

Muons in tin (Sn)

Z	A [g/mol]	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
50 (Sn)	118.710(7)	7.310	488.0	0.18689	2.8576	0.2879	3.2959	5.5340	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	4.538				4.538	1.256×10^0		
14.0 MeV	5.616×10^1	3.591				3.591	2.257×10^0		
20.0 MeV	6.802×10^1	2.840				2.840	4.156×10^0		
30.0 MeV	8.509×10^1	2.231				2.231	8.181×10^0		
40.0 MeV	1.003×10^2	1.920				1.920	1.304×10^1		
80.0 MeV	1.527×10^2	1.464				1.464	3.762×10^1		
100. MeV	1.764×10^2	1.383				1.383	5.171×10^1		
140. MeV	2.218×10^2	1.305				1.305	8.161×10^1		
200. MeV	2.868×10^2	1.268				1.268	1.284×10^2		
246. MeV	3.356×10^2	1.263				1.264	<i>Minimum ionization</i>		
300. MeV	3.917×10^2	1.268	0.000		0.000	1.268	2.074×10^2		
400. MeV	4.945×10^2	1.286	0.000		0.000	1.287	2.858×10^2		
800. MeV	8.995×10^2	1.371	0.001		0.000	1.372	5.864×10^2		
1.00 GeV	1.101×10^3	1.404	0.001		0.000	1.406	7.304×10^2		
1.40 GeV	1.502×10^3	1.458	0.002	0.000	0.001	1.460	1.009×10^3		
2.00 GeV	2.103×10^3	1.515	0.003	0.001	0.001	1.520	1.412×10^3		
3.00 GeV	3.104×10^3	1.580	0.005	0.003	0.001	1.590	2.054×10^3		
4.00 GeV	4.104×10^3	1.625	0.007	0.005	0.002	1.639	2.673×10^3		
8.00 GeV	8.105×10^3	1.727	0.017	0.017	0.003	1.764	5.016×10^3		
10.0 GeV	1.011×10^4	1.757	0.023	0.023	0.004	1.807	6.136×10^3		
14.0 GeV	1.411×10^4	1.800	0.035	0.038	0.005	1.879	8.305×10^3		
20.0 GeV	2.011×10^4	1.844	0.054	0.062	0.008	1.967	1.142×10^4		
30.0 GeV	3.011×10^4	1.889	0.088	0.107	0.011	2.096	1.634×10^4		
40.0 GeV	4.011×10^4	1.919	0.124	0.157	0.015	2.216	2.098×10^4		
80.0 GeV	8.011×10^4	1.987	0.280	0.377	0.029	2.674	3.738×10^4		
100. GeV	1.001×10^5	2.007	0.363	0.495	0.036	2.902	4.456×10^4		
140. GeV	1.401×10^5	2.037	0.533	0.739	0.050	3.360	5.736×10^4		
200. GeV	2.001×10^5	2.068	0.798	1.125	0.072	4.064	7.358×10^4		
207. GeV	2.069×10^5	2.071	0.829	1.168	0.074	4.143	<i>Muon critical energy</i>		
300. GeV	3.001×10^5	2.103	1.252	1.770	0.107	5.234	9.522×10^4		
400. GeV	4.001×10^5	2.128	1.721	2.439	0.143	6.432	1.124×10^5		
800. GeV	8.001×10^5	2.188	3.658	5.181	0.290	11.318	1.587×10^5		
1.00 TeV	1.000×10^6	2.208	4.654	6.584	0.364	13.811	1.747×10^5		
1.40 TeV	1.400×10^6	2.237	6.650	9.383	0.515	18.787	1.994×10^5		
2.00 TeV	2.000×10^6	2.269	9.702	13.654	0.745	26.373	2.263×10^5		
3.00 TeV	3.000×10^6	2.306	14.799	20.753	1.139	38.999	2.573×10^5		
4.00 TeV	4.000×10^6	2.333	19.965	27.927	1.540	51.766	2.795×10^5		
8.00 TeV	8.000×10^6	2.398	40.794	56.765	3.200	103.159	3.331×10^5		
10.0 TeV	1.000×10^7	2.420	51.291	71.262	4.052	129.026	3.504×10^5		
14.0 TeV	1.400×10^7	2.452	72.229	100.187	5.801	180.671	3.765×10^5		
20.0 TeV	2.000×10^7	2.488	103.822	143.762	8.482	258.555	4.041×10^5		
30.0 TeV	3.000×10^7	2.529	156.417	216.262	13.115	388.323	4.355×10^5		
40.0 TeV	4.000×10^7	2.558	209.202	288.934	17.857	518.552	4.577×10^5		
80.0 TeV	8.000×10^7	2.631	420.667	579.828	37.655	1040.782	5.111×10^5		
100. TeV	1.000×10^8	2.655	526.580	725.410	47.880	1302.526	5.282×10^5		