Muons in liquid deuterium (D_2)

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
1 (D)	2.014101764(13)	0.164	21.8	0.13483	5.6249	0.4467	1.8923	3.1288	0.00

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	8.261				8.261	6.627×10^{-1}
14.0 MeV	5.616×10^1	6.412				6.412	1.218×10^0
20.0 MeV	6.802×10^1	4.983				4.983	2.292×10^0
30.0 MeV	8.509×10^1	3.846				3.846	4.610×10^0
40.0 MeV	1.003×10^2	3.272				3.273	7.447×10^0
80.0 MeV	1.527×10^2	2.437				2.437	2.207×10^1
100. MeV	1.764×10^2	2.286				2.286	3.057×10^1
140. MeV	2.218×10^2	2.135				2.135	4.876×10^1
200. MeV	2.868×10^2	2.054			0.000	2.054	7.752×10^1
300. MeV	3.917×10^2	2.022			0.000	2.022	1.267×10^2
339. MeV	4.317×10^2	2.020			0.000	2.020	*Minimum ionization*
400. MeV	4.945×10^2	2.022			0.000	2.023	1.762×10^2
800. MeV	8.995×10^2	2.071			0.000	2.072	3.717×10^2
1.00 GeV	1.101×10^3	2.095			0.001	2.096	4.677×10^2
1.40 GeV	1.502×10^3	2.135	0.000		0.001	2.136	6.567×10^2
2.00 GeV	2.103×10^3	2.180	0.000		0.001	2.182	9.345×10^2
3.00 GeV	3.104×10^3	2.234	0.000	0.000	0.002	2.236	1.387×10^3
4.00 GeV	4.104×10^3	2.272	0.001	0.000	0.002	2.275	1.830×10^3
8.00 GeV	8.105×10^3	2.364	0.001	0.001	0.005	2.371	3.548×10^3
10.0 GeV	1.011×10^4	2.393	0.002	0.002	0.006	2.402	4.386×10^3
14.0 GeV	1.411×10^4	2.435	0.003	0.003	0.008	2.449	6.034×10^3
20.0 GeV	2.011×10^4	2.479	0.005	0.006	0.011	2.500	8.457×10^3
30.0 GeV	3.011×10^4	2.526	0.008	0.010	0.015	2.560	1.241×10^4
40.0 GeV	4.011×10^4	2.559	0.012	0.015	0.020	2.606	1.628×10^4
80.0 GeV	8.011×10^4	2.634	0.028	0.038	0.038	2.738	3.123×10^4
100. GeV	1.001×10^5	2.657	0.037	0.050	0.047	2.792	3.846×10^4
140. GeV	1.401×10^5	2.692	0.055	0.076	0.066	2.889	5.254×10^4
200. GeV	2.001×10^5	2.728	0.085	0.118	0.093	3.024	7.283×10^4
300. GeV	3.001×10^5	2.769	0.137	0.191	0.139	3.236	1.048×10^5
400. GeV	4.001×10^5	2.799	0.191	0.268	0.185	3.443	1.347×10^5
800. GeV	8.001×10^5	2.870	0.423	0.592	0.373	4.257	2.390×10^5
1.00 TeV	1.000×10^6	2.893	0.544	0.761	0.468	4.666	2.839×10^5
1.40 TeV	1.400×10^6	2.928	0.791	1.101	0.663	5.484	3.629×10^5
1.59 TeV	1.594×10^6	2.942	0.914	1.269	0.759	5.883	*Muon critical energy*
2.00 TeV	2.000×10^6	2.966	1.175	1.627	0.961	6.729	4.615×10^5
3.00 TeV	3.000×10^6	3.009	1.827	2.504	1.474	8.814	5.910×10^5
4.00 TeV	4.000×10^6	3.041	2.496	3.399	1.996	10.932	6.927×10^5
8.00 TeV	8.000×10^6	3.118	5.240	7.012	4.180	19.550	9.628×10^5
10.0 TeV	1.000×10^7	3.143	6.642	8.837	5.308	23.930	1.055×10^6
14.0 TeV	1.400×10^7	3.182	9.452	12.466	7.642	32.742	1.197×10^6
20.0 TeV	2.000×10^7	3.223	13.734	17.952	11.236	46.145	1.351×10^6
30.0 TeV	3.000×10^7	3.271	20.884	27.062	17.498	68.715	1.528×10^6
40.0 TeV	4.000×10^7	3.306	28.113	36.210	23.940	91.568	1.653×10^6
80.0 TeV	8.000×10^7	3.392	57.248	72.833	51.135	184.607	1.955×10^6
100. TeV	1.000×10^8	3.420	71.920	91.170	65.290	231.800	2.052×10^6