Table 005: Muons in Boron

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
5 (B)	10.811 (7)	2.370	76.0	0.56224	2.4512	0.0305	1.9688	2.8477	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	6.610				6.610	8.365×10^{-1}
14.0 MeV	5.616×10^1	5.155				5.155	1.529×10^0
20.0 MeV	6.802×10^1	4.023				4.023	2.862×10^0
30.0 MeV	8.509×10^1	3.117				3.117	5.725×10^0
40.0 MeV	1.003×10^2	2.657				2.657	9.223×10^0
80.0 MeV	1.527×10^2	1.977				1.977	2.723×10^1
100. MeV	1.764×10^2	1.852				1.852	3.771×10^1
140. MeV	2.218×10^2	1.724				1.724	6.021×10^1
200. MeV	2.868×10^2	1.651				1.651	9.591×10^1
300. MeV	3.917×10^2	1.623			0.000	1.624	1.572×10^2
315. MeV	4.071×10^2	1.623			0.000	1.623	*Minimum ionization*
400. MeV	4.945×10^2	1.629			0.000	1.629	2.187×10^2
800. MeV	8.995×10^2	1.693	0.000		0.000	1.693	4.596×10^2
1.00 GeV	1.101×10^3	1.721	0.000		0.000	1.722	5.767×10^2
1.40 GeV	1.502×10^3	1.768	0.000		0.001	1.769	8.058×10^2
2.00 GeV	2.103×10^3	1.818	0.000	0.000	0.001	1.820	1.140×10^3
3.00 GeV	3.104×10^3	1.876	0.001	0.000	0.001	1.879	1.680×10^3
4.00 GeV	4.104×10^3	1.915	0.001	0.001	0.002	1.919	2.206×10^3
8.00 GeV	8.105×10^3	2.005	0.002	0.002	0.004	2.013	4.235×10^3
10.0 GeV	1.011×10^4	2.032	0.003	0.003	0.005	2.043	5.221×10^3
14.0 GeV	1.411×10^4	2.071	0.005	0.005	0.007	2.088	7.157×10^3
20.0 GeV	2.011×10^4	2.112	0.007	0.009	0.009	2.137	9.996×10^3
30.0 GeV	3.011×10^4	2.156	0.012	0.015	0.014	2.197	1.461×10^4
40.0 GeV	4.011×10^4	2.186	0.017	0.022	0.018	2.244	1.911×10^4
80.0 GeV	8.011×10^4	2.256	0.040	0.054	0.034	2.384	3.637×10^4
100. GeV	1.001×10^5	2.278	0.052	0.071	0.043	2.444	4.466×10^4
140. GeV	1.401×10^5	2.310	0.077	0.107	0.059	2.553	6.066×10^4
200. GeV	2.001×10^5	2.344	0.116	0.164	0.084	2.708	8.347×10^4
300. GeV	3.001×10^5	2.382	0.183	0.261	0.126	2.952	1.188×10^5
400. GeV	4.001×10^5	2.410	0.253	0.362	0.168	3.193	1.514×10^5
800. GeV	8.001×10^5	2.476	0.544	0.786	0.339	4.145	2.610×10^5
1.00 TeV	1.000×10^6	2.497	0.695	1.005	0.426	4.623	3.067×10^5
1.17 TeV	1.170×10^6	2.513	0.822	1.189	0.502	5.025	*Muon critical energy*
1.40 TeV	1.400×10^6	2.530	0.998	1.441	0.605	5.575	3.854×10^5
2.00 TeV	2.000×10^6	2.565	1.465	2.111	0.876	7.018	4.811×10^5
3.00 TeV	3.000×10^6	2.606	2.249	3.227	1.342	9.425	6.037×10^5
4.00 TeV	4.000×10^6	2.635	3.046	4.360	1.817	11.859	6.981×10^5
8.00 TeV	8.000×10^6	2.707	6.278	8.925	3.794	21.704	9.438×10^5
10.0 TeV	1.000×10^7	2.730	7.913	11.225	4.813	26.682	1.027×10^6
14.0 TeV	1.400×10^7	2.766	11.175	15.807	6.912	36.661	1.154×10^6
20.0 TeV	2.000×10^7	2.805	16.112	22.722	10.136	51.775	1.291×10^6
30.0 TeV	3.000×10^7	2.850	24.333	34.222	15.736	77.142	1.448×10^6
40.0 TeV	4.000×10^7	2.882	32.599	45.762	21.485	102.729	1.560×10^6
80.0 TeV	8.000×10^7	2.962	65.728	91.967	45.618	206.275	1.830×10^6
100. TeV	1.000×10^8	2.988	82.330	115.100	58.130	258.549	1.916×10^6