Table 303: Muons in Einsteinium

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
99 (Es)	[252.0830]	??	980.0	0.25952	3.0000	0.5697	3.0000	6.3488	0.00

T	p [MeV/c]	Ionization	Brems	Pair prod [MeV cm^2/g]	Photonucl	Total	CSDA range [g/cm^2]
10.0 MeV	4.704×10^1	3.635				3.635	1.620×10^0
14.0 MeV	5.616×10^1	2.918				2.918	2.858×10^0
20.0 MeV	6.802×10^1	2.338				2.338	5.178×10^0
30.0 MeV	8.509×10^1	1.857				1.857	1.004×10^1
40.0 MeV	1.003×10^2	1.609				1.609	1.586×10^1
80.0 MeV	1.527×10^2	1.246				1.246	4.493×10^1
100. MeV	1.764×10^2	1.182				1.183	6.145×10^1
140. MeV	2.218×10^2	1.125				1.125	9.629×10^1
200. MeV	2.868×10^2	1.103				1.103	1.503×10^2
213. MeV	3.008×10^2	1.102	0.000			1.103	*Minimum ionization*
300. MeV	3.917×10^2	1.116	0.000		0.000	1.116	2.407×10^2
400. MeV	4.945×10^2	1.142	0.000		0.000	1.142	3.292×10^2
800. MeV	8.995×10^2	1.236	0.001		0.000	1.237	6.648×10^2
1.00 GeV	1.101×10^3	1.271	0.002		0.000	1.273	8.241×10^2
1.40 GeV	1.502×10^3	1.325	0.003		0.000	1.328	1.131×10^3
2.00 GeV	2.103×10^3	1.382	0.005	0.001	0.001	1.389	1.573×10^3
3.00 GeV	3.104×10^3	1.445	0.008	0.003	0.001	1.458	2.274×10^3
4.00 GeV	4.104×10^3	1.488	0.012	0.006	0.001	1.509	2.948×10^3
8.00 GeV	8.105×10^3	1.583	0.029	0.024	0.003	1.640	5.480×10^3
10.0 GeV	1.011×10^4	1.611	0.039	0.034	0.004	1.689	6.681×10^3
14.0 GeV	1.411×10^4	1.651	0.060	0.056	0.005	1.773	8.991×10^3
20.0 GeV	2.011×10^4	1.690	0.093	0.093	0.007	1.885	1.227×10^4
30.0 GeV	3.011×10^4	1.731	0.153	0.166	0.011	2.061	1.734×10^4
40.0 GeV	4.011×10^4	1.758	0.216	0.246	0.014	2.235	2.200×10^4
80.0 GeV	8.011×10^4	1.818	0.488	0.599	0.027	2.934	3.758×10^4
100. GeV	1.001×10^5	1.837	0.632	0.790	0.034	3.295	4.401×10^4
123. GeV	1.230×10^5	1.854	0.800	1.012	0.041	3.709	*Muon critical energy*
140. GeV	1.401×10^5	1.864	0.928	1.183	0.047	4.025	5.498×10^4
200. GeV	2.001×10^5	1.893	1.391	1.807	0.067	5.160	6.812×10^4
300. GeV	3.001×10^5	1.926	2.180	2.847	0.100	7.055	8.465×10^4
400. GeV	4.001×10^5	1.949	2.995	3.926	0.134	9.006	9.717×10^4
800. GeV	8.001×10^5	2.005	6.355	8.349	0.271	16.982	1.290×10^5
1.00 TeV	1.000×10^6	2.023	8.079	10.612	0.340	21.057	1.396×10^5
1.40 TeV	1.400×10^6	2.051	11.533	15.122	0.482	29.190	1.556×10^5
2.00 TeV	2.000×10^6	2.081	16.811	22.006	0.697	41.596	1.728×10^5
3.00 TeV	3.000×10^6	2.116	25.615	33.441	1.065	62.238	1.923×10^5
4.00 TeV	4.000×10^6	2.140	34.530	44.998	1.438	83.108	2.062×10^5
8.00 TeV	8.000×10^6	2.201	70.446	91.444	2.985	167.078	2.394×10^5
10.0 TeV	1.000×10^7	2.221	88.533	114.787	3.778	209.321	2.501×10^5
14.0 TeV	1.400×10^7	2.252	124.607	161.367	5.406	293.635	2.662×10^5
20.0 TeV	2.000×10^7	2.285	179.012	231.532	7.900	420.731	2.831×10^5
30.0 TeV	3.000×10^7	2.323	269.672	348.258	12.204	632.459	3.024×10^5
40.0 TeV	4.000×10^7	2.350	360.654	465.252	16.608	844.866	3.160×10^5
80.0 TeV	8.000×10^7	2.418	724.557	933.539	34.978	1695.495	3.488×10^5
100. TeV	1.000×10^8	2.440	906.620	1167.890	44.460	2121.412	3.593×10^5