Muons in ytterbium (Yb)

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
70 (Yb)	173.054(5)	6.903	684.0	0.25295	2.5141	0.1144	3.6191	6.3071	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	4.071				4.071	1.417×10^0
14.0 MeV	5.616×10^1	3.238				3.238	2.529×10^0
20.0 MeV	6.802×10^1	2.572				2.572	4.630×10^0
30.0 MeV	8.509×10^1	2.027				2.027	9.066×10^0
40.0 MeV	1.003×10^2	1.747				1.747	1.441×10^1
80.0 MeV	1.527×10^2	1.336				1.336	4.138×10^1
100. MeV	1.764×10^2	1.264				1.264	5.681×10^1
140. MeV	2.218×10^2	1.194				1.195	8.950×10^1
200. MeV	2.868×10^2	1.162				1.163	1.406×10^2
237. MeV	3.260×10^2	1.159	0.000			1.159	*Minimum ionization*
300. MeV	3.917×10^2	1.165	0.000		0.000	1.165	2.267×10^2
400. MeV	4.945×10^2	1.184	0.000		0.000	1.185	3.119×10^2
800. MeV	8.995×10^2	1.269	0.001		0.000	1.270	6.375×10^2
1.00 GeV	1.101×10^3	1.303	0.001		0.000	1.304	7.928×10^2
1.40 GeV	1.502×10^3	1.356	0.002	0.000	0.001	1.359	1.093×10^3
2.00 GeV	2.103×10^3	1.415	0.004	0.001	0.001	1.420	1.524×10^3
3.00 GeV	3.104×10^3	1.481	0.006	0.003	0.001	1.492	2.210×10^3
4.00 GeV	4.104×10^3	1.527	0.009	0.006	0.002	1.544	2.868×10^3
8.00 GeV	8.105×10^3	1.633	0.022	0.020	0.003	1.679	5.342×10^3
10.0 GeV	1.011×10^4	1.664	0.029	0.029	0.004	1.727	6.516×10^3
14.0 GeV	1.411×10^4	1.710	0.045	0.047	0.005	1.808	8.778×10^3
20.0 GeV	2.011×10^4	1.756	0.070	0.077	0.007	1.911	1.200×10^4
30.0 GeV	3.011×10^4	1.804	0.115	0.135	0.011	2.066	1.703×10^4
40.0 GeV	4.011×10^4	1.837	0.162	0.198	0.014	2.212	2.171×10^4
80.0 GeV	8.011×10^4	1.908	0.366	0.477	0.028	2.780	3.780×10^4
100. GeV	1.001×10^5	1.929	0.474	0.628	0.035	3.067	4.465×10^4
140. GeV	1.401×10^5	1.960	0.696	0.938	0.049	3.643	5.660×10^4
161. GeV	1.607×10^5	1.972	0.813	1.103	0.056	3.945	*Muon critical energy*
200. GeV	2.001×10^5	1.991	1.043	1.429	0.069	4.533	7.135×10^4
300. GeV	3.001×10^5	2.025	1.635	2.249	0.104	6.014	9.045×10^4
400. GeV	4.001×10^5	2.049	2.246	3.099	0.139	7.534	1.053×10^5
800. GeV	8.001×10^5	2.107	4.771	6.581	0.280	13.741	1.440×10^5
1.00 TeV	1.000×10^6	2.126	6.067	8.362	0.352	16.909	1.571×10^5
1.40 TeV	1.400×10^6	2.155	8.665	11.915	0.499	23.235	1.772×10^5
2.00 TeV	2.000×10^6	2.186	12.637	17.335	0.721	32.880	1.988×10^5
3.00 TeV	3.000×10^6	2.221	19.265	26.342	1.102	48.931	2.236×10^5
4.00 TeV	4.000×10^6	2.247	25.979	35.443	1.489	65.160	2.413×10^5
8.00 TeV	8.000×10^6	2.309	53.042	72.024	3.093	130.469	2.838×10^5
10.0 TeV	1.000×10^7	2.330	66.675	90.410	3.916	163.333	2.975×10^5
14.0 TeV	1.400×10^7	2.361	93.868	127.097	5.605	228.933	3.181×10^5
20.0 TeV	2.000×10^7	2.395	134.888	182.360	8.192	327.837	3.399×10^5
30.0 TeV	3.000×10^7	2.435	203.176	274.303	12.660	492.576	3.646×10^5
40.0 TeV	4.000×10^7	2.463	271.700	366.460	17.231	657.856	3.821×10^5
80.0 TeV	8.000×10^7	2.533	546.175	735.347	36.310	1320.367	4.242×10^5
100. TeV	1.000×10^8	2.555	683.630	919.960	46.160	1652.307	4.377×10^5