

Table 193: Muons in Magnesium fluoride MgF₂

$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
0.48153	3.000	134.3	0.07934	3.6485	0.1369	2.8630	3.7105	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	6.389				6.389	8.702×10^{-1}	
14.0 MeV	5.616×10^1	4.999				4.999	1.585×10^0	
20.0 MeV	6.802×10^1	3.915				3.915	2.957×10^0	
30.0 MeV	8.509×10^1	3.046				3.046	5.893×10^0	
40.0 MeV	1.003×10^2	2.606				2.607	9.464×10^0	
80.0 MeV	1.527×10^2	1.965				1.965	2.769×10^1	
100. MeV	1.764×10^2	1.846				1.846	3.822×10^1	
140. MeV	2.218×10^2	1.727				1.727	6.072×10^1	
200. MeV	2.868×10^2	1.661				1.661	9.628×10^1	
297. MeV	3.884×10^2	1.640			0.000	1.640	<i>Minimum ionization</i>	
300. MeV	3.917×10^2	1.640			0.000	1.640	1.570×10^2	
400. MeV	4.945×10^2	1.650			0.000	1.650	2.179×10^2	
800. MeV	8.995×10^2	1.722	0.000		0.000	1.723	4.551×10^2	
1.00 GeV	1.101×10^3	1.753	0.000		0.000	1.754	5.701×10^2	
1.40 GeV	1.502×10^3	1.803	0.000	0.000	0.001	1.805	7.948×10^2	
2.00 GeV	2.103×10^3	1.858	0.001	0.000	0.001	1.861	1.122×10^3	
3.00 GeV	3.104×10^3	1.921	0.001	0.001	0.001	1.924	1.650×10^3	
4.00 GeV	4.104×10^3	1.964	0.002	0.001	0.002	1.969	2.163×10^3	
8.00 GeV	8.105×10^3	2.061	0.005	0.004	0.004	2.074	4.136×10^3	
10.0 GeV	1.011×10^4	2.091	0.006	0.006	0.005	2.108	5.092×10^3	
14.0 GeV	1.411×10^4	2.134	0.009	0.010	0.006	2.160	6.965×10^3	
20.0 GeV	2.011×10^4	2.177	0.015	0.017	0.009	2.218	9.705×10^3	
30.0 GeV	3.011×10^4	2.224	0.024	0.029	0.013	2.290	1.414×10^4	
40.0 GeV	4.011×10^4	2.256	0.034	0.043	0.017	2.350	1.845×10^4	
80.0 GeV	8.011×10^4	2.328	0.076	0.103	0.033	2.542	3.479×10^4	
100. GeV	1.001×10^5	2.351	0.099	0.136	0.041	2.628	4.253×10^4	
140. GeV	1.401×10^5	2.385	0.146	0.204	0.057	2.792	5.729×10^4	
200. GeV	2.001×10^5	2.420	0.219	0.312	0.081	3.033	7.790×10^4	
300. GeV	3.001×10^5	2.460	0.346	0.494	0.122	3.421	1.089×10^5	
400. GeV	4.001×10^5	2.488	0.476	0.683	0.162	3.810	1.366×10^5	
730. GeV	7.296×10^5	2.548	0.921	1.329	0.298	5.097	<i>Muon critical energy</i>	
800. GeV	8.001×10^5	2.557	1.019	1.470	0.327	5.374	2.246×10^5	
1.00 TeV	1.000×10^6	2.580	1.299	1.876	0.412	6.166	2.593×10^5	
1.40 TeV	1.400×10^6	2.614	1.861	2.682	0.583	7.741	3.171×10^5	
2.00 TeV	2.000×10^6	2.650	2.725	3.916	0.845	10.136	3.846×10^5	
3.00 TeV	3.000×10^6	2.693	4.171	5.969	1.294	14.127	4.679×10^5	
4.00 TeV	4.000×10^6	2.723	5.641	8.049	1.750	18.163	5.301×10^5	
8.00 TeV	8.000×10^6	2.798	11.582	16.422	3.650	34.452	6.874×10^5	
10.0 TeV	1.000×10^7	2.822	14.583	20.636	4.628	42.670	7.395×10^5	
14.0 TeV	1.400×10^7	2.860	20.573	29.037	6.640	59.109	8.188×10^5	
20.0 TeV	2.000×10^7	2.900	29.626	41.702	9.730	83.958	9.035×10^5	
30.0 TeV	3.000×10^7	2.947	44.691	62.781	15.087	125.507	1.000×10^6	
40.0 TeV	4.000×10^7	2.981	59.827	83.924	20.583	167.314	1.069×10^6	
80.0 TeV	8.000×10^7	3.064	120.517	168.563	43.614	335.759	1.235×10^6	
100. TeV	1.000×10^8	3.091	150.940	210.930	55.542	420.504	1.288×10^6	