

Table 319: Muons in Element 115

Z	A [g/mol]	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
115 (Un)	[288.192 (6)]	??	1199.0	0.28871	3.0000	0.6960	3.0000	6.7363	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	3.475				3.475	1.726×10^0		
14.0 MeV	5.616×10^1	2.815				2.815	3.016×10^0		
20.0 MeV	6.802×10^1	2.270				2.270	5.411×10^0		
30.0 MeV	8.509×10^1	1.814				1.814	1.040×10^1		
40.0 MeV	1.003×10^2	1.576				1.576	1.635×10^1		
80.0 MeV	1.527×10^2	1.227				1.227	4.592×10^1		
100. MeV	1.764×10^2	1.167				1.167	6.268×10^1		
140. MeV	2.218×10^2	1.112				1.112	9.795×10^1		
200. MeV	2.868×10^2	1.092	0.000			1.092	1.526×10^2		
206. MeV	2.933×10^2	1.092	0.000			1.092	<i>Minimum ionization</i>		
300. MeV	3.917×10^2	1.107	0.000		0.000	1.107	2.437×10^2		
400. MeV	4.945×10^2	1.135	0.000		0.000	1.136	3.329×10^2		
800. MeV	8.995×10^2	1.238	0.001		0.000	1.240	6.688×10^2		
1.00 GeV	1.101×10^3	1.276	0.002		0.000	1.279	8.275×10^2		
1.40 GeV	1.502×10^3	1.334	0.003		0.000	1.338	1.133×10^3		
2.00 GeV	2.103×10^3	1.395	0.005	0.000	0.001	1.401	1.571×10^3		
3.00 GeV	3.104×10^3	1.461	0.009	0.003	0.001	1.475	2.265×10^3		
4.00 GeV	4.104×10^3	1.506	0.014	0.006	0.001	1.529	2.930×10^3		
8.00 GeV	8.105×10^3	1.605	0.034	0.025	0.003	1.669	5.425×10^3		
10.0 GeV	1.011×10^4	1.634	0.046	0.037	0.004	1.721	6.604×10^3		
14.0 GeV	1.411×10^4	1.675	0.070	0.061	0.005	1.813	8.867×10^3		
20.0 GeV	2.011×10^4	1.716	0.109	0.103	0.007	1.935	1.207×10^4		
30.0 GeV	3.011×10^4	1.757	0.178	0.184	0.010	2.132	1.699×10^4		
40.0 GeV	4.011×10^4	1.785	0.252	0.274	0.014	2.326	2.148×10^4		
80.0 GeV	8.011×10^4	1.847	0.570	0.673	0.027	3.119	3.629×10^4		
100. GeV	1.001×10^5	1.865	0.739	0.889	0.033	3.529	4.231×10^4		
111. GeV	1.109×10^5	1.874	0.831	1.007	0.037	3.750	<i>Muon critical energy</i>		
140. GeV	1.401×10^5	1.893	1.084	1.334	0.047	4.360	5.250×10^4		
200. GeV	2.001×10^5	1.923	1.625	2.040	0.066	5.656	6.456×10^4		
300. GeV	3.001×10^5	1.956	2.546	3.219	0.099	7.822	7.954×10^4		
400. GeV	4.001×10^5	1.979	3.497	4.441	0.132	10.052	9.079×10^4		
800. GeV	8.001×10^5	2.036	7.418	9.454	0.267	19.178	1.191×10^5		
1.00 TeV	1.000×10^6	2.055	9.430	12.019	0.336	23.842	1.285×10^5		
1.40 TeV	1.400×10^6	2.083	13.457	17.131	0.476	33.149	1.426×10^5		
2.00 TeV	2.000×10^6	2.114	19.611	24.934	0.688	47.349	1.577×10^5		
3.00 TeV	3.000×10^6	2.149	29.875	37.897	1.051	70.974	1.749×10^5		
4.00 TeV	4.000×10^6	2.174	40.266	50.998	1.420	94.860	1.870×10^5		
8.00 TeV	8.000×10^6	2.236	82.121	103.652	2.947	190.958	2.161×10^5		
10.0 TeV	1.000×10^7	2.256	103.195	130.116	3.730	239.299	2.255×10^5		
14.0 TeV	1.400×10^7	2.287	145.228	182.922	5.336	335.776	2.395×10^5		
20.0 TeV	2.000×10^7	2.320	208.612	262.468	7.796	481.199	2.544×10^5		
30.0 TeV	3.000×10^7	2.359	314.232	394.792	12.043	723.429	2.712×10^5		
40.0 TeV	4.000×10^7	2.387	420.220	527.420	16.388	966.417	2.831×10^5		
80.0 TeV	8.000×10^7	2.456	844.120	1058.295	34.514	1939.388	3.117×10^5		
100. TeV	1.000×10^8	2.479	1056.190	1323.970	43.870	2426.511	3.209×10^5		