

Muons in livermorium (Lv)

Z	A [g/mol]	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
116 (Lv)	[293.200 (8)]	??	1213.0	0.29132	3.0000	0.7064	3.0000	6.7681	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	3.432				3.432	1.750×10^0		
14.0 MeV	5.616×10^1	2.782				2.782	3.056×10^0		
20.0 MeV	6.802×10^1	2.245				2.245	5.479×10^0		
30.0 MeV	8.509×10^1	1.794				1.794	1.052×10^1		
40.0 MeV	1.003×10^2	1.559				1.560	1.653×10^1		
80.0 MeV	1.527×10^2	1.214				1.214	4.643×10^1		
100. MeV	1.764×10^2	1.155				1.155	6.335×10^1		
140. MeV	2.218×10^2	1.100				1.100	9.899×10^1		
200. MeV	2.868×10^2	1.081	0.000			1.081	1.542×10^2		
206. MeV	2.933×10^2	1.081	0.000			1.081	<i>Minimum ionization</i>		
300. MeV	3.917×10^2	1.096	0.000		0.000	1.096	2.462×10^2		
400. MeV	4.945×10^2	1.124	0.000		0.000	1.125	3.363×10^2		
800. MeV	8.995×10^2	1.227	0.001		0.000	1.229	6.754×10^2		
1.00 GeV	1.101×10^3	1.264	0.002		0.000	1.267	8.356×10^2		
1.40 GeV	1.502×10^3	1.322	0.003		0.000	1.326	1.144×10^3		
2.00 GeV	2.103×10^3	1.382	0.005		0.001	1.389	1.585×10^3		
3.00 GeV	3.104×10^3	1.449	0.009	0.003	0.001	1.463	2.286×10^3		
4.00 GeV	4.104×10^3	1.493	0.014	0.006	0.001	1.516	2.957×10^3		
8.00 GeV	8.105×10^3	1.592	0.034	0.025	0.003	1.655	5.472×10^3		
10.0 GeV	1.011×10^4	1.621	0.046	0.037	0.004	1.708	6.661×10^3		
14.0 GeV	1.411×10^4	1.661	0.070	0.061	0.005	1.798	8.942×10^3		
20.0 GeV	2.011×10^4	1.701	0.109	0.102	0.007	1.920	1.217×10^4		
30.0 GeV	3.011×10^4	1.743	0.178	0.183	0.010	2.116	1.713×10^4		
40.0 GeV	4.011×10^4	1.770	0.252	0.273	0.014	2.310	2.165×10^4		
80.0 GeV	8.011×10^4	1.831	0.570	0.671	0.027	3.101	3.655×10^4		
100. GeV	1.001×10^5	1.850	0.738	0.887	0.033	3.510	4.261×10^4		
110. GeV	1.103×10^5	1.858	0.825	0.997	0.037	3.718	<i>Muon critical energy</i>		
140. GeV	1.401×10^5	1.878	1.083	1.330	0.046	4.340	5.285×10^4		
200. GeV	2.001×10^5	1.907	1.623	2.035	0.066	5.633	6.496×10^4		
300. GeV	3.001×10^5	1.940	2.543	3.210	0.099	7.794	8.000×10^4		
400. GeV	4.001×10^5	1.963	3.494	4.430	0.132	10.021	9.129×10^4		
800. GeV	8.001×10^5	2.019	7.411	9.430	0.267	19.130	1.197×10^5		
1.00 TeV	1.000×10^6	2.038	9.420	11.989	0.335	23.785	1.291×10^5		
1.40 TeV	1.400×10^6	2.066	13.444	17.089	0.475	33.076	1.433×10^5		
2.00 TeV	2.000×10^6	2.096	19.591	24.874	0.687	47.250	1.584×10^5		
3.00 TeV	3.000×10^6	2.131	29.844	37.805	1.049	70.832	1.756×10^5		
4.00 TeV	4.000×10^6	2.156	40.225	50.875	1.417	94.676	1.877×10^5		
8.00 TeV	8.000×10^6	2.217	82.037	103.402	2.941	190.600	2.169×10^5		
10.0 TeV	1.000×10^7	2.237	103.089	129.803	3.723	238.855	2.263×10^5		
14.0 TeV	1.400×10^7	2.268	145.078	182.482	5.326	335.156	2.403×10^5		
20.0 TeV	2.000×10^7	2.301	208.394	261.836	7.782	480.316	2.552×10^5		
30.0 TeV	3.000×10^7	2.340	313.904	393.843	12.022	722.111	2.721×10^5		
40.0 TeV	4.000×10^7	2.367	419.781	526.153	16.360	964.663	2.840×10^5		
80.0 TeV	8.000×10^7	2.435	843.235	1055.754	34.453	1935.879	3.127×10^5		
100. TeV	1.000×10^8	2.458	1055.080	1320.790	43.790	2422.120	3.219×10^5		