

Table 195: Muons in Magnesium tetraborate MgB₄O₇

$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
0.49014	2.530	108.3	0.09703	3.4893	0.1147	2.7635	3.4328	0.00
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	6.699				6.699	8.280×10^{-1}	
14.0 MeV	5.616×10^1	5.235				5.235	1.511×10^0	
20.0 MeV	6.802×10^1	4.096				4.096	2.821×10^0	
30.0 MeV	8.509×10^1	3.183				3.183	5.629×10^0	
40.0 MeV	1.003×10^2	2.721				2.722	9.049×10^0	
80.0 MeV	1.527×10^2	2.045				2.045	2.653×10^1	
100. MeV	1.764×10^2	1.918				1.918	3.665×10^1	
140. MeV	2.218×10^2	1.790				1.790	5.834×10^1	
200. MeV	2.868×10^2	1.718				1.718	9.268×10^1	
300. MeV	3.917×10^2	1.692			0.000	1.693	1.515×10^2	
307. MeV	3.990×10^2	1.692			0.000	1.693	<i>Minimum ionization</i>	
400. MeV	4.945×10^2	1.700			0.000	1.701	2.105×10^2	
800. MeV	8.995×10^2	1.770	0.000		0.000	1.771	4.410×10^2	
1.00 GeV	1.101×10^3	1.801	0.000		0.000	1.802	5.530×10^2	
1.40 GeV	1.502×10^3	1.851	0.000	0.000	0.001	1.852	7.718×10^2	
2.00 GeV	2.103×10^3	1.906	0.001	0.000	0.001	1.908	1.091×10^3	
3.00 GeV	3.104×10^3	1.968	0.001	0.001	0.001	1.972	1.606×10^3	
4.00 GeV	4.104×10^3	2.012	0.002	0.001	0.002	2.016	2.107×10^3	
8.00 GeV	8.105×10^3	2.111	0.004	0.004	0.004	2.122	4.035×10^3	
10.0 GeV	1.011×10^4	2.141	0.005	0.005	0.005	2.155	4.969×10^3	
14.0 GeV	1.411×10^4	2.184	0.008	0.008	0.006	2.207	6.802×10^3	
20.0 GeV	2.011×10^4	2.228	0.012	0.013	0.009	2.263	9.486×10^3	
30.0 GeV	3.011×10^4	2.275	0.019	0.024	0.013	2.332	1.384×10^4	
40.0 GeV	4.011×10^4	2.308	0.027	0.035	0.017	2.387	1.807×10^4	
80.0 GeV	8.011×10^4	2.382	0.062	0.084	0.034	2.561	3.422×10^4	
100. GeV	1.001×10^5	2.405	0.081	0.110	0.042	2.638	4.192×10^4	
140. GeV	1.401×10^5	2.439	0.119	0.165	0.058	2.782	5.668×10^4	
200. GeV	2.001×10^5	2.475	0.179	0.253	0.083	2.989	7.748×10^4	
300. GeV	3.001×10^5	2.516	0.282	0.402	0.124	3.323	1.092×10^5	
400. GeV	4.001×10^5	2.544	0.388	0.556	0.165	3.654	1.379×10^5	
800. GeV	8.001×10^5	2.615	0.832	1.200	0.333	4.980	2.313×10^5	
881. GeV	8.807×10^5	2.624	0.924	1.333	0.367	5.249	<i>Muon critical energy</i>	
1.00 TeV	1.000×10^6	2.637	1.061	1.532	0.419	5.650	2.690×10^5	
1.40 TeV	1.400×10^6	2.672	1.523	2.193	0.594	6.981	3.326×10^5	
2.00 TeV	2.000×10^6	2.709	2.231	3.205	0.859	9.005	4.080×10^5	
3.00 TeV	3.000×10^6	2.752	3.418	4.890	1.317	12.377	5.024×10^5	
4.00 TeV	4.000×10^6	2.783	4.624	6.597	1.782	15.787	5.738×10^5	
8.00 TeV	8.000×10^6	2.859	9.505	13.474	3.718	29.557	7.560×10^5	
10.0 TeV	1.000×10^7	2.884	11.972	16.937	4.715	36.508	8.168×10^5	
14.0 TeV	1.400×10^7	2.922	16.895	23.837	6.768	50.423	9.097×10^5	
20.0 TeV	2.000×10^7	2.964	24.338	34.243	9.922	71.467	1.009×10^6	
30.0 TeV	3.000×10^7	3.011	36.728	51.560	15.393	106.693	1.123×10^6	
40.0 TeV	4.000×10^7	3.045	49.180	68.932	21.008	142.165	1.204×10^6	
80.0 TeV	8.000×10^7	3.130	99.107	138.475	44.554	285.266	1.399×10^6	
100. TeV	1.000×10^8	3.158	124.135	173.288	56.754	357.334	1.461×10^6	