Muons in thallium (Tl)

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
81 (Tl)	204.3833 (2)	11.720	810.0	0.09455	3.1450	0.3491	3.8044	6.1365	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	3.843				3.843	1.514×10^0
14.0 MeV	5.616×10^1	3.069				3.069	2.690×10^0
20.0 MeV	6.802×10^1	2.447				2.447	4.902×10^0
30.0 MeV	8.509×10^1	1.935				1.935	9.555×10^0
40.0 MeV	1.003×10^2	1.672				1.673	1.515×10^1
80.0 MeV	1.527×10^2	1.287				1.287	4.322×10^1
100. MeV	1.764×10^2	1.219				1.219	5.922×10^1
140. MeV	2.218×10^2	1.154				1.155	9.308×10^1
200. MeV	2.868×10^2	1.127				1.127	1.459×10^2
227. MeV	3.154×10^2	1.125	0.000			1.125	*Minimum ionization*
300. MeV	3.917×10^2	1.132	0.000		0.000	1.133	2.346×10^2
400. MeV	4.945×10^2	1.153	0.000		0.000	1.154	3.221×10^2
800. MeV	8.995×10^2	1.238	0.001		0.000	1.239	6.560×10^2
1.00 GeV	1.101×10^3	1.271	0.001		0.000	1.273	8.151×10^2
1.40 GeV	1.502×10^3	1.323	0.002		0.001	1.326	1.123×10^3
2.00 GeV	2.103×10^3	1.379	0.004	0.001	0.001	1.385	1.565×10^3
3.00 GeV	3.104×10^3	1.443	0.007	0.003	0.001	1.454	2.268×10^3
4.00 GeV	4.104×10^3	1.486	0.010	0.006	0.002	1.505	2.943×10^3
8.00 GeV	8.105×10^3	1.585	0.025	0.022	0.003	1.636	5.483×10^3
10.0 GeV	1.011×10^4	1.615	0.033	0.031	0.004	1.683	6.688×10^3
14.0 GeV	1.411×10^4	1.658	0.050	0.051	0.005	1.764	9.007×10^3
20.0 GeV	2.011×10^4	1.700	0.078	0.083	0.007	1.870	1.231×10^4
30.0 GeV	3.011×10^4	1.745	0.128	0.147	0.011	2.031	1.744×10^4
40.0 GeV	4.011×10^4	1.775	0.181	0.216	0.014	2.187	2.218×10^4
80.0 GeV	8.011×10^4	1.841	0.410	0.523	0.028	2.803	3.829×10^4
100. GeV	1.001×10^5	1.861	0.531	0.689	0.034	3.116	4.506×10^4
140. GeV	1.401×10^5	1.890	0.779	1.030	0.048	3.748	5.675×10^4
142. GeV	1.424×10^5	1.891	0.793	1.050	0.049	3.784	*Muon critical energy*
200. GeV	2.001×10^5	1.920	1.167	1.570	0.068	4.727	7.098×10^4
300. GeV	3.001×10^5	1.953	1.830	2.472	0.102	6.359	8.917×10^4
400. GeV	4.001×10^5	1.977	2.514	3.407	0.137	8.036	1.031×10^5
800. GeV	8.001×10^5	2.034	5.338	7.238	0.276	14.888	1.392×10^5
1.00 TeV	1.000×10^6	2.052	6.788	9.198	0.347	18.386	1.512×10^5
1.40 TeV	1.400×10^6	2.080	9.692	13.105	0.491	25.370	1.697×10^5
2.00 TeV	2.000×10^6	2.110	14.131	19.067	0.710	36.021	1.894×10^5
3.00 TeV	3.000×10^6	2.145	21.539	28.974	1.086	53.746	2.120×10^5
4.00 TeV	4.000×10^6	2.170	29.042	38.985	1.467	71.665	2.281×10^5
8.00 TeV	8.000×10^6	2.232	59.276	79.219	3.045	143.773	2.667×10^5
10.0 TeV	1.000×10^7	2.252	74.504	99.440	3.855	180.053	2.791×10^5
14.0 TeV	1.400×10^7	2.283	104.878	139.790	5.517	252.469	2.978×10^5
20.0 TeV	2.000×10^7	2.316	150.692	200.570	8.062	361.642	3.175×10^5
30.0 TeV	3.000×10^7	2.354	226.962	301.690	12.457	543.465	3.399×10^5
40.0 TeV	4.000×10^7	2.382	303.490	403.043	16.953	725.870	3.558×10^5
80.0 TeV	8.000×10^7	2.450	610.012	808.733	35.715	1456.912	3.939×10^5
100. TeV	1.000×10^8	2.473	763.510	1011.760	45.400	1823.145	4.062×10^5