Table 066: Muons in Dysprosium

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
66 (Dy)	162.500 (1)	8.550	628.0	0.24665	2.5849	0.0822	3.4474	5.9183	0.14

T	p [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm^2]
		[MeV cm^2/g]					
10.0 MeV	4.704×10^1	4.162				4.162	1.381×10^0
14.0 MeV	5.616×10^1	3.304				3.304	2.469×10^0
20.0 MeV	6.802×10^1	2.621				2.621	4.530×10^0
30.0 MeV	8.509×10^1	2.063				2.063	8.887×10^0
40.0 MeV	1.003×10^2	1.776				1.776	1.414×10^1
80.0 MeV	1.527×10^2	1.357				1.357	4.069×10^1
100. MeV	1.764×10^2	1.283				1.283	5.589×10^1
140. MeV	2.218×10^2	1.212				1.212	8.810×10^1
200. MeV	2.868×10^2	1.179				1.179	1.384×10^2
239. MeV	3.285×10^2	1.175	0.000			1.176	*Minimum ionization*
300. MeV	3.917×10^2	1.180	0.000		0.000	1.181	2.234×10^2
400. MeV	4.945×10^2	1.199	0.000		0.000	1.200	3.074×10^2
800. MeV	8.995×10^2	1.283	0.001		0.000	1.284	6.292×10^2
1.00 GeV	1.101×10^3	1.316	0.001		0.000	1.318	7.829×10^2
1.40 GeV	1.502×10^3	1.369	0.002	0.000	0.001	1.372	1.080×10^3
2.00 GeV	2.103×10^3	1.427	0.003	0.001	0.001	1.432	1.508×10^3
3.00 GeV	3.104×10^3	1.492	0.006	0.003	0.001	1.503	2.188×10^3
4.00 GeV	4.104×10^3	1.537	0.009	0.006	0.002	1.554	2.842×10^3
8.00 GeV	8.105×10^3	1.640	0.021	0.020	0.003	1.684	5.305×10^3
10.0 GeV	1.011×10^4	1.671	0.028	0.028	0.004	1.731	6.475×10^3
14.0 GeV	1.411×10^4	1.715	0.043	0.045	0.005	1.809	8.734×10^3
20.0 GeV	2.011×10^4	1.760	0.067	0.074	0.007	1.908	1.196×10^4
30.0 GeV	3.011×10^4	1.806	0.109	0.129	0.011	2.056	1.701×10^4
40.0 GeV	4.011×10^4	1.837	0.154	0.190	0.014	2.197	2.171×10^4
80.0 GeV	8.011×10^4	1.906	0.348	0.457	0.028	2.740	3.797×10^4
100. GeV	1.001×10^5	1.926	0.451	0.602	0.035	3.015	4.493×10^4
140. GeV	1.401×10^5	1.956	0.662	0.898	0.049	3.566	5.712×10^4
167. GeV	1.669×10^5	1.971	0.808	1.105	0.058	3.943	*Muon critical energy*
200. GeV	2.001×10^5	1.986	0.992	1.368	0.070	4.417	7.222×10^4
300. GeV	3.001×10^5	2.020	1.555	2.153	0.105	5.834	9.186×10^4
400. GeV	4.001×10^5	2.044	2.137	2.966	0.139	7.288	1.072×10^5
800. GeV	8.001×10^5	2.102	4.540	6.300	0.282	13.225	1.474×10^5
1.00 TeV	1.000×10^6	2.121	5.774	8.005	0.354	16.255	1.610×10^5
1.40 TeV	1.400×10^6	2.150	8.246	11.406	0.501	22.305	1.819×10^5
2.00 TeV	2.000×10^6	2.181	12.027	16.594	0.725	31.529	2.044×10^5
3.00 TeV	3.000×10^6	2.216	18.337	25.217	1.109	46.880	2.303×10^5
4.00 TeV	4.000×10^6	2.242	24.730	33.930	1.498	62.401	2.487×10^5
8.00 TeV	8.000×10^6	2.305	50.497	68.951	3.111	124.866	2.931×10^5
10.0 TeV	1.000×10^7	2.326	63.479	86.553	3.939	156.298	3.074×10^5
14.0 TeV	1.400×10^7	2.357	89.372	121.677	5.638	219.046	3.289×10^5
20.0 TeV	2.000×10^7	2.391	128.434	174.586	8.240	313.653	3.517×10^5
30.0 TeV	3.000×10^7	2.431	193.462	262.612	12.736	471.242	3.775×10^5
40.0 TeV	4.000×10^7	2.459	258.717	350.842	17.336	629.356	3.958×10^5
80.0 TeV	8.000×10^7	2.529	520.105	704.008	36.531	1263.175	4.398×10^5
100. TeV	1.000×10^8	2.552	651.010	880.750	46.440	1580.754	4.539×10^5