

Muons in tennessee (Ts)

Z	A [g/mol]	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
117 (Ts)	[294.2105(7)]	??	1227.0	0.29274	3.0000	0.7120	3.0000	6.7851	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	3.439				3.439	1.749×10^0
14.0 MeV	5.616×10^1	2.789				2.789	3.051×10^0
20.0 MeV	6.802×10^1	2.251				2.252	5.468×10^0
30.0 MeV	8.509×10^1	1.800				1.800	1.049×10^1
40.0 MeV	1.003×10^2	1.565				1.565	1.648×10^1
80.0 MeV	1.527×10^2	1.219				1.219	4.626×10^1
100. MeV	1.764×10^2	1.159				1.159	6.312×10^1
140. MeV	2.218×10^2	1.105				1.105	9.860×10^1
200. MeV	2.868×10^2	1.086	0.000			1.086	1.535×10^2
206. MeV	2.933×10^2	1.086	0.000			1.086	<i>Minimum ionization</i>
300. MeV	3.917×10^2	1.101	0.000		0.000	1.101	2.452×10^2
400. MeV	4.945×10^2	1.129	0.000		0.000	1.130	3.349×10^2
800. MeV	8.995×10^2	1.233	0.001		0.000	1.235	6.724×10^2
1.00 GeV	1.101×10^3	1.271	0.002		0.000	1.273	8.318×10^2
1.40 GeV	1.502×10^3	1.329	0.003		0.000	1.333	1.138×10^3
2.00 GeV	2.103×10^3	1.390	0.005		0.001	1.396	1.578×10^3
3.00 GeV	3.104×10^3	1.457	0.010	0.003	0.001	1.470	2.274×10^3
4.00 GeV	4.104×10^3	1.502	0.014	0.006	0.001	1.524	2.942×10^3
8.00 GeV	8.105×10^3	1.601	0.035	0.025	0.003	1.665	5.443×10^3
10.0 GeV	1.011×10^4	1.630	0.046	0.037	0.004	1.717	6.625×10^3
14.0 GeV	1.411×10^4	1.671	0.071	0.062	0.005	1.809	8.893×10^3
20.0 GeV	2.011×10^4	1.711	0.110	0.103	0.007	1.932	1.210×10^4
30.0 GeV	3.011×10^4	1.753	0.180	0.185	0.010	2.130	1.703×10^4
40.0 GeV	4.011×10^4	1.780	0.255	0.276	0.014	2.326	2.152×10^4
80.0 GeV	8.011×10^4	1.842	0.577	0.678	0.027	3.125	3.631×10^4
100. GeV	1.001×10^5	1.861	0.748	0.896	0.033	3.539	4.232×10^4
110. GeV	1.098×10^5	1.868	0.831	1.001	0.036	3.739	<i>Muon critical energy</i>
140. GeV	1.401×10^5	1.888	1.097	1.344	0.046	4.378	5.247×10^4
200. GeV	2.001×10^5	1.918	1.644	2.056	0.066	5.685	6.447×10^4
300. GeV	3.001×10^5	1.951	2.575	3.244	0.099	7.871	7.937×10^4
400. GeV	4.001×10^5	1.974	3.538	4.476	0.132	10.122	9.055×10^4
800. GeV	8.001×10^5	2.031	7.504	9.530	0.267	19.334	1.187×10^5
1.00 TeV	1.000×10^6	2.050	9.539	12.115	0.335	24.042	1.279×10^5
1.40 TeV	1.400×10^6	2.078	13.613	17.269	0.475	33.436	1.420×10^5
2.00 TeV	2.000×10^6	2.108	19.838	25.134	0.687	47.769	1.569×10^5
3.00 TeV	3.000×10^6	2.143	30.219	38.203	1.049	71.617	1.739×10^5
4.00 TeV	4.000×10^6	2.168	40.729	51.412	1.417	95.729	1.860×10^5
8.00 TeV	8.000×10^6	2.230	83.063	104.492	2.941	192.728	2.148×10^5
10.0 TeV	1.000×10^7	2.250	104.378	131.168	3.722	241.521	2.241×10^5
14.0 TeV	1.400×10^7	2.281	146.891	184.409	5.325	338.908	2.380×10^5
20.0 TeV	2.000×10^7	2.314	210.998	264.612	7.780	485.707	2.527×10^5
30.0 TeV	3.000×10^7	2.353	317.823	398.015	12.018	730.211	2.694×10^5
40.0 TeV	4.000×10^7	2.381	425.019	531.723	16.353	975.478	2.812×10^5
80.0 TeV	8.000×10^7	2.449	853.752	1066.933	34.437	1957.574	3.095×10^5
100. TeV	1.000×10^8	2.472	1068.240	1334.780	43.770	2449.265	3.187×10^5