Table 009: Muons in Fluorine gas ($\mathbf{F_2}$)

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
9 (F)	18.9984032 (5)	1.580×10^{-3}	115.0	0.11083	3.2962	1.8433	4.4096	10.9653	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	6.415				6.415	8.663×10^{-1}
14.0 MeV	5.616×10^1	5.017				5.017	1.579×10^0
20.0 MeV	6.802×10^1	3.927				3.927	2.946×10^0
30.0 MeV	8.509×10^1	3.054				3.054	5.874×10^0
40.0 MeV	1.003×10^2	2.611				2.611	9.438×10^0
80.0 MeV	1.527×10^2	1.967				1.967	2.764×10^1
100. MeV	1.764×10^2	1.852				1.853	3.815×10^1
140. MeV	2.218×10^2	1.740				1.741	6.052×10^1
200. MeV	2.868×10^2	1.685				1.685	9.569×10^1
252. MeV	3.421×10^2	1.676			0.000	1.676	*Minimum ionization*
300. MeV	3.917×10^2	1.680			0.000	1.681	1.553×10^2
400. MeV	4.945×10^2	1.705			0.000	1.705	2.144×10^2
800. MeV	8.995×10^2	1.824	0.000		0.000	1.825	4.409×10^2
1.00 GeV	1.101×10^3	1.874	0.000		0.000	1.874	5.490×10^2
1.40 GeV	1.502×10^3	1.955	0.000	0.000	0.001	1.956	7.577×10^2
2.00 GeV	2.103×10^3	2.046	0.001	0.000	0.001	2.048	1.057×10^3
3.00 GeV	3.104×10^3	2.154	0.001	0.001	0.001	2.157	1.532×10^3
4.00 GeV	4.104×10^3	2.231	0.002	0.001	0.002	2.236	1.987×10^3
8.00 GeV	8.105×10^3	2.413	0.004	0.004	0.004	2.425	3.695×10^3
10.0 GeV	1.011×10^4	2.461	0.005	0.005	0.005	2.477	4.511×10^3
14.0 GeV	1.411×10^4	2.529	0.008	0.009	0.006	2.553	6.100×10^3
20.0 GeV	2.011×10^4	2.596	0.013	0.015	0.009	2.632	8.413×10^3
30.0 GeV	3.011×10^4	2.665	0.021	0.026	0.013	2.725	1.214×10^4
40.0 GeV	4.011×10^4	2.710	0.030	0.038	0.017	2.795	1.576×10^4
80.0 GeV	8.011×10^4	2.808	0.067	0.091	0.033	3.000	2.955×10^4
100. GeV	1.001×10^5	2.837	0.087	0.120	0.041	3.086	3.612×10^4
140. GeV	1.401×10^5	2.878	0.129	0.180	0.057	3.244	4.875×10^4
200. GeV	2.001×10^5	2.919	0.194	0.275	0.082	3.470	6.663×10^4
300. GeV	3.001×10^5	2.963	0.305	0.436	0.122	3.828	9.406×10^4
400. GeV	4.001×10^5	2.994	0.421	0.604	0.163	4.182	1.190×10^5
800. GeV	8.001×10^5	3.065	0.901	1.301	0.329	5.597	2.014×10^5
960. GeV	9.600×10^5	3.084	1.099	1.588	0.397	6.167	*Muon critical energy*
1.00 TeV	1.000×10^6	3.088	1.149	1.661	0.414	6.311	2.351×10^5
1.40 TeV	1.400×10^6	3.122	1.648	2.375	0.587	7.732	2.922×10^5
2.00 TeV	2.000×10^6	3.158	2.413	3.470	0.850	9.891	3.607×10^5
3.00 TeV	3.000×10^6	3.199	3.695	5.292	1.301	13.488	4.470×10^5
4.00 TeV	4.000×10^6	3.229	4.998	7.138	1.761	17.126	5.126×10^5
8.00 TeV	8.000×10^6	3.303	10.269	14.569	3.672	31.813	6.813×10^5
10.0 TeV	1.000×10^7	3.327	12.932	18.311	4.656	39.226	7.379×10^5
14.0 TeV	1.400×10^7	3.364	18.245	25.768	6.682	54.058	8.244×10^5
20.0 TeV	2.000×10^7	3.403	26.276	37.012	9.792	76.484	9.172×10^5
30.0 TeV	3.000×10^7	3.449	39.648	55.724	15.187	114.008	1.024×10^6
40.0 TeV	4.000×10^7	3.482	53.085	74.493	20.722	151.782	1.099×10^6
80.0 TeV	8.000×10^7	3.564	106.962	149.635	43.923	304.085	1.282×10^6
100. TeV	1.000×10^8	3.591	133.970	187.250	55.940	380.751	1.341×10^6