

Table 317: Muons in Element 113

Z	A [g/mol]	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
113 (Un)	[284.178 (6)]	??	1171.0	0.28517	3.0000	0.6818	3.0000	6.6925	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	3.490				3.490	1.714×10^0		
14.0 MeV	5.616×10^1	2.823				2.823	2.999×10^0		
20.0 MeV	6.802×10^1	2.275				2.275	5.389×10^0		
30.0 MeV	8.509×10^1	1.816				1.816	1.037×10^1		
40.0 MeV	1.003×10^2	1.578				1.578	1.631×10^1		
80.0 MeV	1.527×10^2	1.227				1.227	4.587×10^1		
100. MeV	1.764×10^2	1.167				1.167	6.262×10^1		
140. MeV	2.218×10^2	1.111				1.111	9.790×10^1		
200. MeV	2.868×10^2	1.091	0.000			1.092	1.525×10^2		
207. MeV	2.943×10^2	1.091	0.000			1.092	<i>Minimum ionization</i>		
300. MeV	3.917×10^2	1.106	0.000		0.000	1.107	2.437×10^2		
400. MeV	4.945×10^2	1.134	0.000		0.000	1.135	3.330×10^2		
800. MeV	8.995×10^2	1.236	0.001		0.000	1.238	6.693×10^2		
1.00 GeV	1.101×10^3	1.273	0.002		0.000	1.276	8.284×10^2		
1.40 GeV	1.502×10^3	1.331	0.003		0.000	1.335	1.134×10^3		
2.00 GeV	2.103×10^3	1.391	0.005	0.000	0.001	1.398	1.573×10^3		
3.00 GeV	3.104×10^3	1.457	0.009	0.003	0.001	1.471	2.269×10^3		
4.00 GeV	4.104×10^3	1.502	0.014	0.006	0.001	1.524	2.937×10^3		
8.00 GeV	8.105×10^3	1.600	0.034	0.025	0.003	1.663	5.440×10^3		
10.0 GeV	1.011×10^4	1.629	0.045	0.036	0.004	1.715	6.624×10^3		
14.0 GeV	1.411×10^4	1.670	0.068	0.061	0.005	1.805	8.895×10^3		
20.0 GeV	2.011×10^4	1.710	0.107	0.101	0.007	1.926	1.211×10^4		
30.0 GeV	3.011×10^4	1.752	0.175	0.182	0.010	2.120	1.706×10^4		
40.0 GeV	4.011×10^4	1.779	0.247	0.270	0.014	2.312	2.157×10^4		
80.0 GeV	8.011×10^4	1.840	0.559	0.663	0.027	3.091	3.649×10^4		
100. GeV	1.001×10^5	1.859	0.724	0.876	0.033	3.495	4.258×10^4		
112. GeV	1.122×10^5	1.869	0.826	1.006	0.037	3.739	<i>Muon critical energy</i>		
140. GeV	1.401×10^5	1.887	1.063	1.314	0.047	4.312	5.287×10^4		
200. GeV	2.001×10^5	1.916	1.593	2.009	0.066	5.586	6.507×10^4		
300. GeV	3.001×10^5	1.949	2.496	3.169	0.099	7.715	8.025×10^4		
400. GeV	4.001×10^5	1.973	3.428	4.372	0.133	9.907	9.167×10^4		
800. GeV	8.001×10^5	2.029	7.273	9.305	0.268	18.877	1.204×10^5		
1.00 TeV	1.000×10^6	2.048	9.245	11.829	0.336	23.460	1.299×10^5		
1.40 TeV	1.400×10^6	2.076	13.194	16.860	0.476	32.608	1.443×10^5		
2.00 TeV	2.000×10^6	2.106	19.228	24.539	0.689	46.564	1.597×10^5		
3.00 TeV	3.000×10^6	2.141	29.292	37.295	1.053	69.783	1.771×10^5		
4.00 TeV	4.000×10^6	2.166	39.482	50.188	1.422	93.260	1.894×10^5		
8.00 TeV	8.000×10^6	2.228	80.524	102.002	2.951	187.707	2.191×10^5		
10.0 TeV	1.000×10^7	2.248	101.189	128.044	3.735	235.219	2.286×10^5		
14.0 TeV	1.400×10^7	2.279	142.407	180.009	5.343	330.040	2.429×10^5		
20.0 TeV	2.000×10^7	2.313	204.562	258.286	7.806	472.969	2.580×10^5		
30.0 TeV	3.000×10^7	2.351	308.136	388.503	12.059	711.052	2.751×10^5		
40.0 TeV	4.000×10^7	2.379	412.071	519.020	16.411	949.883	2.872×10^5		
80.0 TeV	8.000×10^7	2.447	827.765	1041.439	34.562	1906.216	3.164×10^5		
100. TeV	1.000×10^8	2.470	1035.730	1302.880	43.930	2385.012	3.257×10^5		