Muons in aluminum (Al)

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
13 (Al)	26.9815385 (7)	2.699	166.0	0.08024	3.6345	0.1708	3.0127	4.2395	0.12

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	6.188				6.188	9.023×10^{-1}
14.0 MeV	5.616×10^1	4.849				4.849	1.640×10^0
20.0 MeV	6.802×10^1	3.802				3.802	3.053×10^0
30.0 MeV	8.509×10^1	2.960				2.961	6.075×10^0
40.0 MeV	1.003×10^2	2.533				2.533	9.750×10^0
80.0 MeV	1.527×10^2	1.908				1.908	2.851×10^1
100. MeV	1.764×10^2	1.797				1.798	3.934×10^1
140. MeV	2.218×10^2	1.688				1.688	6.241×10^1
200. MeV	2.868×10^2	1.629				1.630	9.871×10^1
277. MeV	3.683×10^2	1.615			0.000	1.615	*Minimum ionization*
300. MeV	3.917×10^2	1.616			0.000	1.616	1.605×10^2
400. MeV	4.945×10^2	1.630			0.000	1.630	2.222×10^2
800. MeV	8.995×10^2	1.710	0.000		0.000	1.711	4.616×10^2
1.00 GeV	1.101×10^3	1.744	0.000		0.000	1.745	5.773×10^2
1.40 GeV	1.502×10^3	1.797	0.001	0.000	0.001	1.799	8.029×10^2
2.00 GeV	2.103×10^3	1.855	0.001	0.000	0.001	1.858	1.131×10^3
3.00 GeV	3.104×10^3	1.920	0.002	0.001	0.001	1.925	1.659×10^3
4.00 GeV	4.104×10^3	1.965	0.002	0.002	0.002	1.971	2.172×10^3
8.00 GeV	8.105×10^3	2.067	0.006	0.006	0.004	2.082	4.140×10^3
10.0 GeV	1.011×10^4	2.097	0.008	0.008	0.005	2.117	5.092×10^3
14.0 GeV	1.411×10^4	2.141	0.012	0.013	0.006	2.172	6.956×10^3
20.0 GeV	2.011×10^4	2.185	0.018	0.021	0.009	2.233	9.678×10^3
30.0 GeV	3.011×10^4	2.233	0.030	0.036	0.013	2.312	1.408×10^4
40.0 GeV	4.011×10^4	2.265	0.042	0.053	0.017	2.377	1.834×10^4
80.0 GeV	8.011×10^4	2.338	0.095	0.129	0.033	2.594	3.442×10^4
100. GeV	1.001×10^5	2.360	0.123	0.169	0.040	2.693	4.199×10^4
140. GeV	1.401×10^5	2.394	0.181	0.253	0.056	2.884	5.634×10^4
200. GeV	2.001×10^5	2.429	0.272	0.385	0.080	3.166	7.618×10^4
300. GeV	3.001×10^5	2.469	0.427	0.610	0.120	3.627	1.057×10^5
400. GeV	4.001×10^5	2.498	0.588	0.845	0.160	4.091	1.316×10^5
612. GeV	6.124×10^5	2.540	0.940	1.355	0.245	5.080	*Muon critical energy*
800. GeV	8.001×10^5	2.567	1.257	1.813	0.323	5.960	2.122×10^5
1.00 TeV	1.000×10^6	2.589	1.602	2.312	0.405	6.909	2.433×10^5
1.40 TeV	1.400×10^6	2.623	2.295	3.304	0.575	8.797	2.945×10^5
2.00 TeV	2.000×10^6	2.660	3.357	4.823	0.832	11.672	3.535×10^5
3.00 TeV	3.000×10^6	2.702	5.135	7.347	1.274	16.458	4.254×10^5
4.00 TeV	4.000×10^6	2.732	6.941	9.902	1.723	21.299	4.786×10^5
8.00 TeV	8.000×10^6	2.807	14.238	20.187	3.590	40.823	6.120×10^5
10.0 TeV	1.000×10^7	2.832	17.923	25.362	4.551	50.668	6.559×10^5
14.0 TeV	1.400×10^7	2.869	25.280	35.679	6.528	70.356	7.226×10^5
20.0 TeV	2.000×10^7	2.910	36.398	51.230	9.562	100.100	7.937×10^5
30.0 TeV	3.000×10^7	2.956	54.885	77.116	14.821	149.779	8.749×10^5
40.0 TeV	4.000×10^7	2.990	73.453	103.077	20.213	199.734	9.325×10^5
80.0 TeV	8.000×10^7	3.073	147.903	207.008	42.793	400.778	1.071×10^6
100. TeV	1.000×10^8	3.100	185.220	259.030	54.480	501.831	1.116×10^6