

Appendix A

some constants

electron charge, $e = 1,602 \cdot 10^{-19} \text{ C}$

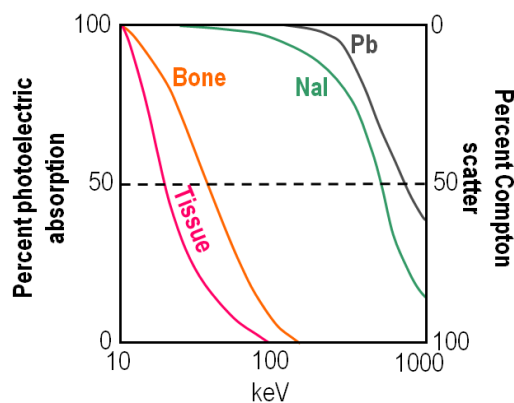
Planck's constant, $h = 6,626 \cdot 10^{-34} \text{ Js}$

Avogadro's number, $N_A = 6,022 \cdot 10^{23} \text{ mol}^{-1}$

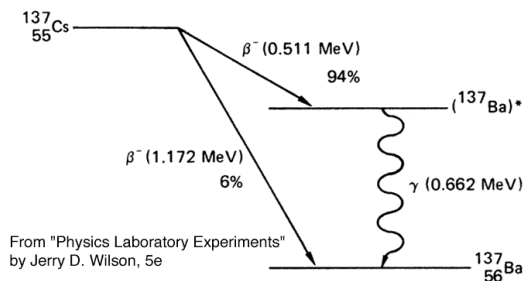
Curie (unit for activity) $Ci = 3,7 \cdot 10^{10} \text{ Bq}$

(1 Bq = 1 decay/s)

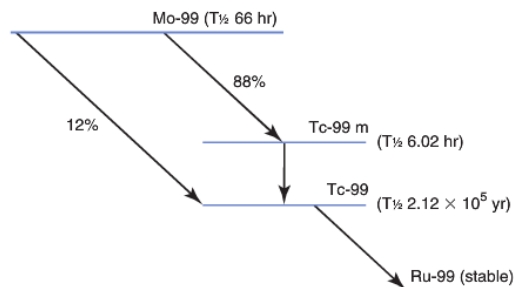
För räkning utan miniräknare avrunda ovanstående till 1 värdesiffra och anta $e \approx \pi \approx 3$ (med e avses här talet $e = 2.7182\dots$).



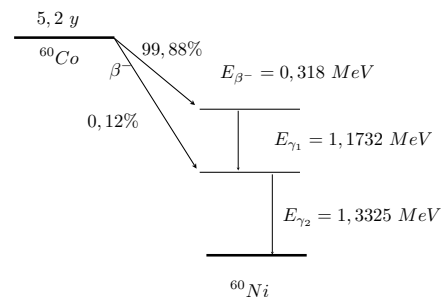
(a) Compton vs PE som funktion av fotonernas energi i olika material.



(b) Decay scheme för ^{137}Cs .



(c) Decay scheme för ^{99}Mo .



(d) Decay scheme för ^{60}Co .

X-Ray Mass Attenuation Coefficients

Table 1. Material constants assumed in the present evaluations for elemental media. Values are given for the ratio of atomic number-to-mass Z/A , the mean excitation energy I , and the density ρ . Some density values are only nominal; those for $Z = 85$ and 87 were arbitrarily set to 10 in order to complete the calculations.

Z	Element	Z/A	I (eV)	Density (g/cm ³)
1 H	Hydrogen	0.99212	19.2	8.375E-05
2 He	Helium	0.49968	41.8	1.663E-04
3 Li	Lithium	0.43221	40.0	5.340E-01
4 Be	Beryllium	0.44384	63.7	1.848E+00
5 B	Boron	0.46245	76.0	2.370E+00
6 C	Carbon, Graphite	0.49954	78.0	1.700E+00
7 N	Nitrogen	0.49976	82.0	1.165E-03
8 O	Oxygen	0.50002	95.0	1.332E-03
9 F	Fluorine	0.47372	115.0	1.580E-03
10 Ne	Neon	0.49555	137.0	8.385E-04
11 Na	Sodium	0.47847	149.0	9.710E-01
12 Mg	Magnesium	0.49373	156.0	1.740E+00
13 Al	Aluminum	0.48181	166.0	2.699E+00
14 Si	Silicon	0.49848	173.0	2.330E+00
15 P	Phosphorus	0.48428	173.0	2.200E+00
16 S	Sulfur	0.49897	180.0	2.000E+00
17 Cl	Chlorine	0.47951	174.0	2.995E-03
18 Ar	Argon	0.45059	188.0	1.662E-03
19 K	Potassium	0.48595	190.0	8.620E-01
20 Ca	Calcium	0.49903	191.0	1.550E+00
21 Sc	Scandium	0.46712	216.0	2.989E+00
22 Ti	Titanium	0.45948	233.0	4.540E+00
23 V	Vanadium	0.45150	245.0	6.110E+00
24 Cr	Chromium	0.46157	257.0	7.180E+00
25 Mn	Manganese	0.45506	272.0	7.440E+00
26 Fe	Iron	0.46556	286.0	7.874E+00
27 Co	Cobalt	0.45815	297.0	8.900E+00

28	Ni	Nickel	0.47708	311.0	8.902E+00
29	Cu	Copper	0.45636	322.0	8.960E+00
30	Zn	Zinc	0.45879	330.0	7.133E+00
31	Ga	Gallium	0.44462	334.0	5.904E+00
32	Ge	Germanium	0.44071	350.0	5.323E+00
33	As	Arsenic	0.44046	347.0	5.730E+00
34	Se	Selenium	0.43060	348.0	4.500E+00
35	Br	Bromine	0.43803	343.0	7.072E-03
36	Kr	Krypton	0.42959	352.0	3.478E-03
37	Rb	Rubidium	0.43291	363.0	1.532E+00
38	Sr	Strontium	0.43369	366.0	2.540E+00
39	Y	Yttrium	0.43867	379.0	4.469E+00
40	Zr	Zirconium	0.43848	393.0	6.506E+00
41	Nb	Niobium	0.44130	417.0	8.570E+00
42	Mo	Molybdenum	0.43777	424.0	1.022E+01
43	Tc	Technetium	0.43919	428.0	1.150E+01
44	Ru	Ruthenium	0.43534	441.0	1.241E+01
45	Rh	Rhodium	0.43729	449.0	1.241E+01
46	Pd	Palladium	0.43225	470.0	1.202E+01
47	Ag	Silver	0.43572	470.0	1.050E+01
48	Cd	Cadmium	0.42700	469.0	8.650E+00
49	In	Indium	0.42676	488.0	7.310E+00
50	Sn	Tin	0.42120	488.0	7.310E+00
51	Sb	Antimony	0.41889	487.0	6.691E+00
52	Te	Tellurium	0.40752	485.0	6.240E+00
53	I	Iodine	0.41764	491.0	4.930E+00
54	Xe	Xenon	0.41130	482.0	5.485E-03
55	Cs	Cesium	0.41383	488.0	1.873E+00
56	Ba	Barium	0.40779	491.0	3.500E+00
57	La	Lanthanum	0.41035	501.0	6.154E+00
58	Ce	Cerium	0.41395	523.0	6.657E+00
59	Pr	Praseodymium	0.41871	535.0	6.710E+00
60	Nd	Neodymium	0.41597	546.0	6.900E+00
61	Pm	Promethium	0.42094	560.0	7.220E+00
62	Sm	Samarium	0.41234	574.0	7.460E+00
63	Eu	Europium	0.41457	580.0	5.243E+00
64	Gd	Gadolinium	0.40699	591.0	7.900E+00

65	Tb	Terbium	0.40900	614.0	8.229E+00
66	Dy	Dysprosium	0.40615	628.0	8.550E+00
67	Ho	Holmium	0.40623	650.0	8.795E+00
68	Er	Erbium	0.40655	658.0	9.066E+00
69	Tm	Thulium	0.40844	674.0	9.321E+00
70	Yb	Ytterbium	0.40453	684.0	6.730E+00
71	Lu	Lutetium	0.40579	694.0	9.840E+00
72	Hf	Hafnium	0.40338	705.0	1.331E+01
73	Ta	Tantalum	0.40343	718.0	1.665E+01
74	W	Tungsten	0.40250	727.0	1.930E+01
75	Re	Rhenium	0.40278	736.0	2.102E+01
76	Os	Osmium	0.39958	746.0	2.257E+01
77	Ir	Iridium	0.40058	757.0	2.242E+01
78	Pt	Platinum	0.39984	790.0	2.145E+01
79	Au	Gold	0.40108	790.0	1.932E+01
80	Hg	Mercury	0.39882	800.0	1.355E+01
81	Tl	Thallium	0.39631	810.0	1.172E+01
82	Pb	Lead	0.39575	823.0	1.135E+01
83	Bi	Bismuth	0.39717	823.0	9.747E+00
84	Po	Polonium	0.40195	830.0	9.320E+00
85	At	Astatine	0.40479	825.0	1.000E+01
86	Rn	Radon	0.38736	794.0	9.066E-03
87	Fr	Francium	0.39010	827.0	1.000E+01
88	Ra	Radium	0.38934	826.0	5.000E+00
89	Ac	Actinium	0.39202	841.0	1.007E+01
90	Th	Thorium	0.38787	847.0	1.172E+01
91	Pa	Protactinium	0.39388	878.0	1.537E+01
92	U	Uranium	0.38651	890.0	1.895E+01

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X-Ray Mass Attenuation Coefficients

Table 2. Material constants and composition assumed in the present evaluations for compounds and mixtures. The compositions of various human tissues was taken from [ICRU Report 44](#) (1989). Values are given for the mean ratio of atomic number-to-mass Z/A , the mean excitation energy I , and the density ρ . Some density values are only nominal.

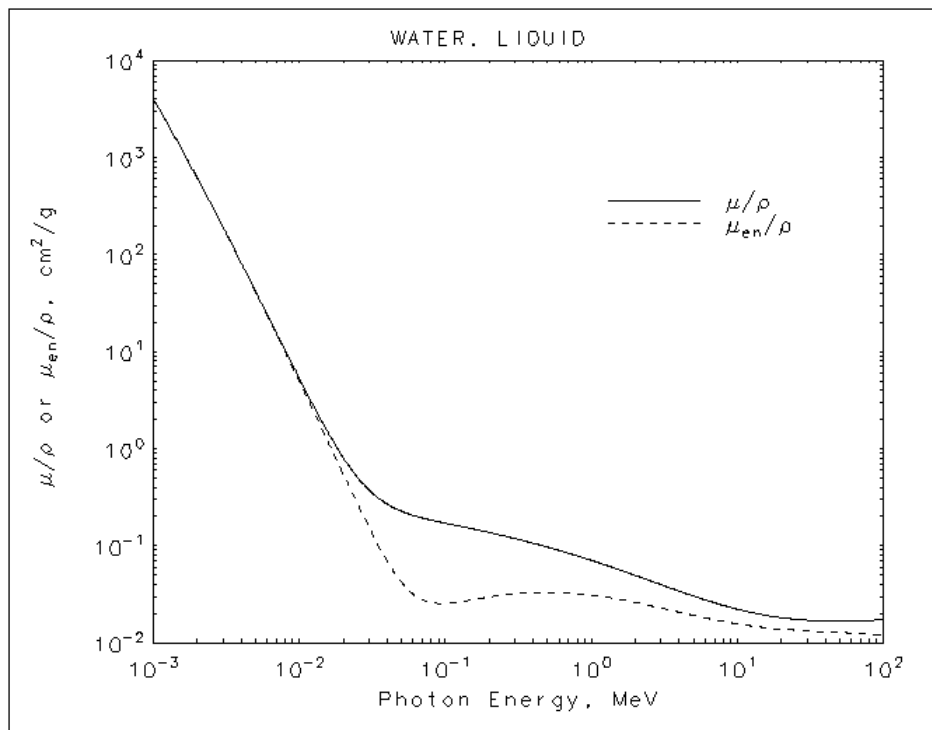
Material	$\langle Z/A \rangle$	I (eV)	Density (g/cm ³)	Composition (Z: fraction by weight)
A-150 Tissue-Equivalent Plastic	0.54903	65.1	1.127E+00	1: 0.101330 6: 0.775498 7: 0.035057 8: 0.052315 9: 0.017423 20: 0.018377
Adipose Tissue (ICRU-44)	0.55579	64.8	9.500E-01	1: 0.114000 6: 0.598000 7: 0.007000 8: 0.278000 11: 0.001000 16: 0.001000 17: 0.001000
Air, Dry (near sea level)	0.49919	85.7	1.205E-03	6: 0.000124 7: 0.755268 8: 0.231781 18: 0.012827
Alanine	0.53876	71.9	1.424E+00	1: 0.079192 6: 0.404437 7: 0.157213 8: 0.359157
B-100 Bone-Equivalent Plastic	0.52740	85.9	1.450E+00	1: 0.065473 6: 0.536942 7: 0.021500 8: 0.032084 9: 0.167415 20: 0.176585
Bakelite	0.52792	72.4	1.250E+00	1: 0.057444 6: 0.774589 8: 0.167968
Blood, Whole (ICRU-44)	0.54999	75.2	1.060E+00	1: 0.102000 6: 0.110000 7: 0.033000 8: 0.745000 11: 0.001000 15: 0.001000 16: 0.002000 17: 0.003000 19: 0.002000

				26: 0.001000						20: 0.042951
Bone, Cortical (ICRU-44)	0.51478	112.0	1.920E+00	1: 0.034000		Concrete, Barite (TYPE BA)	0.45714	248.2	3.350E+00	26: 0.006435
				6: 0.155000						1: 0.003585
				7: 0.042000						8: 0.311622
				8: 0.435000						12: 0.001195
				11: 0.001000						13: 0.004183
				12: 0.002000						14: 0.010457
				15: 0.103000						16: 0.107858
				16: 0.003000						20: 0.050194
				20: 0.225000						26: 0.047505
Brain, Grey/White Matter (ICRU-44)	0.55239	73.9	1.040E+00	1: 0.107000		Eye Lens (ICRU-44)	0.54709	74.3	1.070E+00	56: 0.463400
				6: 0.145000						1: 0.096000
				7: 0.022000						6: 0.195000
				8: 0.712000						7: 0.057000
				11: 0.002000						8: 0.646000
				15: 0.004000						11: 0.001000
				16: 0.002000						15: 0.001000
				17: 0.003000						16: 0.003000
				19: 0.003000						17: 0.001000
Breast Tissue (ICRU-44)	0.55196	70.3	1.020E+00	1: 0.106000		Ferrous Sulfate Standard Fricke	0.55334	76.3	1.024E+00	1: 0.108376
				6: 0.332000						8: 0.878959
				7: 0.030000						11: 0.000022
				8: 0.527000						16: 0.012553
				11: 0.001000						17: 0.000035
				15: 0.001000						26: 0.000055
				16: 0.002000		Gadolinium Oxysulfide	0.42265	493.3	7.440E+00	8: 0.084527
				17: 0.001000						16: 0.084704
C-552 Air-equivalent Plastic	0.49969	86.8	1.760E+00	1: 0.024681		Gafchromic Sensor	0.54384	67.2	1.300E+00	64: 0.830769
				6: 0.501610						1: 0.089700
				8: 0.004527						6: 0.605800
				9: 0.465209						7: 0.112200
				14: 0.003973						8: 0.192300
Cadmium Telluride	0.41665	539.3	6.200E+00	48: 0.468358		Gallium Arsenide	0.44246	384.9	5.310E+00	31: 0.482030
				52: 0.531642						33: 0.517970
Calcium Fluoride	0.48671	166.0	3.180E+00	9: 0.486672		Glass, Borosilicate (Pyrex)	0.49707	134.0	2.230E+00	5: 0.040066
				20: 0.513328						8: 0.539559
Calcium Sulfate	0.49948	152.3	2.960E+00	8: 0.470081						11: 0.028191
				16: 0.235534						13: 0.011644
				20: 0.294385						14: 0.377220
15 mmol L-1 Ceric Ammonium Sulfate Solution	0.55282	76.7	1.030E+00	1: 0.107694		Glass, Lead	0.42101	526.4	6.220E+00	19: 0.003321
				7: 0.000816						8: 0.156453
				8: 0.875172						14: 0.080866
				16: 0.014279						22: 0.008092
				58: 0.002040						33: 0.002651
Cesium Iodide	0.41569	553.1	4.510E+00	53: 0.488451						82: 0.751938
				55: 0.511549		Lithium Fluoride	0.46262	94.0	2.635E+00	3: 0.267585
Concrete, Ordinary	0.50932	124.5	2.300E+00	1: 0.022100						9: 0.732415
				6: 0.002484		Lithium Tetraborate	0.48485	94.6	2.440E+00	3: 0.082081
				8: 0.574930						5: 0.255715
				11: 0.015208						8: 0.662204
				12: 0.001266		Lung Tissue (ICRU-44)	0.55048	75.2	1.050E+00	1: 0.103000
				13: 0.019953						6: 0.105000
				14: 0.304627						7: 0.031000
				19: 0.010045						8: 0.710000

				0.000000
				11: 0.002000
				15: 0.002000
				16: 0.003000
				17: 0.003000
				19: 0.002000
Magnesium Tetroborate	0.49012	108.3	2.530E+00	5: 0.240870
				8: 0.623762
				12: 0.135367
Mercuric Iodide	0.40933	684.5	6.360E+00	53: 0.558560
				80: 0.441440
Muscle, Skeletal (ICRU-44)	0.55000	74.6	1.050E+00	1: 0.102000
				6: 0.143000
				7: 0.034000
				8: 0.710000
				11: 0.001000
				15: 0.002000
				16: 0.003000
				17: 0.001000
				19: 0.004000
Ovary (ICRU-44)	0.55149	75.0	1.050E+00	1: 0.105000
				6: 0.093000
				7: 0.024000
				8: 0.768000
				11: 0.002000
				15: 0.002000
				16: 0.002000
				17: 0.002000
				19: 0.002000
Photographic Emulsion (Kodak Type AA)	0.48176	179.0	2.200E+00	1: 0.030500
				6: 0.210700
				7: 0.072100
				8: 0.163200
				35: 0.222800
				47: 0.300700
Photographic Emulsion (Standard Nuclear)	0.45453	331.0	3.815E+00	1: 0.014100
				6: 0.072261
				7: 0.019320
				8: 0.066101
				16: 0.001890
				35: 0.349104
				47: 0.474105
				53: 0.003120
Plastic Scintillator, Vinyltoluene	0.54141	64.7	1.032E+00	1: 0.085000
				6: 0.915000
Polyethylene	0.57033	57.4	9.300E-01	1: 0.143716
				6: 0.856284
Polyethylene Terephthalate, (Mylar)	0.52037	78.7	1.380E+00	1: 0.041960
				6: 0.625016
				8: 0.333024
Polymethyl Methacrylate	0.53937	74.0	1.190E+00	1: 0.080541
				6: 0.599846
				8: 0.319613
Polystyrene	0.53768	68.7	1.060E+00	1: 0.077421

				6: 0.922579
Polytetrafluoroethylene, (Teflon)	0.47993	99.1	2.250E+00	6: 0.240183
				9: 0.759818
Polyvinyl Chloride	0.51201	108.2	1.406E+00	1: 0.048382
				6: 0.384361
				17: 0.567257
Radiochromic Dye Film, Nylon Base	0.54987	64.5	1.080E+00	1: 0.101996
				6: 0.654396
				7: 0.098915
				8: 0.144693
Testis (ICRU-44)	0.55200	74.7	1.040E+00	1: 0.106000
				6: 0.099000
				7: 0.020000
				8: 0.766000
				11: 0.002000
				15: 0.001000
				16: 0.002000
				17: 0.002000
				19: 0.002000
Tissue, Soft (ICRU-44)	0.54996	74.7	1.060E+00	1: 0.102000
				6: 0.143000
				7: 0.034000
				8: 0.708000
				11: 0.002000
				15: 0.003000
				16: 0.003000
				17: 0.002000
				19: 0.003000
Tissue, Soft (ICRU Four-Component)	0.54975	74.9	1.000E+00	1: 0.101174
				6: 0.111000
				7: 0.026000
				8: 0.761826
Tissue-Equivalent Gas, Methane Based	0.54992	61.2	1.064E-03	1: 0.101873
				6: 0.456177
				7: 0.035172
				8: 0.406778
Tissue-Equivalent Gas, Propane Based	0.55027	59.5	1.826E-03	1: 0.102676
				6: 0.568937
				7: 0.035022
				8: 0.293365
Water, Liquid	0.55508	75.0	1.000E+00	1: 0.111898
				8: 0.888102

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Water, Liquid
HTML table format

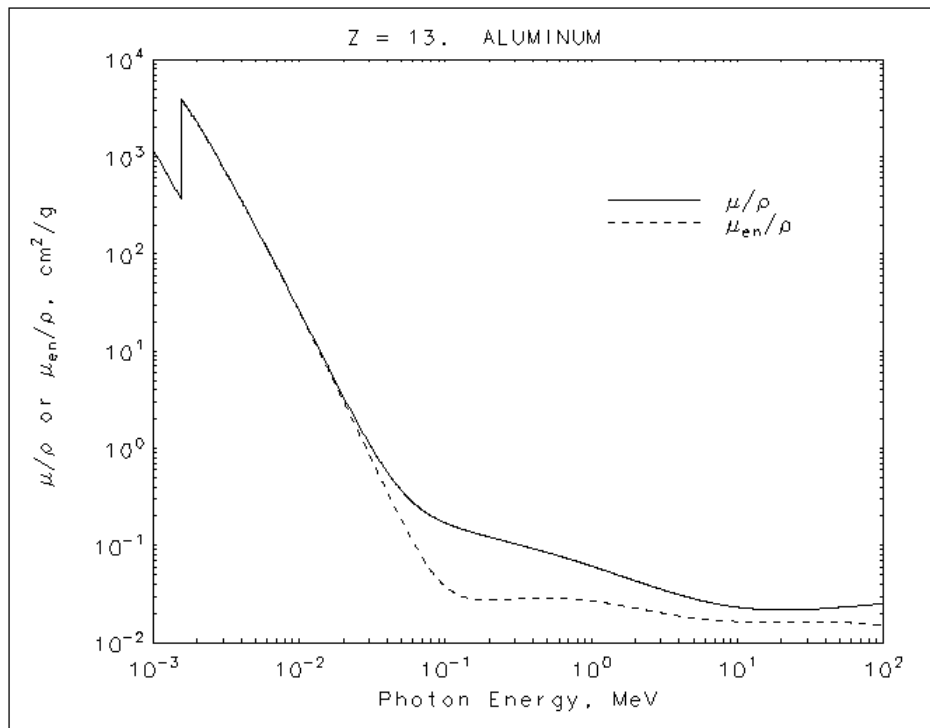
Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
1.00000E-03	4.078E+03	4.065E+03
1.50000E-03	1.376E+03	1.372E+03
2.00000E-03	6.173E+02	6.152E+02
3.00000E-03	1.929E+02	1.917E+02
4.00000E-03	8.278E+01	8.191E+01
5.00000E-03	4.258E+01	4.188E+01
6.00000E-03	2.464E+01	2.405E+01
8.00000E-03	1.037E+01	9.915E+00
1.00000E-02	5.329E+00	4.944E+00
1.50000E-02	1.673E+00	1.374E+00

Water, Liquid
ASCII format

Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
1.00000E-03	4.078E+03	4.065E+03
1.50000E-03	1.376E+03	1.372E+03
2.00000E-03	6.173E+02	6.152E+02
3.00000E-03	1.929E+02	1.917E+02
4.00000E-03	8.278E+01	8.191E+01
5.00000E-03	4.258E+01	4.188E+01
6.00000E-03	2.464E+01	2.405E+01
8.00000E-03	1.037E+01	9.915E+00
1.00000E-02	5.329E+00	4.944E+00
1.50000E-02	1.673E+00	1.374E+00
2.00000E-02	8.096E-01	5.503E-01
3.00000E-02	3.756E-01	1.557E-01
4.00000E-02	2.683E-01	6.947E-02

2.00000E-02	8.096E-01	5.503E-01	5.00000E-02	2.269E-01	4.223E-02
3.00000E-02	3.756E-01	1.557E-01	6.00000E-02	2.059E-01	3.190E-02
4.00000E-02	2.683E-01	6.947E-02	8.00000E-02	1.837E-01	2.597E-02
5.00000E-02	2.269E-01	4.223E-02	1.00000E-01	1.707E-01	2.546E-02
6.00000E-02	2.059E-01	3.190E-02	1.50000E-01	1.505E-01	2.764E-02
8.00000E-02	1.837E-01	2.597E-02	2.00000E-01	1.370E-01	2.967E-02
1.00000E-01	1.707E-01	2.546E-02	3.00000E-01	1.186E-01	3.192E-02
1.50000E-01	1.505E-01	2.764E-02	4.00000E-01	1.061E-01	3.279E-02
2.00000E-01	1.370E-01	2.967E-02	5.00000E-01	9.687E-02	3.299E-02
3.00000E-01	1.186E-01	3.192E-02	6.00000E-01	8.956E-02	3.284E-02
4.00000E-01	1.061E-01	3.279E-02	8.00000E-01	7.865E-02	3.206E-02
5.00000E-01	9.687E-02	3.299E-02	1.00000E+00	7.072E-02	3.103E-02
6.00000E-01	8.956E-02	3.284E-02	1.25000E+00	6.323E-02	2.965E-02
8.00000E-01	7.865E-02	3.206E-02	1.50000E+00	5.754E-02	2.833E-02
1.00000E+00	7.072E-02	3.103E-02	2.00000E+00	4.942E-02	2.608E-02
1.25000E+00	6.323E-02	2.965E-02	3.00000E+00	3.969E-02	2.281E-02
1.50000E+00	5.754E-02	2.833E-02	4.00000E+00	3.403E-02	2.066E-02
2.00000E+00	4.942E-02	2.608E-02	5.00000E+00	3.031E-02	1.915E-02
3.00000E+00	3.969E-02	2.281E-02	6.00000E+00	2.770E-02	1.806E-02
4.00000E+00	3.403E-02	2.066E-02	8.00000E+00	2.429E-02	1.658E-02
5.00000E+00	3.031E-02	1.915E-02	1.00000E+01	2.219E-02	1.566E-02
6.00000E+00	2.770E-02	1.806E-02	1.50000E+01	1.941E-02	1.441E-02
8.00000E+00	2.429E-02	1.658E-02	2.00000E+01	1.813E-02	1.382E-02
1.00000E+01	2.219E-02	1.566E-02			
1.50000E+01	1.941E-02	1.441E-02			
2.00000E+01	1.813E-02	1.382E-02			

[Back to table 4](#)



Aluminum
Z = 13

HTML table format

	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
K	1.00000E-03	1.185E+03	1.183E+03
	1.50000E-03	4.022E+02	4.001E+02
	1.55960E-03	3.621E+02	3.600E+02
	1.55960E-03	3.957E+03	3.829E+03
	2.00000E-03	2.263E+03	2.204E+03
	3.00000E-03	7.880E+02	7.732E+02
	4.00000E-03	3.605E+02	3.545E+02
	5.00000E-03	1.934E+02	1.902E+02
	6.00000E-03	1.153E+02	1.133E+02

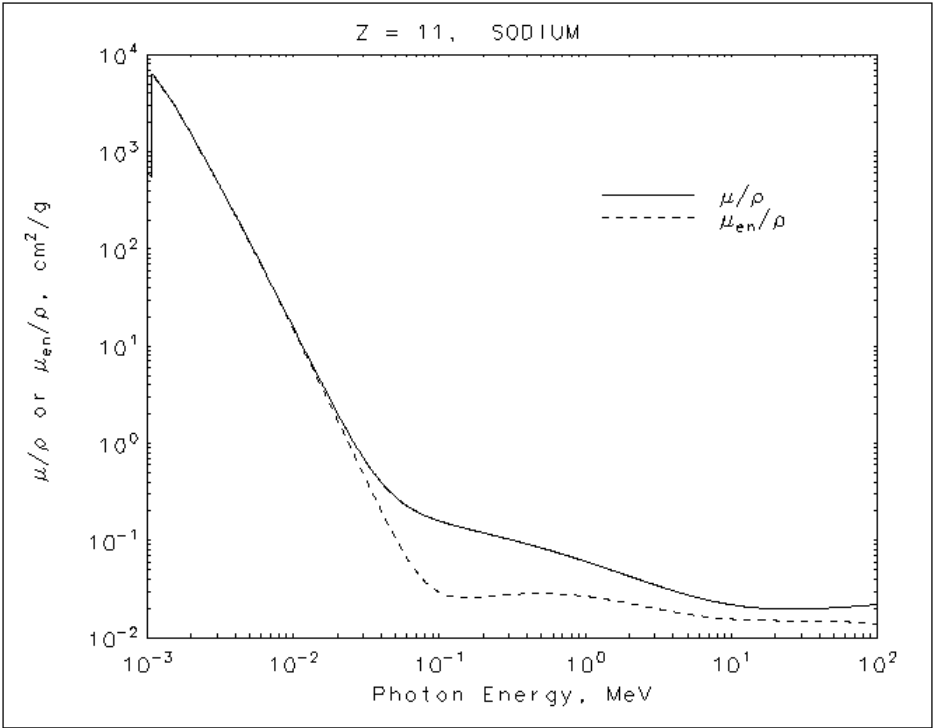
Aluminum
Z = 13

ASCII format

	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
K	1.00000E-03	1.185E+03	1.183E+03
	1.50000E-03	4.022E+02	4.001E+02
	1.55960E-03	3.621E+02	3.600E+02
	1.55960E-03	3.957E+03	3.829E+03
	2.00000E-03	2.263E+03	2.204E+03
	3.00000E-03	7.880E+02	7.732E+02
	4.00000E-03	3.605E+02	3.545E+02
	5.00000E-03	1.934E+02	1.902E+02
	6.00000E-03	1.153E+02	1.133E+02
	8.00000E-03	5.033E+01	4.918E+01
	1.00000E-02	2.623E+01	2.543E+01
	1.50000E-02	7.955E+00	7.487E+00

8.00000E-03	5.033E+01	4.918E+01	2.00000E-02	3.441E+00	3.094E+00
1.00000E-02	2.623E+01	2.543E+01	3.00000E-02	1.128E+00	8.778E-01
1.50000E-02	7.955E+00	7.487E+00	4.00000E-02	5.685E-01	3.601E-01
2.00000E-02	3.441E+00	3.094E+00	5.00000E-02	3.681E-01	1.840E-01
3.00000E-02	1.128E+00	8.778E-01	6.00000E-02	2.778E-01	1.099E-01
4.00000E-02	5.685E-01	3.601E-01	8.00000E-02	2.018E-01	5.511E-02
5.00000E-02	3.681E-01	1.840E-01	1.00000E-01	1.704E-01	3.794E-02
6.00000E-02	2.778E-01	1.099E-01	1.50000E-01	1.378E-01	2.827E-02
8.00000E-02	2.018E-01	5.511E-02	2.00000E-01	1.223E-01	2.745E-02
1.00000E-01	1.704E-01	3.794E-02	3.00000E-01	1.042E-01	2.816E-02
1.50000E-01	1.378E-01	2.827E-02	4.00000E-01	9.276E-02	2.862E-02
2.00000E-01	1.223E-01	2.745E-02	5.00000E-01	8.445E-02	2.868E-02
3.00000E-01	1.042E-01	2.816E-02	6.00000E-01	7.802E-02	2.851E-02
4.00000E-01	9.276E-02	2.862E-02	8.00000E-01	6.841E-02	2.778E-02
5.00000E-01	8.445E-02	2.868E-02	1.00000E+00	6.146E-02	2.686E-02
6.00000E-01	7.802E-02	2.851E-02	1.25000E+00	5.496E-02	2.565E-02
8.00000E-01	6.841E-02	2.778E-02	1.50000E+00	5.006E-02	2.451E-02
1.00000E+00	6.146E-02	2.686E-02	2.00000E+00	4.324E-02	2.266E-02
1.25000E+00	5.496E-02	2.565E-02	3.00000E+00	3.541E-02	2.024E-02
1.50000E+00	5.006E-02	2.451E-02	4.00000E+00	3.106E-02	1.882E-02
2.00000E+00	4.324E-02	2.266E-02	5.00000E+00	2.836E-02	1.795E-02
3.00000E+00	3.541E-02	2.024E-02	6.00000E+00	2.655E-02	1.739E-02
4.00000E+00	3.106E-02	1.882E-02	8.00000E+00	2.437E-02	1.678E-02
5.00000E+00	2.836E-02	1.795E-02	1.00000E+01	2.318E-02	1.650E-02
6.00000E+00	2.655E-02	1.739E-02	1.50000E+01	2.195E-02	1.631E-02
8.00000E+00	2.437E-02	1.678E-02	2.00000E+01	2.168E-02	1.633E-02

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Sodium
Z = 11

HTML table format

	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
K	1.00000E-03	6.542E+02	6.522E+02
	1.03542E-03	5.960E+02	5.941E+02
	1.07210E-03	5.429E+02	5.410E+02
	1.07210E-03	6.435E+03	6.320E+03
	1.50000E-03	3.194E+03	3.151E+03
	2.00000E-03	1.521E+03	1.504E+03
	3.00000E-03	5.070E+02	5.023E+02
	4.00000E-03	2.261E+02	2.238E+02
	5.00000E-03	1.194E+02	1.178E+02

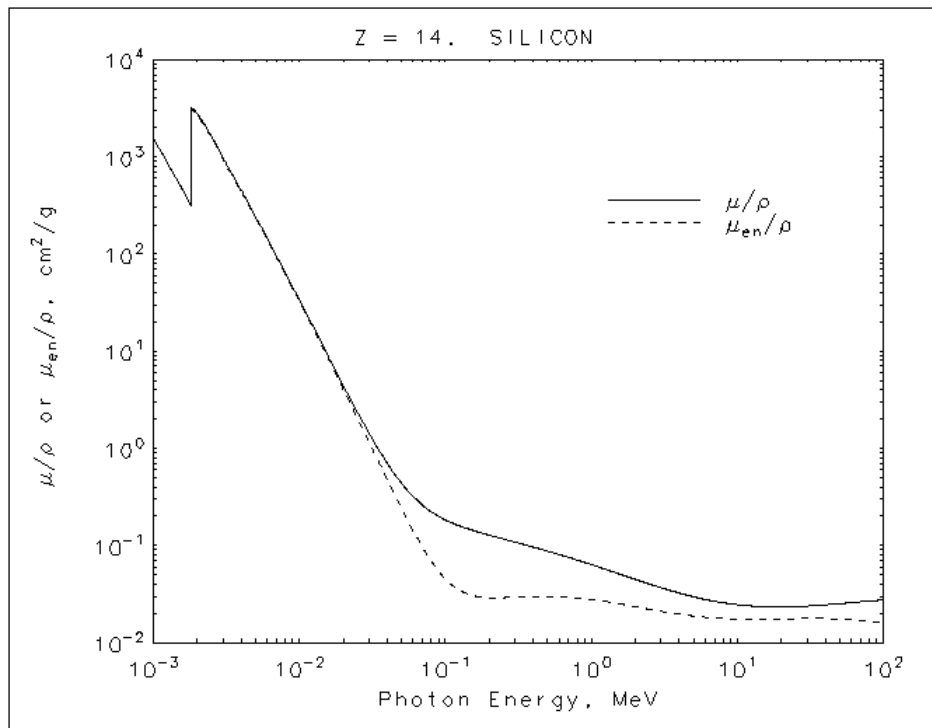
Sodium
Z = 11

ASCII format

	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
K	1.00000E-03	6.542E+02	6.522E+02
	1.03542E-03	5.960E+02	5.941E+02
	1.07210E-03	5.429E+02	5.410E+02
	1.07210E-03	6.435E+03	6.320E+03
	1.50000E-03	3.194E+03	3.151E+03
	2.00000E-03	1.521E+03	1.504E+03
	3.00000E-03	5.070E+02	5.023E+02
	4.00000E-03	2.261E+02	2.238E+02
	5.00000E-03	1.194E+02	1.178E+02
	6.00000E-03	7.030E+01	6.915E+01
	8.00000E-03	3.018E+01	2.941E+01
	1.00000E-02	1.557E+01	1.499E+01

6.00000E-03	7.030E+01	6.915E+01	1.50000E-02	4.694E+00	4.313E+00
8.00000E-03	3.018E+01	2.941E+01	2.00000E-02	2.057E+00	1.759E+00
1.00000E-02	1.557E+01	1.499E+01	3.00000E-02	7.197E-01	4.928E-01
1.50000E-02	4.694E+00	4.313E+00	4.00000E-02	3.969E-01	2.031E-01
2.00000E-02	2.057E+00	1.759E+00	5.00000E-02	2.804E-01	1.063E-01
3.00000E-02	7.197E-01	4.928E-01	6.00000E-02	2.268E-01	6.625E-02
4.00000E-02	3.969E-01	2.031E-01	8.00000E-02	1.796E-01	3.761E-02
5.00000E-02	2.804E-01	1.063E-01	1.00000E-01	1.585E-01	2.931E-02
6.00000E-02	2.268E-01	6.625E-02	1.50000E-01	1.335E-01	2.579E-02
8.00000E-02	1.796E-01	3.761E-02	2.00000E-01	1.199E-01	2.635E-02
1.00000E-01	1.585E-01	2.931E-02	3.00000E-01	1.029E-01	2.771E-02
1.50000E-01	1.335E-01	2.579E-02	4.00000E-01	9.185E-02	2.833E-02
2.00000E-01	1.199E-01	2.635E-02	5.00000E-01	8.372E-02	2.845E-02
3.00000E-01	1.029E-01	2.771E-02	6.00000E-01	7.736E-02	2.830E-02
4.00000E-01	9.185E-02	2.833E-02	8.00000E-01	6.788E-02	2.760E-02
5.00000E-01	8.372E-02	2.845E-02	1.00000E+00	6.100E-02	2.669E-02
6.00000E-01	7.736E-02	2.830E-02	1.25000E+00	5.454E-02	2.549E-02
8.00000E-01	6.788E-02	2.760E-02	1.50000E+00	4.968E-02	2.437E-02
1.00000E+00	6.100E-02	2.669E-02	2.00000E+00	4.282E-02	2.249E-02
1.25000E+00	5.454E-02	2.549E-02	3.00000E+00	3.487E-02	1.997E-02
1.50000E+00	4.968E-02	2.437E-02	4.00000E+00	3.037E-02	1.842E-02
2.00000E+00	4.282E-02	2.249E-02	5.00000E+00	2.753E-02	1.743E-02
3.00000E+00	3.487E-02	1.997E-02	6.00000E+00	2.559E-02	1.675E-02
4.00000E+00	3.037E-02	1.842E-02	8.00000E+00	2.319E-02	1.595E-02
5.00000E+00	2.753E-02	1.743E-02	1.00000E+01	2.181E-02	1.552E-02
6.00000E+00	2.559E-02	1.675E-02	1.50000E+01	2.023E-02	1.508E-02
8.00000E+00	2.319E-02	1.595E-02	2.00000E+01	1.970E-02	1.496E-02
1.00000E+01	2.181E-02	1.552E-02			
1.50000E+01	2.023E-02	1.508E-02			
2.00000E+01	1.970E-02	1.496E-02			

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Silicon
Z = 14

HTML table format

	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
K	1.00000E-03	1.570E+03	1.567E+03
	1.50000E-03	5.355E+02	5.331E+02
	1.83890E-03	3.092E+02	3.070E+02
	1.83890E-03	3.192E+03	3.059E+03
	2.00000E-03	2.777E+03	2.669E+03
	3.00000E-03	9.784E+02	9.516E+02
	4.00000E-03	4.529E+02	4.427E+02
	5.00000E-03	2.450E+02	2.400E+02
	6.00000E-03	1.470E+02	1.439E+02

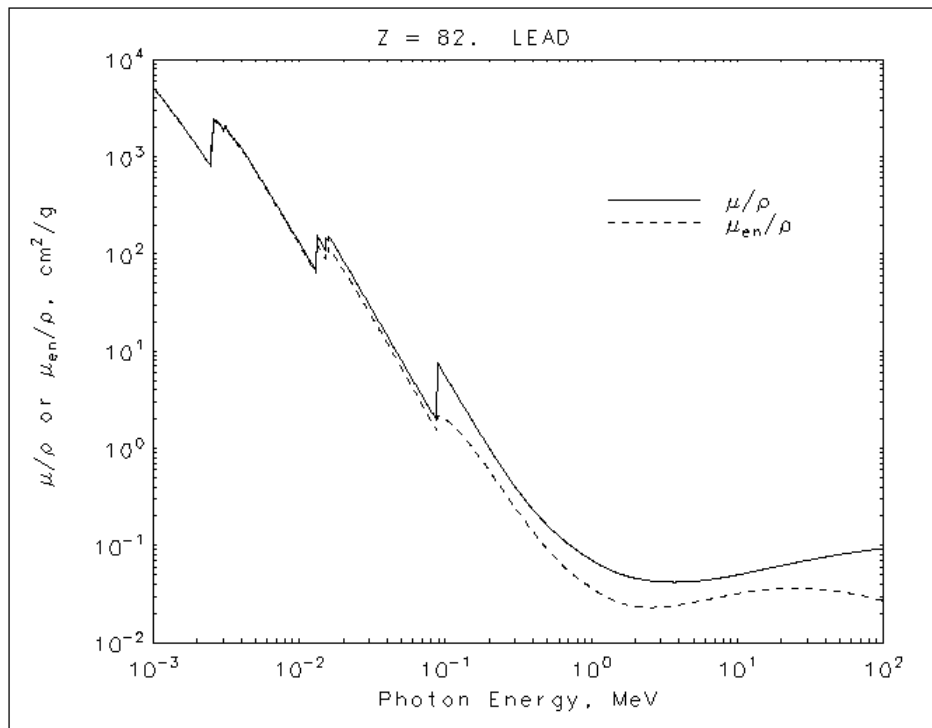
Silicon
Z = 14

ASCII format

	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
K	1.00000E-03	1.570E+03	1.567E+03
	1.50000E-03	5.355E+02	5.331E+02
	1.83890E-03	3.092E+02	3.070E+02
	1.83890E-03	3.192E+03	3.059E+03
	2.00000E-03	2.777E+03	2.669E+03
	3.00000E-03	9.784E+02	9.516E+02
	4.00000E-03	4.529E+02	4.427E+02
	5.00000E-03	2.450E+02	2.400E+02
	6.00000E-03	1.470E+02	1.439E+02
	8.00000E-03	6.468E+01	6.313E+01
	1.00000E-02	3.389E+01	3.289E+01

8.00000E-03	6.468E+01	6.313E+01
1.00000E-02	3.389E+01	3.289E+01
1.50000E-02	1.034E+01	9.794E+00
2.00000E-02	4.464E+00	4.076E+00
3.00000E-02	1.436E+00	1.164E+00
4.00000E-02	7.012E-01	4.782E-01
5.00000E-02	4.385E-01	2.430E-01
6.00000E-02	3.207E-01	1.434E-01
8.00000E-02	2.228E-01	6.896E-02
1.00000E-01	1.835E-01	4.513E-02
1.50000E-01	1.448E-01	3.086E-02
2.00000E-01	1.275E-01	2.905E-02
3.00000E-01	1.082E-01	2.932E-02
4.00000E-01	9.614E-02	2.968E-02
5.00000E-01	8.748E-02	2.971E-02
6.00000E-01	8.077E-02	2.951E-02
8.00000E-01	7.082E-02	2.875E-02
1.00000E+00	6.361E-02	2.778E-02
1.25000E+00	5.688E-02	2.652E-02
1.50000E+00	5.183E-02	2.535E-02
2.00000E+00	4.480E-02	2.345E-02
3.00000E+00	3.678E-02	2.101E-02
4.00000E+00	3.240E-02	1.963E-02
5.00000E+00	2.967E-02	1.878E-02
6.00000E+00	2.788E-02	1.827E-02
8.00000E+00	2.574E-02	1.773E-02
1.00000E+01	2.462E-02	1.753E-02
1.50000E+01	2.352E-02	1.746E-02
2.00000E+01	2.338E-02	1.757E-02

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**Lead**
Z = 82

HTML table format

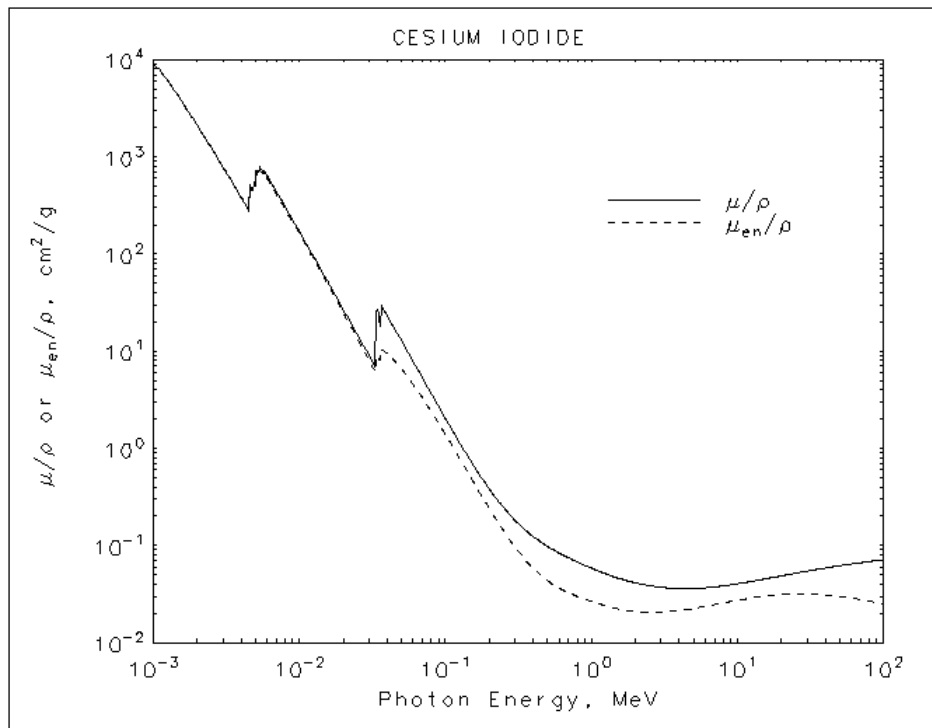
	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
M5	1.00000E-03	5.210E+03	5.197E+03
	1.50000E-03	2.356E+03	2.344E+03
	2.00000E-03	1.285E+03	1.274E+03
	2.48400E-03	8.006E+02	7.895E+02
	2.48400E-03	1.397E+03	1.366E+03
M4	2.53429E-03	1.726E+03	1.682E+03
	2.58560E-03	1.944E+03	1.895E+03
	2.58560E-03	2.458E+03	2.390E+03
	3.00000E-03	1.965E+03	1.913E+03
	3.00000E-03	1.965E+03	1.913E+03

Lead
Z = 82

ASCII format

	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
M5	1.00000E-03	5.210E+03	5.197E+03
	1.50000E-03	2.356E+03	2.344E+03
	2.00000E-03	1.285E+03	1.274E+03
	2.48400E-03	8.006E+02	7.895E+02
	2.48400E-03	1.397E+03	1.366E+03
M4	2.53429E-03	1.726E+03	1.682E+03
	2.58560E-03	1.944E+03	1.895E+03
	2.58560E-03	2.458E+03	2.390E+03
	3.00000E-03	1.965E+03	1.913E+03
	3.00000E-03	1.965E+03	1.913E+03
M3	3.06640E-03	1.857E+03	1.808E+03
	3.06640E-03	2.146E+03	2.090E+03
	3.30130E-03	1.796E+03	1.748E+03

M3	3.06640E-03	1.857E+03	1.808E+03	M2	3.55420E-03	1.496E+03	1.459E+03
	3.06640E-03	2.146E+03	2.090E+03		3.55420E-03	1.585E+03	1.546E+03
	3.30130E-03	1.796E+03	1.748E+03		3.69948E-03	1.442E+03	1.405E+03
M2	3.55420E-03	1.496E+03	1.459E+03	M1	3.85070E-03	1.311E+03	1.279E+03
	3.55420E-03	1.585E+03	1.546E+03		3.85070E-03	1.368E+03	1.335E+03
	3.69948E-03	1.442E+03	1.405E+03		4.00000E-03	1.251E+03	1.221E+03
M1	3.85070E-03	1.311E+03	1.279E+03	L3	5.00000E-03	7.304E+02	7.124E+02
	3.85070E-03	1.368E+03	1.335E+03		6.00000E-03	4.672E+02	4.546E+02
	4.00000E-03	1.251E+03	1.221E+03		8.00000E-03	2.287E+02	2.207E+02
L3	5.00000E-03	7.304E+02	7.124E+02	L2	1.00000E-02	1.306E+02	1.247E+02
	6.00000E-03	4.672E+02	4.546E+02		1.30352E-02	6.701E+01	6.270E+01
	8.00000E-03	2.287E+02	2.207E+02		1.30352E-02	1.621E+02	1.291E+02
L2	1.00000E-02	1.306E+02	1.247E+02	L1	1.50000E-02	1.116E+02	9.100E+01
	1.30352E-02	6.701E+01	6.270E+01		1.52000E-02	1.078E+02	8.807E+01
	1.30352E-02	1.621E+02	1.291E+02		1.52000E-02	1.485E+02	1.131E+02
L1	1.50000E-02	1.116E+02	9.100E+01	K	1.55269E-02	1.416E+02	1.083E+02
	1.52000E-02	1.078E+02	8.807E+01		1.58608E-02	1.344E+02	1.032E+02
	1.52000E-02	1.485E+02	1.131E+02		1.58608E-02	1.548E+02	1.180E+02
K	1.55269E-02	1.416E+02	1.083E+02		2.00000E-02	8.636E+01	6.899E+01
	1.58608E-02	1.344E+02	1.032E+02		3.00000E-02	3.032E+01	2.536E+01
	1.58608E-02	1.548E+02	1.180E+02		4.00000E-02	1.436E+01	1.211E+01
	2.00000E-02	8.636E+01	6.899E+01		5.00000E-02	8.041E+00	6.740E+00
	3.00000E-02	3.032E+01	2.536E+01		6.00000E-02	5.021E+00	4.149E+00
	4.00000E-02	1.436E+01	1.211E+01		8.00000E-02	2.419E+00	1.916E+00
	5.00000E-02	8.041E+00	6.740E+00		8.00000E-02	1.910E+00	1.482E+00
	6.00000E-02	5.021E+00	4.149E+00		8.80045E-02	7.683E+00	2.160E+00
	8.00000E-02	2.419E+00	1.916E+00		1.00000E-01	5.549E+00	1.976E+00
	8.80045E-02	1.910E+00	1.482E+00		1.50000E-01	2.014E+00	1.056E+00
	1.00000E-01	5.549E+00	1.976E+00		2.00000E-01	9.985E-01	5.870E-01
	1.50000E-01	2.014E+00	1.056E+00		3.00000E-01	4.031E-01	2.455E-01
	2.00000E-01	9.985E-01	5.870E-01		4.00000E-01	2.323E-01	1.370E-01
	3.00000E-01	4.031E-01	2.455E-01		5.00000E-01	1.614E-01	9.128E-02
	4.00000E-01	2.323E-01	1.370E-01		6.00000E-01	1.248E-01	6.819E-02
	5.00000E-01	1.614E-01	9.128E-02		8.00000E-01	8.870E-02	4.644E-02
	6.00000E-01	1.248E-01	6.819E-02		1.00000E+00	7.102E-02	3.654E-02
	8.00000E-01	8.870E-02	4.644E-02		1.25000E+00	5.876E-02	2.988E-02
	1.00000E+00	7.102E-02	3.654E-02		1.50000E+00	5.222E-02	2.640E-02
	1.25000E+00	5.876E-02	2.988E-02		2.00000E+00	4.606E-02	2.360E-02
	1.50000E+00	5.222E-02	2.640E-02		3.00000E+00	4.234E-02	2.322E-02
	2.00000E+00	4.606E-02	2.360E-02		4.00000E+00	4.197E-02	2.449E-02
	3.00000E+00	4.234E-02	2.322E-02		5.00000E+00	4.272E-02	2.600E-02
	4.00000E+00	4.197E-02	2.449E-02		6.00000E+00	4.391E-02	2.744E-02
	5.00000E+00	4.272E-02	2.600E-02		8.00000E+00	4.675E-02	2.989E-02
	6.00000E+00	4.391E-02	2.744E-02		1.00000E+01	4.972E-02	3.181E-02
	8.00000E+00	4.675E-02	2.989E-02		1.50000E+01	5.658E-02	3.478E-02
	1.00000E+01	4.972E-02	3.181E-02		2.00000E+01	6.206E-02	3.595E-02
	1.50000E+01	5.658E-02	3.478E-02				
	2.00000E+01	6.206E-02	3.595E-02				

Cesium Iodide
HTML table formatCesium Iodide
ASCII format

Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
1.00000E-03	9.234E+03	9.213E+03	1.00000E-03	9.234E+03	9.213E+03
1.03199E-03	8.653E+03	8.633E+03	1.03199E-03	8.653E+03	8.633E+03
1.06500E-03	8.098E+03	8.080E+03	1.06500E-03	8.098E+03	8.080E+03
55 M2 1.06500E-03	8.339E+03	8.320E+03	55 M2 1.06500E-03	8.339E+03	8.320E+03
1.06854E-03	8.281E+03	8.262E+03	1.06854E-03	8.281E+03	8.262E+03
1.07210E-03	8.224E+03	8.205E+03	1.07210E-03	8.224E+03	8.205E+03
53 M1 1.07210E-03	8.387E+03	8.368E+03	53 M1 1.07210E-03	8.387E+03	8.368E+03
1.14230E-03	7.344E+03	7.327E+03	1.14230E-03	7.344E+03	7.327E+03
55 M1 1.21710E-03	6.413E+03	6.398E+03	55 M1 1.21710E-03	6.413E+03	6.398E+03
1.21710E-03	6.413E+03	6.398E+03	1.21710E-03	6.413E+03	6.398E+03
1.21710E-03	6.413E+03	6.398E+03	1.21710E-03	6.413E+03	6.398E+03
55 M1 1.21710E-03	6.569E+03	6.553E+03	55 M1 1.21710E-03	6.569E+03	6.553E+03
1.50000E-03	4.132E+03	4.120E+03	1.50000E-03	4.132E+03	4.120E+03
2.00000E-03	2.114E+03	2.104E+03	2.00000E-03	2.114E+03	2.104E+03
3.00000E-03	7.880E+02	7.809E+02	3.00000E-03	7.880E+02	7.809E+02
4.00000E-03	3.836E+02	3.776E+02	4.00000E-03	3.836E+02	3.776E+02
4.55710E-03	2.752E+02	2.696E+02	4.55710E-03	2.752E+02	2.696E+02
4.55710E-03	2.752E+02	2.696E+02	4.55710E-03	2.752E+02	2.696E+02
4.70229E-03	4.851E+02	4.628E+02	4.70229E-03	4.851E+02	4.628E+02
4.85210E-03	4.510E+02	4.303E+02	4.85210E-03	4.510E+02	4.303E+02
53 L2 4.85210E-03	5.637E+02	5.332E+02	53 L2 4.85210E-03	5.637E+02	5.332E+02
5.00000E-03	5.296E+02	5.012E+02	5.00000E-03	5.296E+02	5.012E+02
5.01190E-03	5.268E+02	4.985E+02	5.01190E-03	5.268E+02	4.985E+02
5.01190E-03	5.268E+02	4.985E+02	5.01190E-03	5.268E+02	4.985E+02
5.09924E-03	7.193E+02	6.744E+02	5.09924E-03	7.193E+02	6.744E+02
5.18810E-03	6.881E+02	6.457E+02	5.18810E-03	6.881E+02	6.457E+02
53 L1 4.85210E-03	5.637E+02	5.332E+02	53 L1 4.85210E-03	5.637E+02	5.332E+02
5.18810E-03	6.881E+02	6.457E+02	5.18810E-03	6.881E+02	6.457E+02
5.27305E-03	7.196E+02	6.716E+02	5.27305E-03	7.196E+02	6.716E+02
5.35940E-03	6.875E+02	6.454E+02	5.35940E-03	6.875E+02	6.454E+02
5.35940E-03	6.875E+02	6.454E+02	5.35940E-03	6.875E+02	6.454E+02
5.53401E-03	7.323E+02	6.847E+02	5.53401E-03	7.323E+02	6.847E+02
5.71430E-03	6.761E+02	6.331E+02	5.71430E-03	6.761E+02	6.331E+02
5.71430E-03	6.761E+02	6.331E+02	5.71430E-03	6.761E+02	6.331E+02
6.00000E-03	6.448E+02	6.043E+02	6.00000E-03	6.448E+02	6.043E+02
8.00000E-03	3.071E+02	2.906E+02	8.00000E-03	3.071E+02	2.906E+02
1.00000E-02	1.711E+02	1.624E+02	1.00000E-02	1.711E+02	1.624E+02
1.50000E-02	5.815E+01	5.486E+01	1.50000E-02	5.815E+01	5.486E+01
2.00000E-02	2.686E+01	2.496E+01	2.00000E-02	2.686E+01	2.496E+01
3.00000E-02	9.045E+00	8.071E+00	3.00000E-02	9.045E+00	8.071E+00
3.31694E-02	6.923E+00	6.088E+00	3.31694E-02	6.923E+00	6.088E+00
53 K 3.31694E-02	2.122E+01	9.086E+00	53 K 3.31694E-02	2.122E+01	9.086E+00
3.45483E-02	2.687E+01	8.529E+00	3.45483E-02	2.687E+01	8.529E+00
3.59846E-02	1.719E+01	7.990E+00	3.59846E-02	1.719E+01	7.990E+00
55 K 3.59846E-02	3.027E+01	1.059E+01	55 K 3.59846E-02	3.027E+01	1.059E+01
4.00000E-02	2.297E+01	9.395E+00	4.00000E-02	2.297E+01	9.395E+00
5.00000E-02	1.287E+01	6.596E+00	5.00000E-02	1.287E+01	6.596E+00
6.00000E-02	7.921E+00	4.586E+00	6.00000E-02	7.921E+00	4.586E+00
8.00000E-02	3.677E+00	2.399E+00	8.00000E-02	3.677E+00	2.399E+00
1.00000E-01	2.035E+00	1.391E+00	1.00000E-01	2.035E+00	1.391E+00
1.50000E-01	7.290E-01	4.951E-01	1.50000E-01	7.290E-01	4.951E-01
2.00000E-01	3.805E-01	2.401E-01	2.00000E-01	3.805E-01	2.401E-01
3.00000E-01	1.818E-01	9.634E-02	3.00000E-01	1.818E-01	9.634E-02
4.00000E-01	1.237E-01	5.828E-02	4.00000E-01	1.237E-01	5.828E-02
5.00000E-01	9.809E-02	4.366E-02	5.00000E-01	9.809E-02	4.366E-02
6.00000E-01	8.373E-02	3.657E-02	6.00000E-01	8.373E-02	3.657E-02
8.00000E-01	6.769E-02	2.987E-02	8.00000E-01	6.769E-02	2.987E-02
1.00000E+00	5.848E-02	2.657E-02	1.00000E+00	5.848E-02	2.657E-02
1.25000E+00	5.110E-02	2.402E-02	1.25000E+00	5.110E-02	2.402E-02
1.50000E+00	4.644E-02	2.243E-02	1.50000E+00	4.644E-02	2.243E-02
2.00000E+00	4.123E-02	2.089E-02	2.00000E+00	4.123E-02	2.089E-02
3.00000E+00	3.721E-02	2.059E-02	3.00000E+00	3.721E-02	2.059E-02
4.00000E+00	3.616E-02	2.144E-02	4.00000E+00	3.616E-02	2.144E-02

2.00000E-03	2.114E+03	2.104E+03	53 L3 4.55710E-03	5.174E+02	4.936E+02
3.00000E-03	7.880E+02	7.809E+02	4.70229E-03	4.851E+02	4.628E+02
4.00000E-03	3.836E+02	3.776E+02	4.85210E-03	4.510E+02	4.303E+02
4.55710E-03	2.752E+02	2.696E+02	53 L2 4.85210E-03	5.637E+02	5.332E+02
53 L3 4.55710E-03	5.174E+02	4.936E+02	5.00000E-03	5.296E+02	5.012E+02
4.70229E-03	4.851E+02	4.628E+02	5.01190E-03	5.268E+02	4.985E+02
4.85210E-03	4.510E+02	4.303E+02	55 L3 5.01190E-03	7.511E+02	7.037E+02
53 L2 4.85210E-03	5.637E+02	5.332E+02	5.09924E-03	7.193E+02	6.744E+02
5.00000E-03	5.296E+02	5.012E+02	5.18810E-03	6.881E+02	6.457E+02
5.01190E-03	5.268E+02	4.985E+02	53 L1 5.18810E-03	7.453E+02	6.987E+02
5.09924E-03	7.193E+02	6.744E+02	5.27305E-03	7.196E+02	6.716E+02
5.18810E-03	6.881E+02	6.457E+02	5.35940E-03	6.875E+02	6.454E+02
55 L3 5.01190E-03	7.511E+02	7.037E+02	5.35940E-03	6.875E+02	6.454E+02
5.09924E-03	7.193E+02	6.744E+02	5.53401E-03	7.323E+02	6.847E+02
5.18810E-03	6.881E+02	6.457E+02	5.71430E-03	6.761E+02	6.331E+02
53 L1 5.18810E-03	7.453E+02	6.987E+02	55 L1 5.71430E-03	7.268E+02	6.795E+02
5.27305E-03	7.196E+02	6.716E+02	6.00000E-03	6.448E+02	6.043E+02
5.35940E-03	6.875E+02	6.454E+02	8.00000E-03	3.071E+02	2.906E+02
55 L2 5.35940E-03	7.923E+02	7.397E+02	1.00000E-02	1.711E+02	1.624E+02
5.53401E-03	7.323E+02	6.847E+02	1.50000E-02	5.815E+01	5.486E+01
5.71430E-03	6.761E+02	6.331E+02	2.00000E-02	2.686E+01	2.496E+01
55 L1 5.71430E-03	7.268E+02	6.795E+02	3.00000E-02	9.045E+00	8.071E+00
6.00000E-03	6.448E+02	6.043E+02	3.31694E-02	6.923E+00	6.088E+00
8.00000E-03	3.071E+02	2.906E+02	53 K 3.31694E-02	2.122E+01	9.086E+00
1.00000E-02	1.711E+02	1.624E+02	3.45483E-02	2.687E+01	8.529E+00
1.50000E-02	5.815E+01	5.486E+01	3.59846E-02	1.719E+01	7.990E+00
2.00000E-02	2.686E+01	2.496E+01	55 K 3.59846E-02	3.027E+01	1.059E+01
3.00000E-02	9.045E+00	8.071E+00	4.00000E-02	2.297E+01	9.395E+00
3.31694E-02	6.923E+00	6.088E+00	5.00000E-02	1.287E+01	6.596E+00
53 K 3.31694E-02	2.122E+01	9.086E+00	6.00000E-02	7.921E+00	4.586E+00
3.45483E-02	2.687E+01	8.529E+00	8.00000E-02	3.677E+00	2.399E+00
3.59846E-02	1.719E+01	7.990E+00	1.00000E-01	2.035E+00	1.391E+00
55 K 3.59846E-02	3.027E+01	1.059E+01	1.50000E-01	7.290E-01	4.951E-01
4.00000E-02	2.297E+01	9.395E+00	2.00000E-01	3.805E-01	2.401E-01
5.00000E-02	1.287E+01	6.596E+00	3.00000E-01	1.818E-01	9.634E-02
6.00000E-02	7.921E+00	4.586E+00	4.00000E-01	1.237E-01	5.828E-02
8.00000E-02	3.677E+00	2.399E+00	5.00000E-01	9.809E-02	4.366E-02
1.00000E-01	2.035E+00	1.391E+00	6.00000E-01	8.373E-02	3.657E-02
1.50000E-01	7.290E-01	4.951E-01	8.00000E-01	6.769E-02	2.987E-02
2.00000E-01	3.805E-01	2.401E-01	1.00000E+00	5.848E-02	2.657E-02
3.00000E-01	1.818E-01	9.634E-02	1.25000E+00	5.110E-02	2.402E-02
4.00000E-01	1.237E-01	5.828E-02	1.50000E+00	4.644E-02	2.243E-02
5.00000E-01	9.809E-02	4.366E-02	2.00000E+00	4.123E-02	2.089E-02
6.00000E-01	8.373E-02	3.657E-02	3.00000E+00	3.721E-02	2.059E-02
8.00000E-01	6.769E-02	2.987E-02	4.00000E+00	3.616E-02	2.144E-02
1.00000E+00	5.848E-02	2.657E-02	5.00000E+00	3.622E-02	2.255E-02
1.25000E+00	5.110E-02	2.402E-02	6.00000E+00	3.673E-02	2.364E-02
1.50000E+00	4.644E-02	2.243E-02	8.00000E+00	3.838E-02	2.563E-02
2.00000E+00	4.123E-02	2.089E-02	1.00000E+01	4.030E-02	2.725E-02
3.00000E+00	3.721E-02	2.059E-02	1.50000E+01	4.492E-02	2.992E-02
4.00000E+00	3.616E-02	2.144E-02	2.00000E+01	4.867E-02	3.114E-02

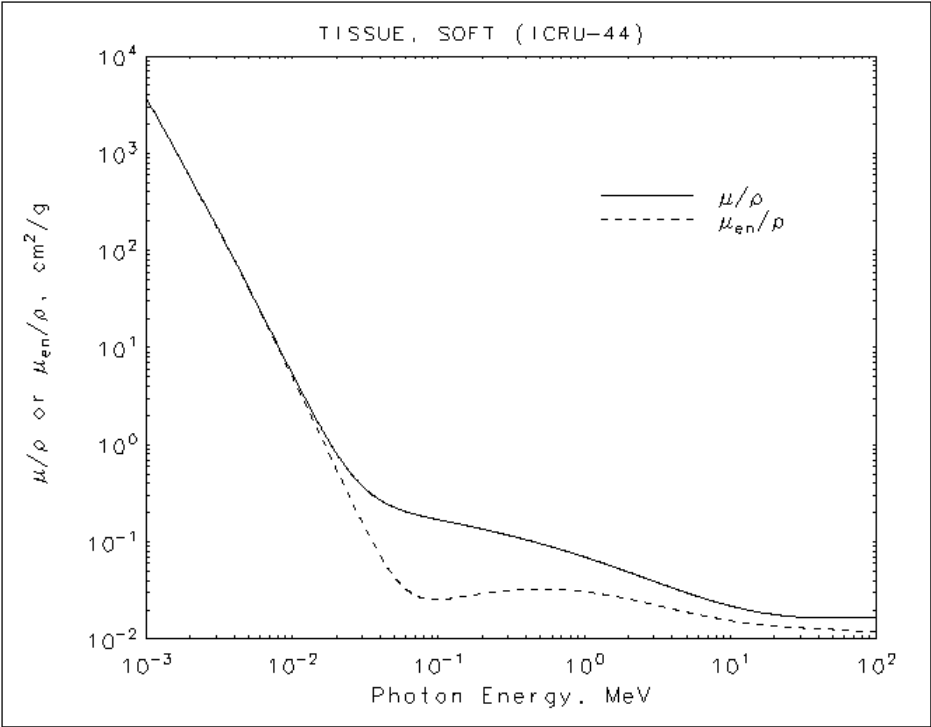
5.00000E+00	3.622E-02	2.255E-02
6.00000E+00	3.673E-02	2.364E-02
8.00000E+00	3.838E-02	2.563E-02
1.00000E+01	4.030E-02	2.725E-02
1.50000E+01	4.492E-02	2.992E-02
2.00000E+01	4.867E-02	3.114E-02

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Tissue, Soft (ICRU-44)
HTML table format

	Energy (MeV)	μ/ρ (cm^2/g)	μ_{en}/ρ (cm^2/g)
11 K	1.00000E-03	3.712E+03	3.701E+03
	1.03542E-03	3.386E+03	3.376E+03
	1.07210E-03	3.087E+03	3.079E+03
	1.07210E-03	3.099E+03	3.090E+03
	1.50000E-03	1.251E+03	1.247E+03
15 K	2.00000E-03	5.596E+02	5.577E+02
	2.14550E-03	4.583E+02	4.566E+02
	2.14550E-03	4.650E+02	4.629E+02
	2.30297E-03	3.800E+02	3.782E+02
	2.30297E-03	3.800E+02	3.782E+02

Tissue, Soft (ICRU-44)
ASCII format

	Energy (MeV)	μ/ρ (cm^2/g)	μ_{en}/ρ (cm^2/g)
11 K	1.00000E-03	3.712E+03	3.701E+03
	1.03542E-03	3.386E+03	3.376E+03
	1.07210E-03	3.087E+03	3.079E+03
	1.07210E-03	3.099E+03	3.090E+03
	1.50000E-03	1.251E+03	1.247E+03
15 K	2.00000E-03	5.596E+02	5.577E+02
	2.14550E-03	4.583E+02	4.566E+02
	2.14550E-03	4.650E+02	4.629E+02
	2.30297E-03	3.800E+02	3.782E+02
	2.30297E-03	3.800E+02	3.782E+02
16 K	2.47200E-03	3.102E+02	3.086E+02
	2.47200E-03	3.158E+02	3.137E+02
	2.64140E-03	2.612E+02	2.594E+02
	2.82240E-03	2.158E+02	2.142E+02
	2.82240E-03	2.188E+02	2.169E+02
17 K	3.00000E-03	1.836E+02	1.819E+02

16 K	2.47200E-03	3.102E+02	3.086E+02
	2.47200E-03	3.158E+02	3.137E+02
	2.64140E-03	2.612E+02	2.594E+02
	2.82240E-03	2.158E+02	2.142E+02
17 K	2.82240E-03	2.188E+02	2.169E+02
	3.00000E-03	1.836E+02	1.819E+02
	3.60740E-03	1.073E+02	1.061E+02
	3.60740E-03	1.105E+02	1.089E+02
19 K	4.00000E-03	8.161E+01	8.030E+01
	5.00000E-03	4.224E+01	4.135E+01
	6.00000E-03	2.456E+01	2.389E+01
	8.00000E-03	1.042E+01	9.935E+00
	1.00000E-02	5.379E+00	4.987E+00
	1.50000E-02	1.699E+00	1.402E+00
	2.00000E-02	8.230E-01	5.663E-01
	3.00000E-02	3.790E-01	1.616E-01
	4.00000E-02	2.688E-01	7.216E-02
	5.00000E-02	2.264E-01	4.360E-02
	6.00000E-02	2.048E-01	3.264E-02
	8.00000E-02	1.823E-01	2.617E-02
	1.00000E-01	1.693E-01	2.545E-02
	1.50000E-01	1.492E-01	2.745E-02
	2.00000E-01	1.358E-01	2.942E-02
	3.00000E-01	1.175E-01	3.164E-02
	4.00000E-01	1.052E-01	3.249E-02
	5.00000E-01	9.598E-02	3.269E-02
	6.00000E-01	8.873E-02	3.254E-02
	8.00000E-01	7.793E-02	3.176E-02
	1.00000E+00	7.006E-02	3.074E-02
	1.25000E+00	6.265E-02	2.938E-02
	1.50000E+00	5.701E-02	2.807E-02
	2.00000E+00	4.895E-02	2.583E-02
	3.00000E+00	3.931E-02	2.259E-02
	4.00000E+00	3.369E-02	2.045E-02
	5.00000E+00	3.000E-02	1.895E-02
	6.00000E+00	2.741E-02	1.786E-02
	8.00000E+00	2.401E-02	1.639E-02
	1.00000E+01	2.193E-02	1.547E-02
	1.50000E+01	1.915E-02	1.422E-02
	2.00000E+01	1.787E-02	1.362E-02

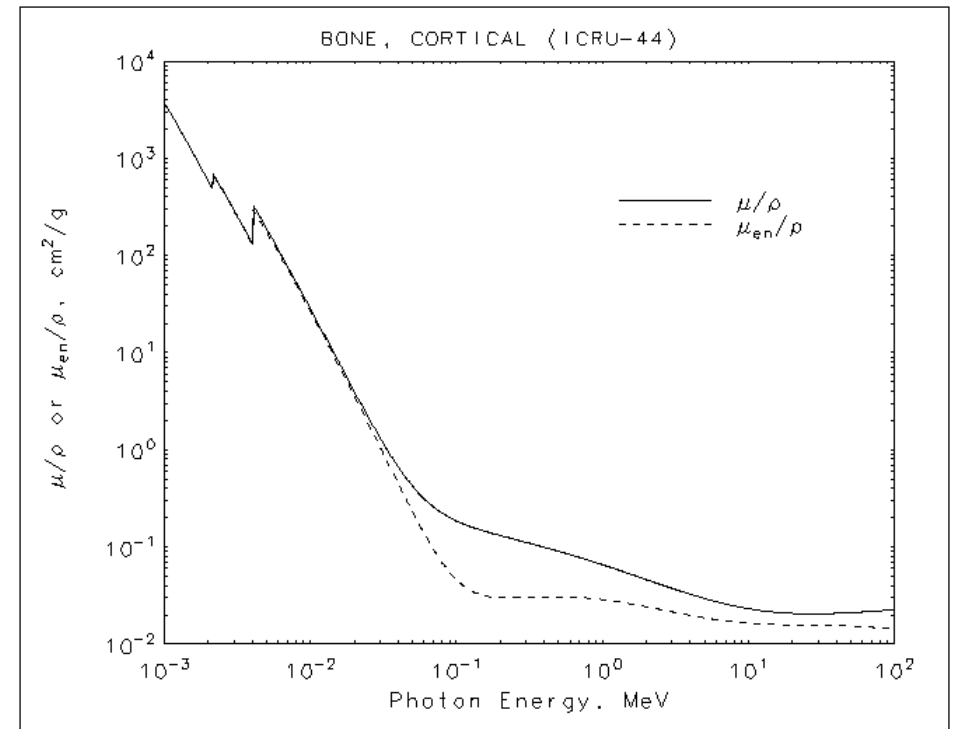
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19 K	3.60740E-03	1.073E+02	1.061E+02
	3.60740E-03	1.105E+02	1.089E+02
	4.00000E-03	8.161E+01	8.030E+01
	5.00000E-03	4.224E+01	4.135E+01
	6.00000E-03	2.456E+01	2.389E+01
	8.00000E-03	1.042E+01	9.935E+00
	1.00000E-02	5.379E+00	4.987E+00
	1.50000E-02	1.699E+00	1.402E+00
	2.00000E-02	8.230E-01	5.663E-01
	3.00000E-02	3.790E-01	1.616E-01
	4.00000E-02	2.688E-01	7.216E-02
	5.00000E-02	2.264E-01	4.360E-02
	6.00000E-02	2.048E-01	3.264E-02
	8.00000E-02	1.823E-01	2.617E-02
	1.00000E-01	1.693E-01	2.545E-02
	1.50000E-01	1.492E-01	2.745E-02
	2.00000E-01	1.358E-01	2.942E-02
	3.00000E-01	1.175E-01	3.164E-02
	4.00000E-01	1.052E-01	3.249E-02
	5.00000E-01	9.598E-02	3.269E-02
	6.00000E-01	8.873E-02	3.254E-02
	8.00000E-01	7.793E-02	3.176E-02
	1.00000E+00	7.006E-02	3.074E-02
	1.25000E+00	6.265E-02	2.938E-02
	1.50000E+00	5.701E-02	2.807E-02
	2.00000E+00	4.895E-02	2.583E-02
	3.00000E+00	3.931E-02	2.259E-02
	4.00000E+00	3.369E-02	2.045E-02
	5.00000E+00	3.000E-02	1.895E-02
	6.00000E+00	2.741E-02	1.786E-02
	8.00000E+00	2.401E-02	1.639E-02
	1.00000E+01	2.193E-02	1.547E-02
	1.50000E+01	1.915E-02	1.422E-02
	2.00000E+01	1.787E-02	1.362E-02

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Bone, Cortical (ICRU-44)
HTML table format

	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
	1.00000E-03	3.781E+03	3.772E+03
	1.03542E-03	3.452E+03	3.444E+03
	1.07210E-03	3.150E+03	3.143E+03
	1.07210E-03	3.156E+03	3.149E+03
11 K	1.18283E-03	2.434E+03	2.429E+03
	1.30500E-03	1.873E+03	1.869E+03
	1.30500E-03	1.883E+03	1.878E+03
	1.50000E-03	1.295E+03	1.291E+03
12 K	2.00000E-03	5.869E+02	5.846E+02
	2.14550E-03	4.824E+02	4.803E+02
	2.14550E-03	7.114E+02	6.961E+02
	2.47200E-03	4.962E+02	4.857E+02
15 K	3.00000E-03	2.958E+02	2.897E+02

Bone, Cortical (ICRU-44)
ASCII format

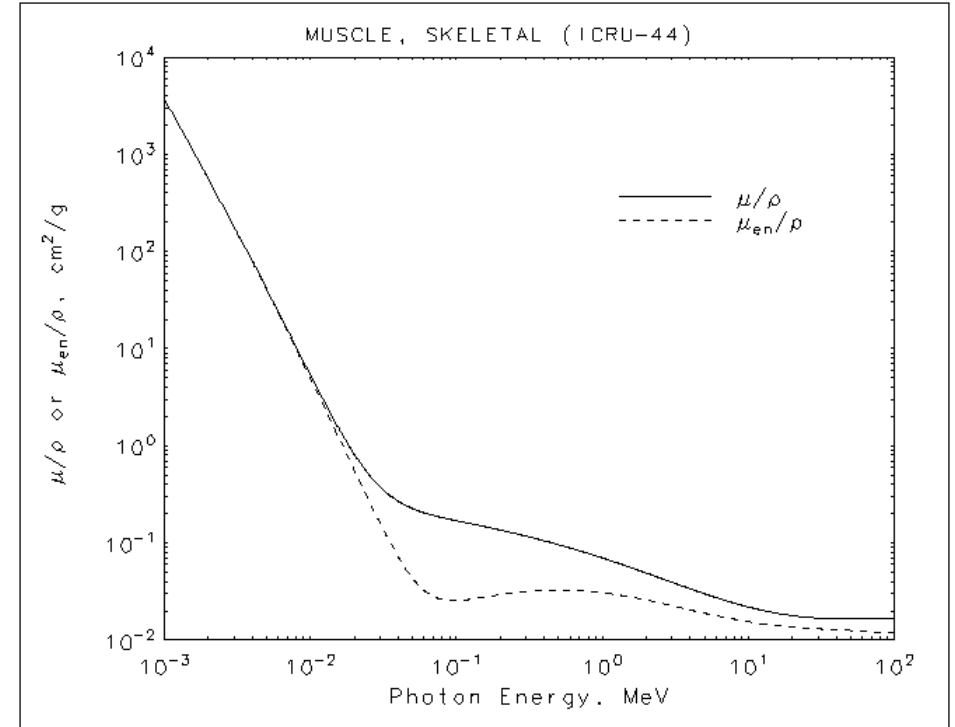
	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
	1.00000E-03	3.781E+03	3.772E+03
	1.03542E-03	3.452E+03	3.444E+03
	1.07210E-03	3.150E+03	3.143E+03
	1.07210E-03	3.156E+03	3.149E+03
11 K	1.18283E-03	2.434E+03	2.429E+03
	1.30500E-03	1.873E+03	1.869E+03
	1.30500E-03	1.883E+03	1.878E+03
	1.50000E-03	1.295E+03	1.291E+03
12 K	2.00000E-03	5.869E+02	5.846E+02
	2.14550E-03	4.824E+02	4.803E+02
	2.14550E-03	7.114E+02	6.961E+02
	2.30297E-03	5.916E+02	5.789E+02
15 K	2.47200E-03	4.907E+02	4.805E+02
	2.47200E-03	4.962E+02	4.857E+02
	3.00000E-03	2.958E+02	2.897E+02

16 K	2.30297E-03	5.916E+02	5.789E+02	20 K	4.00000E-03	1.331E+02	1.303E+02
	2.47200E-03	4.907E+02	4.805E+02		4.03810E-03	1.296E+02	1.269E+02
	2.47200E-03	4.962E+02	4.857E+02		4.03810E-03	3.332E+02	3.006E+02
	3.00000E-03	2.958E+02	2.897E+02		5.00000E-03	1.917E+02	1.757E+02
	4.00000E-03	1.331E+02	1.303E+02		6.00000E-03	1.171E+02	1.085E+02
20 K	4.03810E-03	1.296E+02	1.269E+02		8.00000E-03	5.323E+01	4.987E+01
	4.03810E-03	3.332E+02	3.006E+02		1.00000E-02	2.851E+01	2.680E+01
	5.00000E-03	1.917E+02	1.757E+02		1.50000E-02	9.032E+00	8.388E+00
	6.00000E-03	1.171E+02	1.085E+02		2.00000E-02	4.001E+00	3.601E+00
	8.00000E-03	5.323E+01	4.987E+01		3.00000E-02	1.331E+00	1.070E+00
	1.00000E-02	2.851E+01	2.680E+01		4.00000E-02	6.655E-01	4.507E-01
	1.50000E-02	9.032E+00	8.388E+00		5.00000E-02	4.242E-01	2.336E-01
	2.00000E-02	4.001E+00	3.601E+00		6.00000E-02	3.148E-01	1.400E-01
	3.00000E-02	1.331E+00	1.070E+00		8.00000E-02	2.229E-01	6.896E-02
	4.00000E-02	6.655E-01	4.507E-01		1.00000E-01	1.855E-01	4.585E-02
	5.00000E-02	4.242E-01	2.336E-01		1.50000E-01	1.480E-01	3.183E-02
	6.00000E-02	3.148E-01	1.400E-01		2.00000E-01	1.309E-01	3.003E-02
	8.00000E-02	2.229E-01	6.896E-02		3.00000E-01	1.113E-01	3.032E-02
	1.00000E-01	1.855E-01	4.585E-02		4.00000E-01	9.908E-02	3.069E-02
	1.50000E-01	1.480E-01	3.183E-02		5.00000E-01	9.022E-02	3.073E-02
	2.00000E-01	1.309E-01	3.003E-02		6.00000E-01	8.332E-02	3.052E-02
	3.00000E-01	1.113E-01	3.032E-02		8.00000E-01	7.308E-02	2.973E-02
	4.00000E-01	9.908E-02	3.069E-02		1.00000E+00	6.566E-02	2.875E-02
	5.00000E-01	9.022E-02	3.073E-02		1.25000E+00	5.871E-02	2.745E-02
	6.00000E-01	8.332E-02	3.052E-02		1.50000E+00	5.346E-02	2.623E-02
	8.00000E-01	7.308E-02	2.973E-02		2.00000E+00	4.607E-02	2.421E-02
	1.00000E+00	6.566E-02	2.875E-02		3.00000E+00	3.745E-02	2.145E-02
	1.25000E+00	5.871E-02	2.745E-02		4.00000E+00	3.257E-02	1.975E-02
	1.50000E+00	5.346E-02	2.623E-02		5.00000E+00	2.946E-02	1.864E-02
	2.00000E+00	4.607E-02	2.421E-02		6.00000E+00	2.734E-02	1.788E-02
	3.00000E+00	3.745E-02	2.145E-02		8.00000E+00	2.467E-02	1.695E-02
	4.00000E+00	3.257E-02	1.975E-02		1.00000E+01	2.314E-02	1.644E-02
	5.00000E+00	2.946E-02	1.864E-02		1.50000E+01	2.132E-02	1.587E-02
	6.00000E+00	2.734E-02	1.788E-02		2.00000E+01	2.068E-02	1.568E-02

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Muscle, Skeletal (ICRU-44)
HTML table format

	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
11 K	1.00000E-03	3.719E+03	3.709E+03
	1.03542E-03	3.393E+03	3.383E+03
	1.07210E-03	3.094E+03	3.085E+03
	1.07210E-03	3.100E+03	3.091E+03
	1.50000E-03	1.251E+03	1.247E+03
15 K	1.50000E-03	5.594E+02	5.574E+02
	2.14550E-03	4.581E+02	4.564E+02
	2.14550E-03	4.626E+02	4.606E+02
16 K	2.14550E-03	4.626E+02	4.606E+02
	2.30297E-03	3.776E+02	3.762E+02
	2.47200E-03	3.085E+02	3.069E+02
17 K	2.47200E-03	3.140E+02	3.121E+02
	3.00000E-03	1.812E+02	1.796E+02

Muscle, Skeletal
ASCII format

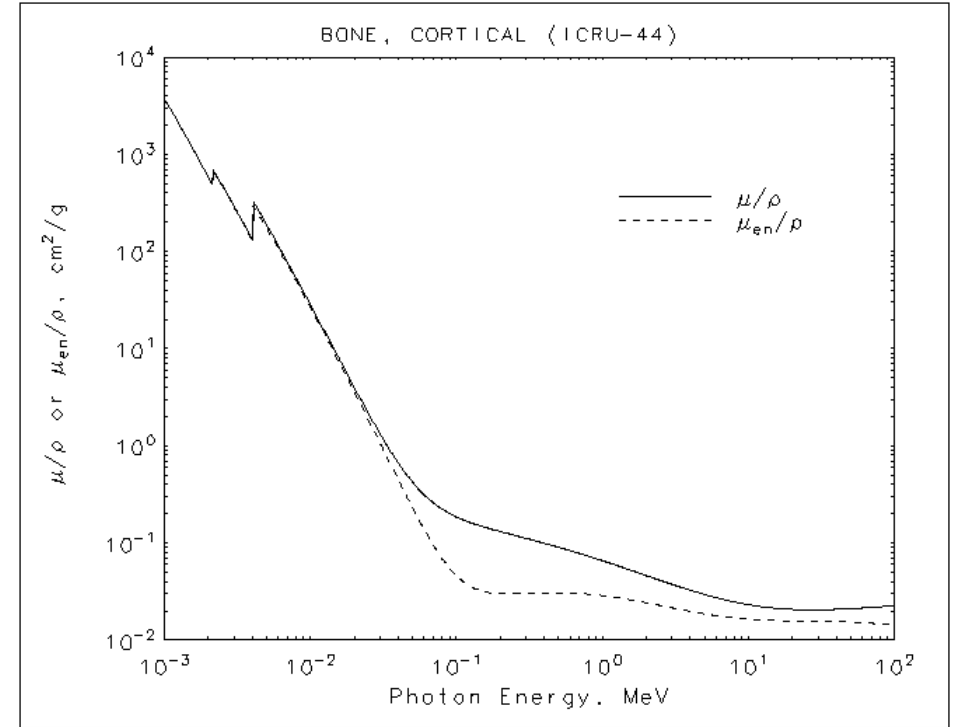
	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
11 K	1.00000E-03	3.719E+03	3.709E+03
	1.03542E-03	3.393E+03	3.383E+03
	1.07210E-03	3.094E+03	3.085E+03
	1.07210E-03	3.100E+03	3.091E+03
	1.50000E-03	1.251E+03	1.247E+03
15 K	1.50000E-03	5.594E+02	5.574E+02
	2.14550E-03	4.581E+02	4.564E+02
	2.14550E-03	4.626E+02	4.606E+02
16 K	2.14550E-03	4.626E+02	4.606E+02
	2.30297E-03	3.776E+02	3.762E+02
	2.47200E-03	3.085E+02	3.069E+02
17 K	2.47200E-03	3.140E+02	3.121E+02
	2.64140E-03	2.597E+02	2.579E+02
	2.82240E-03	2.145E+02	2.130E+02

	2.64140E-03	2.597E+02	2.579E+02	19 K	3.60740E-03	1.057E+02	1.046E+02
	2.82240E-03	2.145E+02	2.130E+02		3.60740E-03	1.100E+02	1.083E+02
17 K	2.82240E-03	2.160E+02	2.143E+02		4.00000E-03	8.127E+01	7.992E+01
	3.00000E-03	1.812E+02	1.796E+02		5.00000E-03	4.206E+01	4.116E+01
	3.60740E-03	1.057E+02	1.046E+02		6.00000E-03	2.446E+01	2.377E+01
19 K	3.60740E-03	1.100E+02	1.083E+02		8.00000E-03	1.037E+01	9.888E+00
	4.00000E-03	8.127E+01	7.992E+01		1.00000E-02	5.356E+00	4.964E+00
	5.00000E-03	4.206E+01	4.116E+01		1.50000E-02	1.693E+00	1.396E+00
	6.00000E-03	2.446E+01	2.377E+01		2.00000E-02	8.205E-01	5.638E-01
	8.00000E-03	1.037E+01	9.888E+00		3.00000E-02	3.783E-01	1.610E-01
	1.00000E-02	5.356E+00	4.964E+00		4.00000E-02	2.685E-01	7.192E-02
	1.50000E-02	1.693E+00	1.396E+00		5.00000E-02	2.262E-01	4.349E-02
	2.00000E-02	8.205E-01	5.638E-01		6.00000E-02	2.048E-01	3.258E-02
	3.00000E-02	3.783E-01	1.610E-01		8.00000E-02	1.823E-01	2.615E-02
	4.00000E-02	2.685E-01	7.192E-02		1.00000E-01	1.693E-01	2.544E-02
	5.00000E-02	2.262E-01	4.349E-02		1.50000E-01	1.492E-01	2.745E-02
	6.00000E-02	2.048E-01	3.258E-02		2.00000E-01	1.358E-01	2.942E-02
	8.00000E-02	1.823E-01	2.615E-02		3.00000E-01	1.176E-01	3.164E-02
	1.00000E-01	1.693E-01	2.544E-02		4.00000E-01	1.052E-01	3.249E-02
	1.50000E-01	1.492E-01	2.745E-02		5.00000E-01	9.598E-02	3.269E-02
	2.00000E-01	1.358E-01	2.942E-02		6.00000E-01	8.874E-02	3.254E-02
	3.00000E-01	1.176E-01	3.164E-02		8.00000E-01	7.793E-02	3.177E-02
	4.00000E-01	1.052E-01	3.249E-02		1.00000E+00	7.007E-02	3.074E-02
	5.00000E-01	9.598E-02	3.269E-02		1.25000E+00	6.265E-02	2.938E-02
	6.00000E-01	8.874E-02	3.254E-02		1.50000E+00	5.701E-02	2.808E-02
	8.00000E-01	7.793E-02	3.177E-02		2.00000E+00	4.896E-02	2.584E-02
	1.00000E+00	7.007E-02	3.074E-02		3.00000E+00	3.931E-02	2.259E-02
	1.25000E+00	6.265E-02	2.938E-02		4.00000E+00	3.369E-02	2.045E-02
	1.50000E+00	5.701E-02	2.808E-02		5.00000E+00	3.000E-02	1.895E-02
	2.00000E+00	4.896E-02	2.584E-02		6.00000E+00	2.741E-02	1.786E-02
	3.00000E+00	3.931E-02	2.259E-02		8.00000E+00	2.401E-02	1.639E-02
	4.00000E+00	3.369E-02	2.045E-02		1.00000E+01	2.192E-02	1.547E-02
	5.00000E+00	3.000E-02	1.895E-02		1.50000E+01	1.915E-02	1.421E-02
	6.00000E+00	2.741E-02	1.786E-02		2.00000E+01	1.786E-02	1.361E-02
	8.00000E+00	2.401E-02	1.639E-02				
	1.00000E+01	2.192E-02	1.547E-02				
	1.50000E+01	1.915E-02	1.421E-02				
	2.00000E+01	1.786E-02	1.361E-02				

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Bone, Cortical (ICRU-44)
HTML table format

	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
	1.00000E-03	3.781E+03	3.772E+03
	1.03542E-03	3.452E+03	3.444E+03
	1.07210E-03	3.150E+03	3.143E+03
11 K	1.07210E-03	3.156E+03	3.149E+03
	1.18283E-03	2.434E+03	2.429E+03
	1.30500E-03	1.873E+03	1.869E+03
12 K	1.30500E-03	1.883E+03	1.878E+03
	1.50000E-03	1.295E+03	1.291E+03
	2.00000E-03	5.869E+02	5.846E+02
	2.14550E-03	4.824E+02	4.803E+02
15 K	2.14550E-03	7.114E+02	6.961E+02

Bone, Cortical (ICRU-44)
ASCII format

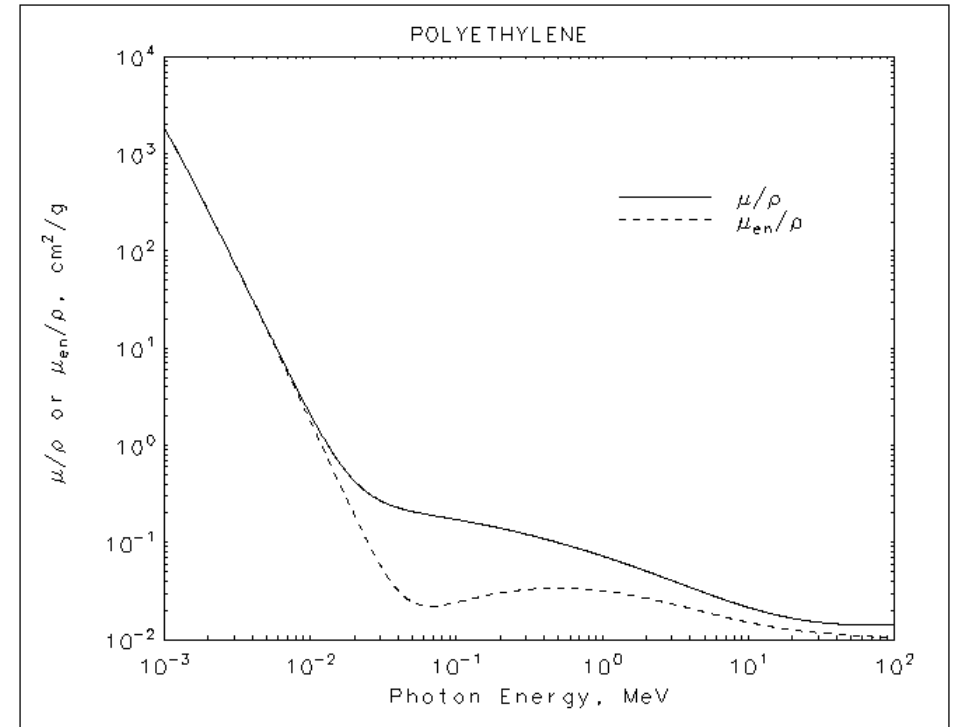
	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
	1.00000E-03	3.781E+03	3.772E+03
	1.03542E-03	3.452E+03	3.444E+03
	1.07210E-03	3.150E+03	3.143E+03
11 K	1.07210E-03	3.156E+03	3.149E+03
	1.18283E-03	2.434E+03	2.429E+03
	1.30500E-03	1.873E+03	1.869E+03
12 K	1.30500E-03	1.883E+03	1.878E+03
	1.50000E-03	1.295E+03	1.291E+03
	2.00000E-03	5.869E+02	5.846E+02
	2.14550E-03	4.824E+02	4.803E+02
15 K	2.14550E-03	7.114E+02	6.961E+02
	2.30297E-03	5.916E+02	5.789E+02
	2.47200E-03	4.907E+02	4.805E+02
16 K	2.47200E-03	4.962E+02	4.857E+02
	3.00000E-03	2.958E+02	2.897E+02

16 K	2.30297E-03	5.916E+02	5.789E+02	20 K	4.00000E-03	1.331E+02	1.303E+02
	2.47200E-03	4.907E+02	4.805E+02		4.03810E-03	1.296E+02	1.269E+02
	2.47200E-03	4.962E+02	4.857E+02		4.03810E-03	3.332E+02	3.006E+02
	3.00000E-03	2.958E+02	2.897E+02		5.00000E-03	1.917E+02	1.757E+02
	4.00000E-03	1.331E+02	1.303E+02		6.00000E-03	1.171E+02	1.085E+02
20 K	4.03810E-03	1.296E+02	1.269E+02		8.00000E-03	5.323E+01	4.987E+01
	4.03810E-03	3.332E+02	3.006E+02		1.00000E-02	2.851E+01	2.680E+01
	5.00000E-03	1.917E+02	1.757E+02		1.50000E-02	9.032E+00	8.388E+00
	6.00000E-03	1.171E+02	1.085E+02		2.00000E-02	4.001E+00	3.601E+00
	8.00000E-03	5.323E+01	4.987E+01		3.00000E-02	1.331E+00	1.070E+00
	1.00000E-02	2.851E+01	2.680E+01		4.00000E-02	6.655E-01	4.507E-01
	1.50000E-02	9.032E+00	8.388E+00		5.00000E-02	4.242E-01	2.336E-01
	2.00000E-02	4.001E+00	3.601E+00		6.00000E-02	3.148E-01	1.400E-01
	3.00000E-02	1.331E+00	1.070E+00		8.00000E-02	2.229E-01	6.896E-02
	4.00000E-02	6.655E-01	4.507E-01		1.00000E-01	1.855E-01	4.585E-02
	5.00000E-02	4.242E-01	2.336E-01		1.50000E-01	1.480E-01	3.183E-02
	6.00000E-02	3.148E-01	1.400E-01		2.00000E-01	1.309E-01	3.003E-02
	8.00000E-02	2.229E-01	6.896E-02		3.00000E-01	1.113E-01	3.032E-02
	1.00000E-01	1.855E-01	4.585E-02		4.00000E-01	9.908E-02	3.069E-02
	1.50000E-01	1.480E-01	3.183E-02		5.00000E-01	9.022E-02	3.073E-02
	2.00000E-01	1.309E-01	3.003E-02		6.00000E-01	8.332E-02	3.052E-02
	3.00000E-01	1.113E-01	3.032E-02		8.00000E-01	7.308E-02	2.973E-02
	4.00000E-01	9.908E-02	3.069E-02		1.00000E+00	6.566E-02	2.875E-02
	5.00000E-01	9.022E-02	3.073E-02		1.25000E+00	5.871E-02	2.745E-02
	6.00000E-01	8.332E-02	3.052E-02		1.50000E+00	5.346E-02	2.623E-02
	8.00000E-01	7.308E-02	2.973E-02		2.00000E+00	4.607E-02	2.421E-02
	1.00000E+00	6.566E-02	2.875E-02		3.00000E+00	3.745E-02	2.145E-02
	1.25000E+00	5.871E-02	2.745E-02		4.00000E+00	3.257E-02	1.975E-02
	1.50000E+00	5.346E-02	2.623E-02		5.00000E+00	2.946E-02	1.864E-02
	2.00000E+00	4.607E-02	2.421E-02		6.00000E+00	2.734E-02	1.788E-02
	3.00000E+00	3.745E-02	2.145E-02		8.00000E+00	2.467E-02	1.695E-02
	4.00000E+00	3.257E-02	1.975E-02		1.00000E+01	2.314E-02	1.644E-02
	5.00000E+00	2.946E-02	1.864E-02		1.50000E+01	2.132E-02	1.587E-02
	6.00000E+00	2.734E-02	1.788E-02		2.00000E+01	2.068E-02	1.568E-02

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Polyethylene
HTML table format

Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
1.00000E-03	1.894E+03	1.892E+03
1.50000E-03	5.999E+02	5.988E+02
2.00000E-03	2.593E+02	2.584E+02
3.00000E-03	7.743E+01	7.678E+01
4.00000E-03	3.242E+01	3.189E+01
5.00000E-03	1.643E+01	1.598E+01
6.00000E-03	9.432E+00	9.032E+00
8.00000E-03	3.975E+00	3.635E+00
1.00000E-02	2.088E+00	1.781E+00
1.50000E-02	7.452E-01	4.834E-01
2.00000E-02	4.315E-01	1.936E-01

Polyethylene
ASCII format

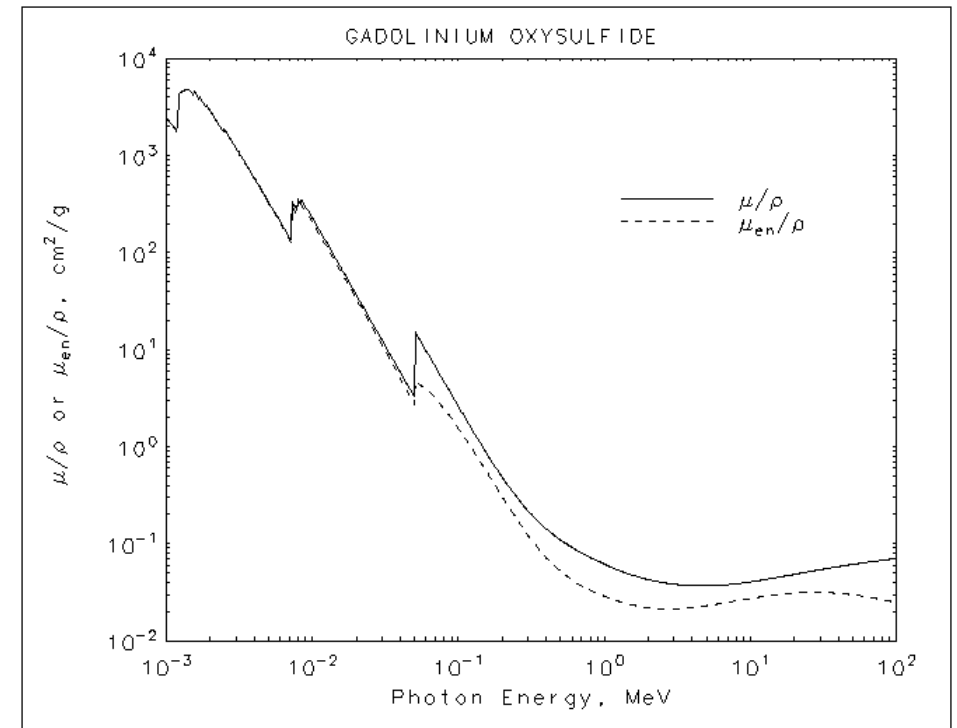
Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
1.00000E-03	1.894E+03	1.892E+03
1.50000E-03	5.999E+02	5.988E+02
2.00000E-03	2.593E+02	2.584E+02
3.00000E-03	7.743E+01	7.678E+01
4.00000E-03	3.242E+01	3.189E+01
5.00000E-03	1.643E+01	1.598E+01
6.00000E-03	9.432E+00	9.032E+00
8.00000E-03	3.975E+00	3.635E+00
1.00000E-02	2.088E+00	1.781E+00
1.50000E-02	7.452E-01	4.834E-01
2.00000E-02	4.315E-01	1.936E-01
3.00000E-02	2.706E-01	5.932E-02
4.00000E-02	2.275E-01	3.196E-02
5.00000E-02	2.084E-01	2.442E-02
6.00000E-02	1.970E-01	2.236E-02

3.00000E-02	2.706E-01	5.932E-02	8.00000E-02	1.823E-01	2.265E-02
4.00000E-02	2.275E-01	3.196E-02	1.00000E-01	1.719E-01	2.423E-02
5.00000E-02	2.084E-01	2.442E-02	1.50000E-01	1.534E-01	2.789E-02
6.00000E-02	1.970E-01	2.236E-02	2.00000E-01	1.402E-01	3.029E-02
8.00000E-02	1.823E-01	2.265E-02	3.00000E-01	1.217E-01	3.276E-02
1.00000E-01	1.719E-01	2.423E-02	4.00000E-01	1.089E-01	3.368E-02
1.50000E-01	1.534E-01	2.789E-02	5.00000E-01	9.947E-02	3.390E-02
2.00000E-01	1.402E-01	3.029E-02	6.00000E-01	9.198E-02	3.375E-02
3.00000E-01	1.217E-01	3.276E-02	8.00000E-01	8.078E-02	3.295E-02
4.00000E-01	1.089E-01	3.368E-02	1.00000E+00	7.262E-02	3.190E-02
5.00000E-01	9.947E-02	3.390E-02	1.25000E+00	6.495E-02	3.049E-02
6.00000E-01	9.198E-02	3.375E-02	1.50000E+00	5.910E-02	2.914E-02
8.00000E-01	8.078E-02	3.295E-02	2.00000E+00	5.064E-02	2.677E-02
1.00000E+00	7.262E-02	3.190E-02	3.00000E+00	4.045E-02	2.328E-02
1.25000E+00	6.495E-02	3.049E-02	4.00000E+00	3.444E-02	2.091E-02
1.50000E+00	5.910E-02	2.914E-02	5.00000E+00	3.045E-02	1.921E-02
2.00000E+00	5.064E-02	2.677E-02	6.00000E+00	2.760E-02	1.794E-02
3.00000E+00	4.045E-02	2.328E-02	8.00000E+00	2.383E-02	1.620E-02
4.00000E+00	3.444E-02	2.091E-02	1.00000E+01	2.145E-02	1.506E-02
5.00000E+00	3.045E-02	1.921E-02	1.50000E+01	1.819E-02	1.344E-02
6.00000E+00	2.760E-02	1.794E-02	2.00000E+01	1.658E-02	1.260E-02
8.00000E+00	2.383E-02	1.620E-02			
1.00000E+01	2.145E-02	1.506E-02			
1.50000E+01	1.819E-02	1.344E-02			
2.00000E+01	1.658E-02	1.260E-02			

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Gadolinium Oxysulfide
HTML table format

	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
	1.00000E-03	2.497E+03	2.487E+03
	1.08867E-03	2.103E+03	2.093E+03
	1.18520E-03	1.765E+03	1.756E+03
64 M5	1.18520E-03	1.984E+03	1.973E+03
	1.20109E-03	2.465E+03	2.450E+03
	1.21720E-03	3.644E+03	3.621E+03
64 M4	1.21720E-03	4.311E+03	4.282E+03
	1.50000E-03	4.390E+03	4.361E+03
	1.54400E-03	4.092E+03	4.065E+03
64 M3	1.54400E-03	4.699E+03	4.668E+03

Gadolinium Oxysulfide
ASCII format

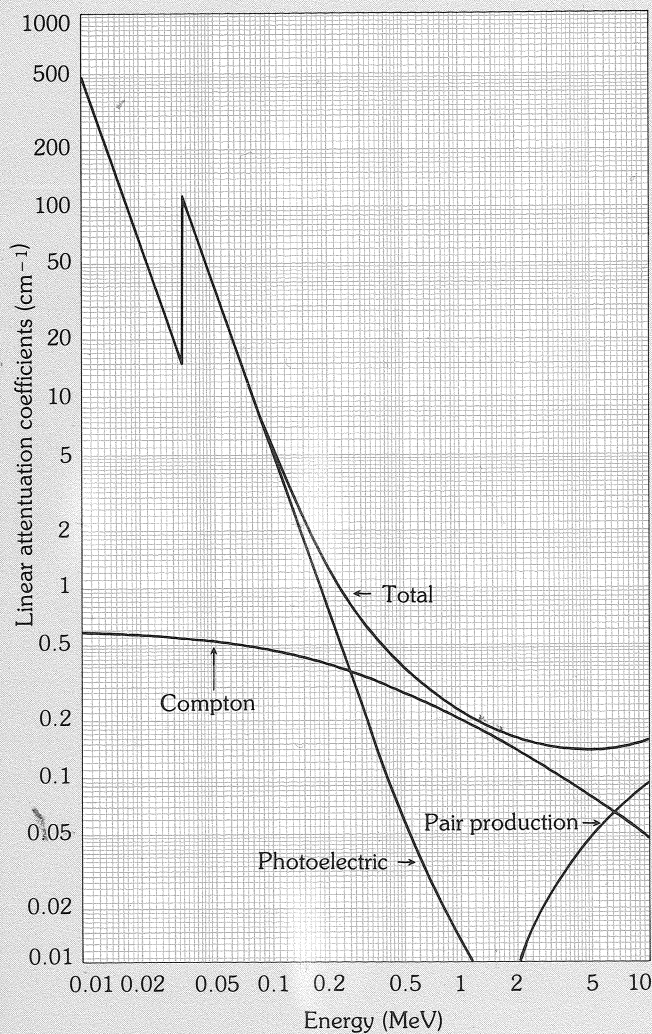
	Energy (MeV)	μ/ρ (cm ² /g)	μ_{en}/ρ (cm ² /g)
	1.00000E-03	2.497E+03	2.487E+03
	1.08867E-03	2.103E+03	2.093E+03
	1.18520E-03	1.765E+03	1.756E+03
64 M5	1.18520E-03	1.984E+03	1.973E+03
	1.20109E-03	2.465E+03	2.450E+03
	1.21720E-03	3.644E+03	3.621E+03
64 M4	1.21720E-03	4.311E+03	4.282E+03
	1.50000E-03	4.390E+03	4.361E+03
	1.54400E-03	4.092E+03	4.065E+03
64 M3	1.54400E-03	4.699E+03	4.668E+03
	1.61454E-03	4.235E+03	4.207E+03
	1.68830E-03	3.819E+03	3.793E+03
64 M2	1.68830E-03	4.046E+03	4.019E+03

	1.61454E-03	4.235E+03	4.207E+03		1.78195E-03	3.585E+03	3.562E+03
	1.68830E-03	3.819E+03	3.793E+03	64 M1	1.88080E-03	3.175E+03	3.154E+03
	1.68830E-03	4.046E+03	4.019E+03		1.88080E-03	3.311E+03	3.289E+03
	1.78195E-03	3.585E+03	3.562E+03		2.00000E-03	2.883E+03	2.863E+03
	1.88080E-03	3.175E+03	3.154E+03	16 K	2.47200E-03	1.752E+03	1.739E+03
	1.88080E-03	3.311E+03	3.289E+03		2.47200E-03	1.909E+03	1.885E+03
	2.00000E-03	2.883E+03	2.863E+03		3.00000E-03	1.205E+03	1.189E+03
	2.47200E-03	1.752E+03	1.739E+03		4.00000E-03	5.916E+02	5.822E+02
	2.47200E-03	1.909E+03	1.885E+03	64 L3	5.00000E-03	3.371E+02	3.302E+02
	3.00000E-03	1.205E+03	1.189E+03		6.00000E-03	2.118E+02	2.062E+02
	4.00000E-03	5.916E+02	5.822E+02		7.24280E-03	1.306E+02	1.261E+02
	5.00000E-03	3.371E+02	3.302E+02		7.24280E-03	3.312E+02	2.983E+02
	6.00000E-03	2.118E+02	2.062E+02		7.57876E-03	2.994E+02	2.667E+02
	7.24280E-03	1.306E+02	1.261E+02		7.93030E-03	2.625E+02	2.378E+02
	7.24280E-03	3.312E+02	2.983E+02	64 L2	7.93030E-03	3.539E+02	3.134E+02
	7.57876E-03	2.994E+02	2.667E+02		8.00000E-03	3.470E+02	3.074E+02
	7.93030E-03	2.625E+02	2.378E+02		8.37560E-03	3.096E+02	2.754E+02
	7.93030E-03	3.539E+02	3.134E+02	64 L1	8.37560E-03	3.560E+02	3.152E+02
	8.00000E-03	3.470E+02	3.074E+02		1.00000E-02	2.285E+02	2.053E+02
	8.37560E-03	3.096E+02	2.754E+02		1.50000E-02	7.902E+01	7.232E+01
	8.37560E-03	3.560E+02	3.152E+02		2.00000E-02	3.689E+01	3.376E+01
	1.00000E-02	2.285E+02	2.053E+02		3.00000E-02	1.254E+01	1.125E+01
	1.50000E-02	7.902E+01	7.232E+01		4.00000E-02	5.854E+00	5.084E+00
	2.00000E-02	3.689E+01	3.376E+01		5.00000E-02	3.274E+00	2.732E+00
	3.00000E-02	1.254E+01	1.125E+01		5.02391E-02	3.234E+00	2.695E+00
	4.00000E-02	5.854E+00	5.084E+00	64 K	5.02391E-02	1.555E+01	4.677E+00
	5.00000E-02	3.274E+00	2.732E+00		6.00000E-02	9.815E+00	3.946E+00
	5.02391E-02	3.234E+00	2.695E+00		8.00000E-02	4.666E+00	2.453E+00
	5.02391E-02	1.555E+01	4.677E+00		1.00000E-01	2.613E+00	1.545E+00
	6.00000E-02	9.815E+00	3.946E+00		1.50000E-01	9.381E-01	6.043E-01
	8.00000E-02	4.666E+00	2.453E+00		2.00000E-01	4.812E-01	3.035E-01
	1.00000E-01	2.613E+00	1.545E+00		3.00000E-01	2.185E-01	1.225E-01
	1.50000E-01	9.381E-01	6.043E-01		4.00000E-01	1.423E-01	7.211E-02
	2.00000E-01	4.812E-01	3.035E-01		5.00000E-01	1.095E-01	5.218E-02
	3.00000E-01	2.185E-01	1.225E-01		6.00000E-01	9.153E-02	4.240E-02
	4.00000E-01	1.423E-01	7.211E-02		8.00000E-01	7.225E-02	3.322E-02
	5.00000E-01	1.095E-01	5.218E-02		1.00000E+00	6.163E-02	2.883E-02
	6.00000E-01	9.153E-02	4.240E-02		1.25000E+00	5.335E-02	2.558E-02
	8.00000E-01	7.225E-02	3.322E-02		1.50000E+00	4.832E-02	2.367E-02
	1.00000E+00	6.163E-02	2.883E-02		2.00000E+00	4.271E-02	2.183E-02
	1.25000E+00	5.335E-02	2.558E-02		3.00000E+00	3.829E-02	2.129E-02
	1.50000E+00	4.832E-02	2.367E-02		4.00000E+00	3.699E-02	2.198E-02
	2.00000E+00	4.271E-02	2.183E-02		5.00000E+00	3.685E-02	2.297E-02
	3.00000E+00	3.829E-02	2.129E-02		6.00000E+00	3.722E-02	2.397E-02
	4.00000E+00	3.699E-02	2.198E-02		8.00000E+00	3.864E-02	2.579E-02
	5.00000E+00	3.685E-02	2.297E-02		1.00000E+01	4.038E-02	2.730E-02
	6.00000E+00	3.722E-02	2.397E-02		1.50000E+01	4.478E-02	2.985E-02
	8.00000E+00	3.864E-02	2.579E-02		2.00000E+01	4.837E-02	3.099E-02

1.00000E+01	4.038E-02	2.730E-02
1.50000E+01	4.478E-02	2.985E-02
2.00000E+01	4.837E-02	3.099E-02

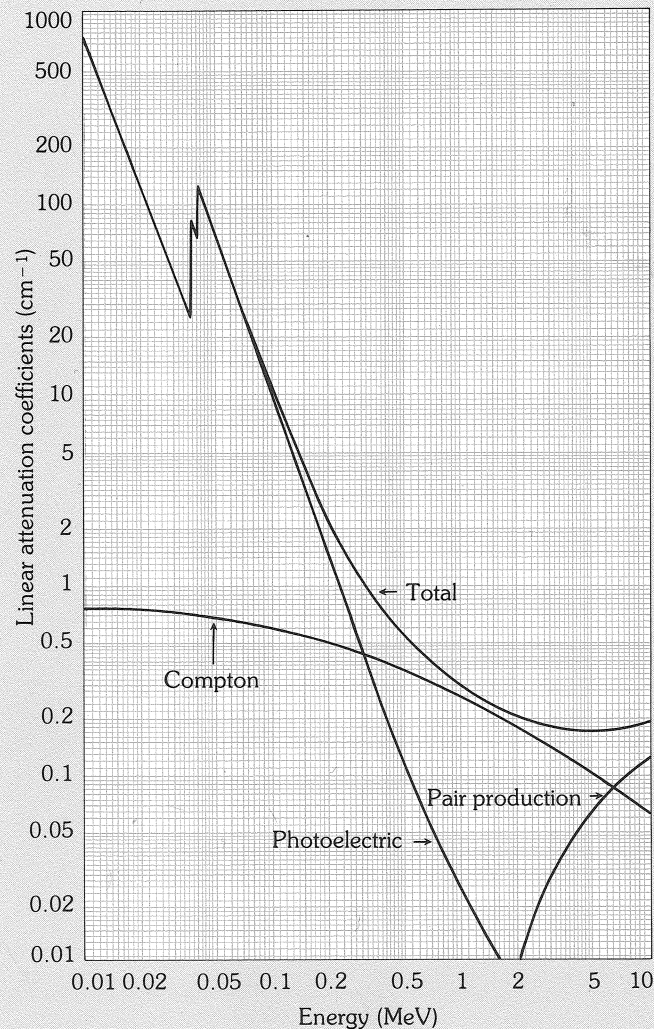
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NaI

Specific mass = 3670 kg/m^3
 Atomic Number: $Z(\text{I}) = 53$
 $Z(\text{Na}) = 11$

Electron Binding Energies:
 K-edge (I) = 33.17 keV
 L₁-edge (I) = 5.19 keV
 L₁₁-edge (I) = 4.85 keV
 L₁₁₁-edge (I) = 4.56 keV
 Average K X-Ray Energy (I) = 29.2 keV

CsI

Specific mass = 4510 kg/m^3
 Atomic number: $Z(\text{I}) = 53$
 $Z(\text{Cs}) = 55$

Electron Binding Energies:
 K-edge (I) = 33.17 keV
 K-edge (Cs) = 35.98 keV
 L₁-edge (Cs) = 5.72 keV
 L₁₁-edge (Cs) = 5.36 keV
 L₁₁₁-edge (Cs) = 5.01 keV
 Average K X-Ray Energy (Cs) = 31.6 keV