

**Table 049: Muons in Indium**

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	a	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
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 <sup>2</sup> /g]	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]		
10.0 MeV	$4.704 \times 10^1$	4.596				4.596	$1.241 \times 10^0$		
14.0 MeV	$5.616 \times 10^1$	3.637				3.637	$2.228 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	2.877				2.877	$4.103 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	2.260				2.260	$8.077 \times 10^0$		
40.0 MeV	$1.003 \times 10^2$	1.944				1.944	$1.288 \times 10^1$		
80.0 MeV	$1.527 \times 10^2$	1.482				1.482	$3.716 \times 10^1$		
100. MeV	$1.764 \times 10^2$	1.399				1.400	$5.108 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.320				1.321	$8.064 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.283				1.283	$1.269 \times 10^2$		
246. MeV	$3.356 \times 10^2$	1.278				1.278	<i>Minimum ionization</i>		
300. MeV	$3.917 \times 10^2$	1.282	0.000		0.000	1.282	$2.051 \times 10^2$		
400. MeV	$4.945 \times 10^2$	1.301	0.000		0.000	1.301	$2.825 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.386	0.001		0.000	1.387	$5.799 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.420	0.001		0.000	1.422	$7.223 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	1.474	0.002	0.000	0.001	1.477	$9.980 \times 10^2$		
2.00 GeV	$2.103 \times 10^3$	1.533	0.003	0.001	0.001	1.538	$1.396 \times 10^3$		
3.00 GeV	$3.104 \times 10^3$	1.599	0.005	0.003	0.001	1.608	$2.031 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	1.645	0.007	0.005	0.002	1.659	$2.642 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	1.748	0.017	0.017	0.003	1.785	$4.957 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	1.779	0.023	0.023	0.004	1.829	$6.063 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	1.823	0.034	0.038	0.005	1.901	$8.207 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	1.867	0.053	0.061	0.008	1.990	$1.129 \times 10^4$		
30.0 GeV	$3.011 \times 10^4$	1.914	0.087	0.107	0.011	2.120	$1.615 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	1.944	0.123	0.156	0.015	2.240	$2.074 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	2.012	0.279	0.375	0.029	2.696	$3.698 \times 10^4$		
100. GeV	$1.001 \times 10^5$	2.033	0.361	0.493	0.036	2.924	$4.411 \times 10^4$		
140. GeV	$1.401 \times 10^5$	2.063	0.530	0.736	0.051	3.380	$5.682 \times 10^4$		
200. GeV	$2.001 \times 10^5$	2.094	0.794	1.120	0.072	4.082	$7.296 \times 10^4$		
210. GeV	$2.102 \times 10^5$	2.099	0.839	1.184	0.075	4.199	<i>Muon critical energy</i>		
300. GeV	$3.001 \times 10^5$	2.130	1.246	1.763	0.108	5.248	$9.452 \times 10^4$		
400. GeV	$4.001 \times 10^5$	2.155	1.713	2.429	0.144	6.441	$1.117 \times 10^5$		
800. GeV	$8.001 \times 10^5$	2.216	3.641	5.160	0.290	11.309	$1.580 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.236	4.632	6.557	0.365	13.791	$1.740 \times 10^5$		
1.40 TeV	$1.400 \times 10^6$	2.266	6.618	9.345	0.517	18.747	$1.988 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.299	9.657	13.599	0.747	26.303	$2.257 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	2.336	14.730	20.669	1.143	38.879	$2.568 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	2.363	19.872	27.814	1.544	51.595	$2.790 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	2.429	40.605	56.539	3.209	102.783	$3.329 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	2.451	51.054	70.978	4.064	128.548	$3.502 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	2.484	71.896	99.789	5.819	179.988	$3.764 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	2.520	103.344	143.190	8.508	257.563	$4.041 \times 10^5$		
30.0 TeV	$3.000 \times 10^7$	2.561	155.700	215.402	13.155	386.820	$4.356 \times 10^5$		
40.0 TeV	$4.000 \times 10^7$	2.591	208.246	287.787	17.912	516.537	$4.579 \times 10^5$		
80.0 TeV	$8.000 \times 10^7$	2.665	418.755	577.532	37.772	1036.725	$5.115 \times 10^5$		
100. TeV	$1.000 \times 10^8$	2.689	524.190	722.540	48.030	1297.450	$5.287 \times 10^5$		