Table 049: Muons in Indium

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
49 (In)	114.818 (3)	7.310	488.0	0.23879	2.7144	0.2406	3.2032	5.5211	0.14

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	4.596				4.596	1.241×10^0
14.0 MeV	5.616×10^1	3.637				3.637	2.228×10^0
20.0 MeV	6.802×10^1	2.877				2.877	4.103×10^0
30.0 MeV	8.509×10^1	2.260				2.260	8.077×10^0
40.0 MeV	1.003×10^2	1.944				1.944	1.288×10^1
80.0 MeV	1.527×10^2	1.482				1.482	3.716×10^1
100. MeV	1.764×10^2	1.399				1.400	5.108×10^1
140. MeV	2.218×10^2	1.320				1.321	8.064×10^1
200. MeV	2.868×10^2	1.283				1.283	1.269×10^2
246. MeV	3.356×10^2	1.278				1.278	*Minimum ionization*
300. MeV	3.917×10^2	1.282	0.000		0.000	1.282	2.051×10^2
400. MeV	4.945×10^2	1.301	0.000		0.000	1.301	2.825×10^2
800. MeV	8.995×10^2	1.386	0.001		0.000	1.387	5.799×10^2
1.00 GeV	1.101×10^3	1.420	0.001		0.000	1.422	7.223×10^2
1.40 GeV	1.502×10^3	1.474	0.002	0.000	0.001	1.477	9.980×10^2
2.00 GeV	2.103×10^3	1.533	0.003	0.001	0.001	1.538	1.396×10^3
3.00 GeV	3.104×10^3	1.599	0.005	0.003	0.001	1.608	2.031×10^3
4.00 GeV	4.104×10^3	1.645	0.007	0.005	0.002	1.659	2.642×10^3
8.00 GeV	8.105×10^3	1.748	0.017	0.017	0.003	1.785	4.957×10^3
10.0 GeV	1.011×10^4	1.779	0.023	0.023	0.004	1.829	6.063×10^3
14.0 GeV	1.411×10^4	1.823	0.034	0.038	0.005	1.901	8.207×10^3
20.0 GeV	2.011×10^4	1.867	0.053	0.061	0.008	1.990	1.129×10^4
30.0 GeV	3.011×10^4	1.914	0.087	0.107	0.011	2.120	1.615×10^4
40.0 GeV	4.011×10^4	1.944	0.123	0.156	0.015	2.240	2.074×10^4
80.0 GeV	8.011×10^4	2.012	0.279	0.375	0.029	2.696	3.698×10^4
100. GeV	1.001×10^5	2.033	0.361	0.493	0.036	2.924	4.411×10^4
140. GeV	1.401×10^5	2.063	0.530	0.736	0.051	3.380	5.682×10^4
200. GeV	2.001×10^5	2.094	0.794	1.120	0.072	4.082	7.296×10^4
210. GeV	2.102×10^5	2.099	0.839	1.184	0.075	4.199	*Muon critical energy*
300. GeV	3.001×10^5	2.130	1.246	1.763	0.108	5.248	9.452×10^4
400. GeV	4.001×10^5	2.155	1.713	2.429	0.144	6.441	1.117×10^5
800. GeV	8.001×10^5	2.216	3.641	5.160	0.290	11.309	1.580×10^5
1.00 TeV	1.000×10^6	2.236	4.632	6.557	0.365	13.791	1.740×10^5
1.40 TeV	1.400×10^6	2.266	6.618	9.345	0.517	18.747	1.988×10^5
2.00 TeV	2.000×10^6	2.299	9.657	13.599	0.747	26.303	2.257×10^5
3.00 TeV	3.000×10^6	2.336	14.730	20.669	1.143	38.879	2.568×10^5
4.00 TeV	4.000×10^6	2.363	19.872	27.814	1.544	51.595	2.790×10^5
8.00 TeV	8.000×10^6	2.429	40.605	56.539	3.209	102.783	3.329×10^5
10.0 TeV	1.000×10^7	2.451	51.054	70.978	4.064	128.548	3.502×10^5
14.0 TeV	1.400×10^7	2.484	71.896	99.789	5.819	179.988	3.764×10^5
20.0 TeV	2.000×10^7	2.520	103.344	143.190	8.508	257.563	4.041×10^5
30.0 TeV	3.000×10^7	2.561	155.700	215.402	13.155	386.820	4.356×10^5
40.0 TeV	4.000×10^7	2.591	208.246	287.787	17.912	516.537	4.579×10^5
80.0 TeV	8.000×10^7	2.665	418.755	577.532	37.772	1036.725	5.115×10^5
100. TeV	1.000×10^8	2.689	524.190	722.540	48.030	1297.450	5.287×10^5