Muons in lead (Pb)

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
82 (Pb)	207.2(1)	11.350	823.0	0.09359	3.1608	0.3776	3.8073	6.2018	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	3.823				3.823	1.524×10^0
14.0 MeV	5.616×10^1	3.054				3.054	2.705×10^0
20.0 MeV	6.802×10^1	2.436				2.436	4.927×10^0
30.0 MeV	8.509×10^1	1.928				1.928	9.600×10^0
40.0 MeV	1.003×10^2	1.666				1.666	1.521×10^1
80.0 MeV	1.527×10^2	1.283				1.283	4.338×10^1
100. MeV	1.764×10^2	1.215				1.215	5.943×10^1
140. MeV	2.218×10^2	1.151				1.152	9.339×10^1
200. MeV	2.868×10^2	1.124				1.124	1.463×10^2
226. MeV	3.145×10^2	1.122	0.000			1.123	*Minimum ionization*
300. MeV	3.917×10^2	1.130	0.000		0.000	1.131	2.352×10^2
400. MeV	4.945×10^2	1.151	0.000		0.000	1.152	3.228×10^2
800. MeV	8.995×10^2	1.237	0.001		0.000	1.238	6.572×10^2
1.00 GeV	1.101×10^3	1.270	0.001		0.000	1.272	8.165×10^2
1.40 GeV	1.502×10^3	1.322	0.002		0.001	1.325	1.124×10^3
2.00 GeV	2.103×10^3	1.379	0.004	0.001	0.001	1.385	1.567×10^3
3.00 GeV	3.104×10^3	1.442	0.007	0.003	0.001	1.454	2.270×10^3
4.00 GeV	4.104×10^3	1.486	0.010	0.006	0.002	1.504	2.946×10^3
8.00 GeV	8.105×10^3	1.585	0.025	0.022	0.003	1.636	5.486×10^3
10.0 GeV	1.011×10^4	1.615	0.033	0.031	0.004	1.683	6.691×10^3
14.0 GeV	1.411×10^4	1.657	0.051	0.051	0.005	1.765	9.009×10^3
20.0 GeV	2.011×10^4	1.700	0.079	0.084	0.007	1.871	1.231×10^4
30.0 GeV	3.011×10^4	1.744	0.129	0.148	0.011	2.033	1.743×10^4
40.0 GeV	4.011×10^4	1.774	0.183	0.218	0.014	2.190	2.217×10^4
80.0 GeV	8.011×10^4	1.840	0.414	0.527	0.028	2.810	3.825×10^4
100. GeV	1.001×10^5	1.860	0.536	0.694	0.034	3.126	4.500×10^4
140. GeV	1.401×10^5	1.889	0.787	1.038	0.048	3.763	5.665×10^4
141. GeV	1.412×10^5	1.890	0.794	1.048	0.048	3.782	*Muon critical energy*
200. GeV	2.001×10^5	1.919	1.179	1.583	0.068	4.750	7.082×10^4
300. GeV	3.001×10^5	1.953	1.848	2.492	0.102	6.396	8.891×10^4
400. GeV	4.001×10^5	1.976	2.539	3.434	0.136	8.088	1.028×10^5
800. GeV	8.001×10^5	2.033	5.391	7.297	0.276	14.998	1.386×10^5
1.00 TeV	1.000×10^6	2.051	6.854	9.273	0.346	18.526	1.505×10^5
1.40 TeV	1.400×10^6	2.079	9.787	13.212	0.491	25.570	1.688×10^5
2.00 TeV	2.000×10^6	2.109	14.269	19.223	0.709	36.313	1.884×10^5
3.00 TeV	3.000×10^6	2.144	21.749	29.210	1.084	54.189	2.109×10^5
4.00 TeV	4.000×10^6	2.169	29.324	39.302	1.465	72.262	2.268×10^5
8.00 TeV	8.000×10^6	2.230	59.850	79.864	3.041	144.988	2.651×10^5
10.0 TeV	1.000×10^7	2.251	75.226	100.251	3.850	181.580	2.774×10^5
14.0 TeV	1.400×10^7	2.281	105.893	140.930	5.510	254.615	2.959×10^5
20.0 TeV	2.000×10^7	2.315	152.148	202.204	8.052	364.721	3.155×10^5
30.0 TeV	3.000×10^7	2.353	229.154	304.148	12.440	548.097	3.377×10^5
40.0 TeV	4.000×10^7	2.381	306.420	406.326	16.930	732.059	3.534×10^5
80.0 TeV	8.000×10^7	2.449	615.890	815.326	35.667	1469.333	3.912×10^5
100. TeV	1.000×10^8	2.471	770.860	1020.010	45.340	1838.683	4.034×10^5