Table 017: Muons in Chlorine gas (Cl_2)

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
17 (Cl)	35.453 (2)	2.980×10^{-3}	174.0	0.19849	2.9702	1.5566	4.3005	11.1470	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	6.123				6.123	9.124×10^{-1}
14.0 MeV	5.616×10^1	4.800				4.800	1.658×10^0
20.0 MeV	6.802×10^1	3.766				3.766	3.085×10^0
30.0 MeV	8.509×10^1	2.936				2.936	6.134×10^0
40.0 MeV	1.003×10^2	2.514				2.514	9.838×10^0
80.0 MeV	1.527×10^2	1.901				1.901	2.871×10^1
100. MeV	1.764×10^2	1.792				1.792	3.957×10^1
140. MeV	2.218×10^2	1.687				1.687	6.268×10^1
200. MeV	2.868×10^2	1.636				1.636	9.892×10^1
246. MeV	3.356×10^2	1.630			0.000	1.630	*Minimum ionization*
300. MeV	3.917×10^2	1.636			0.000	1.636	1.602×10^2
400. MeV	4.945×10^2	1.662	0.000		0.000	1.662	2.209×10^2
800. MeV	8.995×10^2	1.784	0.000		0.000	1.785	4.528×10^2
1.00 GeV	1.101×10^3	1.835	0.000		0.000	1.836	5.632×10^2
1.40 GeV	1.502×10^3	1.917	0.001	0.000	0.001	1.919	7.761×10^2
2.00 GeV	2.103×10^3	2.010	0.001	0.001	0.001	2.013	1.081×10^3
3.00 GeV	3.104×10^3	2.119	0.002	0.001	0.001	2.124	1.564×10^3
4.00 GeV	4.104×10^3	2.196	0.003	0.002	0.002	2.204	2.026×10^3
8.00 GeV	8.105×10^3	2.367	0.007	0.007	0.004	2.385	3.761×10^3
10.0 GeV	1.011×10^4	2.418	0.010	0.010	0.004	2.442	4.590×10^3
14.0 GeV	1.411×10^4	2.489	0.015	0.016	0.006	2.527	6.198×10^3
20.0 GeV	2.011×10^4	2.560	0.023	0.027	0.009	2.619	8.528×10^3
30.0 GeV	3.011×10^4	2.634	0.038	0.046	0.013	2.731	1.226×10^4
40.0 GeV	4.011×10^4	2.682	0.053	0.068	0.016	2.820	1.586×10^4
80.0 GeV	8.011×10^4	2.787	0.120	0.163	0.032	3.102	2.936×10^4
100. GeV	1.001×10^5	2.817	0.155	0.215	0.040	3.227	3.568×10^4
140. GeV	1.401×10^5	2.860	0.228	0.321	0.055	3.466	4.763×10^4
200. GeV	2.001×10^5	2.904	0.343	0.490	0.078	3.816	6.412×10^4
300. GeV	3.001×10^5	2.950	0.539	0.775	0.118	4.382	8.856×10^4
400. GeV	4.001×10^5	2.982	0.742	1.070	0.157	4.951	1.100×10^5
592. GeV	5.920×10^5	3.024	1.142	1.649	0.233	6.048	*Muon critical energy*
800. GeV	8.001×10^5	3.055	1.583	2.285	0.317	7.241	1.764×10^5
1.00 TeV	1.000×10^6	3.078	2.016	2.909	0.398	8.402	2.021×10^5
1.40 TeV	1.400×10^6	3.112	2.887	4.154	0.565	10.718	2.441×10^5
2.00 TeV	2.000×10^6	3.149	4.220	6.058	0.817	14.245	2.925×10^5
3.00 TeV	3.000×10^6	3.191	6.451	9.223	1.251	20.116	3.513×10^5
4.00 TeV	4.000×10^6	3.221	8.715	12.426	1.692	26.054	3.949×10^5
8.00 TeV	8.000×10^6	3.295	17.860	25.311	3.524	49.991	5.038×10^5
10.0 TeV	1.000×10^7	3.320	22.476	31.794	4.466	62.056	5.397×10^5
14.0 TeV	1.400×10^7	3.357	31.691	44.718	6.403	86.171	5.941×10^5
20.0 TeV	2.000×10^7	3.397	45.614	64.196	9.376	122.584	6.522×10^5
30.0 TeV	3.000×10^7	3.444	68.764	96.622	14.525	183.355	7.185×10^5
40.0 TeV	4.000×10^7	3.477	92.009	129.139	19.802	244.428	7.656×10^5
80.0 TeV	8.000×10^7	3.560	185.203	259.302	41.886	489.952	8.789×10^5
100. TeV	1.000×10^8	3.587	231.910	324.450	53.310	613.258	9.153×10^5