17E-03	5.56E-03	5.42E-03	5.64E-03	5.02E-03	4.65E-03	4.41E-03	3.89E-03
Skin	2.45E-06	3.79E-05	2.65E-04	1.06E-03	1.80E-03	1.71E-03	1.70E-03	1.99E-03	2.04E-03	1.95E-03	1.84E-03	1.51E-03
Spleen	0.0	4.62E-09	1.38E-05	1.68E-03	5.40E-03	6.46E-03	5.72E-03	5.14E-03	4.88E-03	4.82E-03	4.74E-03	4.26E-03
Testes	0.0	0.0	0.0	2.07E-09	1.50E-06	1.56E-05	4.05E-05	8.71E-05	1.31E-04	1.61E-04	1.78E-04	1.99E-04
Thymus	3.58E-05	6.55E-03	2.90E-02	7.63E-02	6.87E-02	4.61E-02	4.14E-02	3.80E-02	3.66E-02	3.43E-02	3.17E-02	2.42E-02
Thyroid	0.0	0.0	1.27E-07	2.04E-04	1.45E-03	2.71E-03	2.40E-03	2.34E-03	2.23E-03	2.31E-03	2.38E-03	2.26E-03
GB_Wall	0.0	3.18E-09	9.59E-06	9.63E-04	4.07E-03	5.41E-03	4.76E-03	4.43E-03	4.36E-03	4.57E-03	4.12E-03	3.60E-03
Ht_Wall	1.81E-01	4.00E-01	5.22E-01	4.43E-01	2.38E-01	1.40E-01	1.34E-01	1.22E-01	1.11E-01	1.02E-01	8.25E-02	
Uterus	0.0	0.0	0.0	7.59E-07	5.47E-05	1.91E-04	3.23E-04	4.69E-04	5.73E-04	5.93E-04	6.62E-04	6.68E-04

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Ht_Wall	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	0.0	1.22E-06	3.32E-04	7.29E-03	1.68E-02	1.53E-02	1.29E-02	1.31E-02	1.13E-02	9.63E-03	7.79E-03	
UB_Wall	0.0	0.0	0.0	1.76E-07	2.09E-05	1.02E-04	1.22E-04	1.68E-04	2.24E-04	2.69E-04	3.08E-04	
Bone_Sur	5.82E-06	1.44E-04	1.40E-03	8.18E-03	1.51E-02	9.72E-03	5.37E-03	3.65E-03	3.27E-03	3.12E-03	2.99E-03	
Brain	0.0	0.0	0.0	3.99E-07	2.70E-05	8.97E-05	1.81E-04	2.98E-04	3.81E-04	4.29E-04	4.58E-04	
Breasts	9.09E-07	6.34E-05	1.29E-03	1.08E-02	1.66E-02	1.32E-02	1.29E-02	1.31E-02	1.27E-02	1.18E-02	1.10E-02	
St_Wall	3.85E-06	1.76E-04	2.64E-03	1.19E-02	1.67E-02	1.37E-02	1.19E-02	1.13E-02	1.10E-02	1.00E-02	9.35E-03	
SI_Wall	0.0	0.0	1.06E-08	2.69E-05	3.31E-04	9.83E-04	1.08E-03	1.30E-03	1.34E-03	1.34E-03	1.33E-03	
ULI_Wall	0.0	0.0	3.14E-08	4.97E-05	7.95E-04	1.22E-03	1.51E-03	1.50E-03	1.45E-03	1.46E-03	1.53E-03	
LLI_Wall	0.0	0.0	5.65E-10	4.09E-06	1.20E-04	2.05E-04	3.08E-04	4.42E-04	5.29E-04	5.74E-04	6.04E-04	
Kidneys	0.0	2.09E-10	2.93E-06	6.62E-04	2.72E-03	4.32E-03	3.76E-03	3.69E-03	3.83E-03	3.62E-03	3.44E-03	
Liver	5.31E-05	6.02E-04	3.37E-03	1.13E-02	1.46E-02	1.21E-02	1.10E-02	1.03E-02	9.73E-03	8.96E-03	8.31E-03	
ET1-bas	0.0	0.0	1.20E-07	1.03E-04	1.00E-03	2.21E-03	2.10E-03	2.27E-03	2.10E-03	2.32E-03	2.33E-03	
ET2-bas	0.0	0.0	1.20E-07	1.03E-04	1.00E-03	2.21E-03	2.10E-03	2.27E-03	2.10E-03	2.32E-03	2.33E-03	
LN-ET	0.0	0.0	1.20E-07	1.03E-04	1.00E-03	2.21E-03	2.10E-03	2.27E-03	2.10E-03	2.32E-03	2.33E-03	
BBi-bas	1.02E-04	3.73E-03	1.79E-02	3.89E-02	3.54E-02	2.29E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	
BBi-sec	1.02E-04	3.73E-03	1.79E-02	3.89E-02	3.54E-02	2.29E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	
bbe-sec	1.02E-04	3.73E-03	1.79E-02	3.89E-02	3.54E-02	2.29E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	
AI	1.02E-04	3.73E-03	1.79E-02	3.89E-02	3.54E-02	2.29E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	
LN-Th	1.02E-04	3.73E-03	1.79E-02	3.89E-02	3.54E-02	2.29E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	
Lng_Tiss	1.02E-04	3.73E-03	1.79E-02	3.89E-02	3.54E-02	2.29E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	
Lung_NP	0.0	0.0	1.20E-07	1.03E-04	1.00E-03	2.21E-03	2.10E-03	2.27E-03	2.10E-03	2.32E-03	2.33E-03	
Lung_TB	1.02E-04	3.73E-03	1.79E-02	3.89E-02	3.54E-02	2.29E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	
Lung_P	1.02E-04	3.73E-03	1.79E-02	3.89E-02	3.54E-02	2.29E-02	2.05E-02	1.90E-02	1.72E-02	1.58E-02	1.47E-02	
Muscle	1.38E-03	3.31E-03	5.08E-03	6.79E-03	6.19E-03	4.65E-03	4.33E-03	4.30E-03	4.07E-03	3.82E-03	3.59E-03	
Ovaries	0.0	0.0	0.0	1.54E-06	8.18E-05	2.35E-04	4.19E-04	5.77E-04	6.42E-04	6.74E-04	6.97E-04	
Pancreas	0.0	9.12E-06	1.14E-03	1.22E-02	2.29E-02	1.88E-02	1.61E-02	1.46E-02	1.39E-02	1.29E-02	1.20E-02	
R_Marrow	1.86E-08	5.26E-05	4.81E-04	2.59E-03	5.17E-03	5.56E-03	5.42E-03	5.64E-03	5.02E-03	4.65E-03	4.41E-03	
Skin	1.01E-05	9.27E-05	4.47E-04	1.38E-03	1.89E-03	1.79E-03	1.87E-03	2.01E-03	2.10E-03	1.96E-03	1.85E-03	
Spleen	0.0	5.23E-08	5.64E-05	2.91E-03	9.48E-03	9.02E-03	7.36E-03	7.00E-03	7.10E-03	6.53E-03	6.03E-03	
Testes	0.0	0.0	0.0	3.44E-09	2.00E-06	1.91E-05	4.77E-05	9.89E-05	1.46E-04	1.75E-04	1.95E-04	
Thymus	6.65E-04	1.13E-02	3.33E-02	6.12E-02	5.61E-02	3.77E-02	3.37E-02	3.12E-02	3.00E-02	2.78E-02	2.55E-02	
Thyroid	0.0	0.0	1.20E-07	1.03E-04	1.00E-03	2.21E-03	2.10E-03	2.27E-03	2.32E-03	2.33E-03	2.29E-03	
GB_Wall	0.0	1.98E-08	2.47E-05	1.56E-03	5.11E-03	6.50E-03	5.48E-03	5.87E-03	5.20E-03	4.94E-03	3.50E-03	
Ht_Wall	2.58E+00	1.91E+00	1.37E+00	7.33E-01	3.24E-01	1.91E-01	1.88E-01	1.95E-01	1.66E-01	1.54E-01	1.22E-01	
Uterus	0.0	0.0	0.0	1.27E-06	7.33E-05	2.05E-04	3.76E-04	6.15E-04	6.36E-04	6.46E-04	6.64E-04	

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Uterus	Energy (MeV)											
	Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000
Adrenals	0.0	0.0	1.54E-09	1.87E-05	3.74E-04	7.66E-04	1.17E-03	1.36E-03	1.35E-03	1.34E-03	1.30E-03	1.30E-03
UB_Wall	3.86E-05	1.21E-02	5.43E-02	1.26E-01	1.03E-01	6.65E-02	5.80E-02	5.51E-02	4.45E-02	4.15E-02	3.39E-02	3.39E-02
Bone_Sur	0.0	2.86E-07	1.04E-04	3.55E-03	1.00E-02	7.81E-03	4.48E-03	2.83E-03	2.47E-03	2.38E-03	2.30E-03	2.01E-03
Brain	0.0	0.0	0.0	0.0	0.0	1.30E-08	2.81E-07	1.24E-06	5.14E-06	1.34E-05	2.17E-05	3.04E-05
Breasts	0.0	0.0	0.0	0.0	0.0	1.32E-07	1.95E-05	9.01E-05	1.88E-04	3.31E-04	4.14E-04	4.36E-04
St_Wall	0.0	0.0	0.0	0.0	0.0	5.51E-07	1.45E-04	1.49E-03	2.78E-03	2.70E-03	2.86E-03	3.15E-03
SI_Wall	1.49E-06	2.07E-03	1.98E-02	6.14E-02	6.36E-02	4.44E-02	3.83E-02	3.42E-02	3.14E-02	2.88E-02	2.66E-02	2.09E-02
ULI_Wall	5.62E-08	2.25E-05	1.59E-03	1.40E-02	2.74E-02	2.22E-02	1.92E-02	1.67E-02	1.57E-02	1.46E-02	1.35E-02	1.05E-02
LLI_Wall	0.0	1.46E-05	1.75E-03	1.77E-02	3.30E-02	2.57E-02	2.28E-02	1.99E-02	1.76E-02	1.56E-02	1.44E-02	1.29E-02
Kidneys	0.0	0.0	4.98E-07	2.12E-04	1.70E-03	3.17E-03	3.15E-03	3.29E-03	3.45E-03	3.28E-03	3.10E-03	2.75E-03
Liver	0.0	0.0	8.36E-08	5.83E-05	8.61E-04	1.62E-03	1.65E-03	1.73E-03	1.82E-03	1.91E-03	1.93E-03	1.77E-03
ET1-bas	0.0	0.0	0.0	0.0	0.0	1.83E-10	3.63E-07	5.66E-06	1.78E-05	4.56E-05	7.71E-05	9.80E-05
ET2-bas	0.0	0.0	0.0	0.0	0.0	1.83E-10	3.63E-07	5.66E-06	1.78E-05	4.56E-05	7.71E-05	9.80E-05
LN-ET	0.0	0.0	0.0	0.0	0.0	1.83E-10	3.63E-07	5.66E-06	1.78E-05	4.56E-05	7.71E-05	9.80E-05
BBi-bas	0.0	0.0	0.0	0.0	0.0	1.11E-06	5.68E-05	1.57E-04	2.69E-04	3.72E-04	4.33E-04	4.65E-04
BBi-sec	0.0	0.0	0.0	0.0	0.0	1.11E-06	5.68E-05	1.57E-04	2.69E-04	3.72E-04	4.33E-04	4.65E-04
bbe-sec	0.0	0.0	0.0	0.0	0.0	1.11E-06	5.68E-05	1.57E-04	2.69E-04	3.72E-04	4.33E-04	4.65E-04
AI	0.0	0.0	0.0	0.0	0.0	1.11E-06	5.68E-05	1.57E-04	2.69E-04	3.72E-04	4.33E-04	4.65E-04
LN-Th	0.0	0.0	0.0	0.0	0.0	1.11E-06	5.68E-05	1.57E-04	2.69E-04	3.72E-04	4.33E-04	4.65E-04
Lng_Tiss	0.0	0.0	0.0	0.0	0.0	1.11E-06	5.68E-05	1.57E-04	2.69E-04	3.72E-04	4.33E-04	4.65E-04
Lung_NP	0.0	0.0	0.0	0.0	0.0	1.83E-10	3.63E-07	5.66E-06	1.57E-04	2.69E-04	3.72E-04	4.33E-04
Lung_TB	0.0	0.0	0.0	0.0	0.0	1.11E-06	5.68E-05	1.57E-04	2.69E-04	3.72E-04	4.33E-04	4.65E-04
Lung_P	0.0	0.0	0.0	0.0	0.0	1.11E-06	5.68E-05	1.57E-04	2.69E-04	3.72E-04	4.33E-04	4.65E-04
Muscle	1.45E-03	4.37E-03	7.86E-03	1.09E-02	9.77E-03	7.34E-03	6.73E-03	6.53E-03	6.10E-03	5.69E-03	5.35E-03	4.44E-03
Ovaries	2.06E-08	3.43E-03	3.91E-02	1.35E-01	1.24E-01	8.46E-02	6.81E-02	6.33E-02	5.64E-02	5.44E-02	5.12E-02	3.43E-02
Pancreas	0.0	0.0	2.38E-08	6.24E-05	9.51E-04	1.67E-03	2.10E-03	2.02E-03	1.99E-03	2.02E-03	1.90E-03	1.90E-03
R_Marrow	4.41E-09	1.223E-06	6.67E-05	2.11E-03	6.28E-03	7.13E-03	6.68E-03	6.71E-03	5.79E-03	5.35E-03	5.08E-03	4.35E-03
Skin	0.0	2.52E-07	4.40E-05	5.86E-04	1.37E-03	1.54E-03	1.53E-03	1.73E-03	1.85E-03	1.83E-03	1.78E-03	1.55E-03
Spleen	0.0	0.0	1.03E-08	3.76E-05	5.86E-04	1.18E-03	1.44E-03	1.58E-03	1.78E-03	1.84E-03	1.82E-03	1.62E-03
Testes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thymus	0.0	0.0	0.0	4.48E-08	1.01E-05	6.30E-05	1.28E-04	2.20E-04	2.78E-04	3.18E-04	3.51E-04	3.52E-04
Thyroid	0.0	0.0	0.0	1.83E-10	3.63E-07	5.66E-06	1.78E-05	4.56E-05	7.71E-05	9.80E-05	1.16E-04	1.36E-04
GB_Wall	0.0	0.0	2.97E-06	1.10E-03	3.87E-03	5.84E-03	5.62E-03	5.27E-03	5.51E-03	5.29E-03	4.94E-03	3.85E-03
Ht_Wall	0.0	0.0	0.0	1.27E-06	7.33E-05	2.05E-04	3.76E-04	5.46E-04	6.15E-04	6.36E-04	6.46E-04	6.46E-04
Uterus	1.16E+01	9.59E+00	6.91E+00	3.31E+00	1.25E+00	7.27E-01	7.50E-01	7.69E-01	7.15E-01	6.51E-01	5.97E-01	4.77E-01

Specific Absorbed Fraction of Photon Energy in kg⁻¹: Recommended Values for the Adult Male

Source = Body_Tiss	Energy (MeV)											
Target	0.010	0.015	0.020	0.030	0.050	0.100	0.200	0.500	1.000	1.500	2.000	4.000
Adrenals	1.45E-02	1.45E-02	1.39E-02	1.21E-02	9.43E-03	7.07E-03	6.69E-03	6.47E-03	6.06E-03	5.67E-03	5.35E-03	4.49E-03
UB_Wall	1.21E-02	1.06E-02	9.63E-03	8.79E-03	7.58E-03	6.19E-03	5.95E-03	5.82E-03	5.46E-03	5.10E-03	4.79E-03	4.02E-03
Bone_Sur	1.94E-02	2.32E-02	2.71E-02	3.20E-02	2.74E-02	1.34E-02	7.91E-03	6.15E-03	5.67E-03	5.30E-03	4.97E-03	4.14E-03
Brain	1.45E-02	1.45E-02	1.39E-02	1.18E-02	7.75E-03	4.75E-03	4.40E-03	4.37E-03	4.10E-03	3.82E-03	3.58E-03	2.95E-03
Breasts	1.44E-02	1.35E-02	1.12E-02	7.59E-03	4.71E-03	3.42E-03	3.54E-03	3.80E-03	3.72E-03	3.51E-03	3.32E-03	2.79E-03
St_Wall	1.34E-02	1.19E-02	1.06E-02	9.19E-03	7.44E-03	5.83E-03	5.65E-03	5.55E-03	5.21E-03	4.87E-03	4.59E-03	3.86E-03
SI_Wall	1.41E-02	1.33E-02	1.21E-02	1.06E-02	8.80E-03	6.94E-03	6.60E-03	6.35E-03	5.99E-03	5.56E-03	5.21E-03	4.37E-03
ULI_Wall	1.30E-02	1.12E-02	9.92E-03	9.12E-03	7.96E-03	6.32E-03	6.08E-03	5.87E-03	5.50E-03	5.15E-03	4.85E-03	4.04E-03
LLI_Wall	1.33E-02	1.20E-02	1.10E-02	1.04E-02	8.78E-03	6.80E-03	6.43E-03	6.23E-03	5.84E-03	5.44E-03	5.12E-03	4.26E-03
Kidneys	1.45E-02	1.45E-02	1.37E-02	1.11E-02	8.12E-03	6.19E-03	5.99E-03	5.93E-03	5.61E-03	5.27E-03	4.97E-03	4.19E-03
Liver	1.45E-02	1.45E-02	1.38E-02	1.17E-02	8.55E-03	6.35E-03	6.08E-03	6.03E-03	5.67E-03	5.30E-03	4.98E-03	4.17E-03
ET1-bas	1.45E-02	1.45E-02	1.38E-02	1.17E-02	8.43E-03	5.98E-03	5.66E-03	5.57E-03	5.24E-03	4.90E-03	4.60E-03	3.79E-03
ET2-bas	1.45E-02	1.45E-02	1.38E-02	1.17E-02	8.43E-03	5.98E-03	5.66E-03	5.57E-03	5.24E-03	4.90E-03	4.60E-03	3.79E-03
LN-ET	1.45E-02	1.45E-02	1.38E-02	1.17E-02	8.43E-03	5.98E-03	5.66E-03	5.57E-03	5.24E-03	4.90E-03	4.60E-03	3.79E-03
BBi-bas	1.45E-02	1.45E-02	1.43E-02	1.29E-02	9.13E-03	6.03E-03	5.38E-03	5.21E-03	4.87E-03	4.54E-03	4.24E-03	3.46E-03
BBi-sec	1.45E-02	1.45E-02	1.43E-02	1.29E-02	9.13E-03	6.03E-03	5.38E-03	5.21E-03	4.87E-03	4.54E-03	4.24E-03	3.46E-03
bbe-sec	1.45E-02	1.45E-02	1.43E-02	1.29E-02	9.13E-03	6.03E-03	5.38E-03	5.21E-03	4.87E-03	4.54E-03	4.24E-03	3.46E-03
AI	1.45E-02	1.45E-02	1.43E-02	1.29E-02	9.13E-03	6.03E-03	5.38E-03	5.21E-03	4.87E-03	4.54E-03	4.24E-03	3.46E-03
LN-Th	1.45E-02	1.45E-02	1.43E-02	1.29E-02	9.13E-03	6.03E-03	5.38E-03	5.21E-03	4.87E-03	4.54E-03	4.24E-03	3.46E-03
Lng_Tiss	1.45E-02	1.45E-02	1.43E-02	1.29E-02	9.13E-03	6.03E-03	5.38E-03	5.21E-03	4.87E-03	4.54E-03	4.24E-03	3.46E-03
Lung_NP	1.45E-02	1.45E-02	1.43E-02	1.29E-02	8.43E-03	5.98E-03	5.66E-03	5.57E-03	5.21E-03	4.87E-03	4.54E-03	4.24E-03
Lung_TB	1.45E-02	1.45E-02	1.43E-02	1.29E-02	9.13E-03	6.03E-03	5.38E-03	5.21E-03	4.87E-03	4.54E-03	4.24E-03	3.46E-03
Lung_P	1.45E-02	1.45E-02	1.43E-02	1.29E-02	9.13E-03	6.03E-03	5.38E-03	5.21E-03	4.87E-03	4.54E-03	4.24E-03	3.46E-03
Muscle	1.44E-02	1.37E-02	1.24E-02	9.86E-03	6.71E-03	4.97E-03	4.94E-03	5.04E-03	4.83E-03	4.55E-03	4.27E-03	3.54E-03
Ovaries	1.45E-02	1.43E-02	1.32E-02	1.14E-02	9.34E-03	7.27E-03	6.85E-03	6.63E-03	6.17E-03	5.74E-03	5.39E-03	4.53E-03
Pancreas	1.45E-02	1.45E-02	1.38E-02	1.21E-02	9.79E-03	7.50E-03	7.06E-03	6.81E-03	6.34E-03	5.90E-03	5.53E-03	4.60E-03
R_Marrow	3.75E-03	4.42E-03	5.00E-03	5.76E-03	5.97E-03	5.53E-03	5.60E-03	5.68E-03	5.15E-03	4.74E-03	4.45E-03	3.77E-03
Skin	1.18E-02	9.65E-03	8.02E-03	5.85E-03	3.97E-03	2.99E-03	3.07E-03	3.36E-03	3.27E-03	3.10E-03	2.95E-03	2.54E-03
Spleen	1.45E-02	1.45E-02	1.39E-02	1.17E-02	8.47E-03	6.21E-03	5.99E-03	5.95E-03	5.59E-03	5.24E-03	4.93E-03	4.09E-03
Testes	1.45E-02	1.41E-02	1.24E-02	9.09E-03	6.26E-03	4.86E-03	4.92E-03	5.07E-03	4.84E-03	4.56E-03	4.31E-03	3.64E-03
Thymus	1.45E-02	1.45E-02	1.37E-02	1.11E-02	7.99E-03	5.81E-03	5.61E-03	5.59E-03	5.29E-03	4.96E-03	4.66E-03	3.88E-03
Thyroid	1.45E-02	1.45E-02	1.38E-02	1.17E-02	8.43E-03	5.98E-03	5.66E-03	5.57E-03	5.24E-03	4.90E-03	4.60E-03	3.79E-03
GB_Wall	1.10E-02	1.02E-02	1.01E-02	9.97E-03	8.66E-03	6.89E-03	6.53E-03	6.30E-03	5.51E-03	5.17E-03	4.30E-03	
Ht_Wall	1.45E-02	1.45E-02	1.39E-02	1.21E-02	9.14E-03	6.74E-03	6.41E-03	6.30E-03	5.89E-03	5.14E-03	4.28E-03	
Uterus	1.45E-02	1.45E-02	1.37E-02	1.17E-02	9.38E-03	7.39E-03	7.06E-03	6.80E-03	6.34E-03	5.90E-03	5.53E-03	4.60E-03

APPENDIX B

**TABLES OF SPECIFIC ABSORBED FRACTIONS—
RAW DATA AND RECOMMENDED VALUES**

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