Table 288: Muons in Liquid chlorine (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)	1.574	174.0	0.18024	3.0000	0.2000	3.0000	4.8776	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	6.123				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	1.791				1.791	3.957×10^1
140. MeV	2.218×10^2	1.681				1.681	6.272×10^1
200. MeV	2.868×10^2	1.622				1.623	9.919×10^1
273. MeV	3.633×10^2	1.608			0.000	1.609	*Minimum ionization*
300. MeV	3.917×10^2	1.609			0.000	1.610	1.612×10^2
400. MeV	4.945×10^2	1.624	0.000		0.000	1.625	2.231×10^2
800. MeV	8.995×10^2	1.709	0.000		0.000	1.710	4.629×10^2
1.00 GeV	1.101×10^3	1.745	0.000		0.000	1.746	5.787×10^2
1.40 GeV	1.502×10^3	1.801	0.001	0.000	0.001	1.803	8.039×10^2
2.00 GeV	2.103×10^3	1.863	0.001	0.001	0.001	1.866	1.131×10^3
3.00 GeV	3.104×10^3	1.932	0.002	0.001	0.001	1.937	1.656×10^3
4.00 GeV	4.104×10^3	1.980	0.003	0.002	0.002	1.987	2.165×10^3
8.00 GeV	8.105×10^3	2.088	0.007	0.007	0.004	2.106	4.114×10^3
10.0 GeV	1.011×10^4	2.120	0.010	0.010	0.004	2.144	5.055×10^3
14.0 GeV	1.411×10^4	2.166	0.015	0.016	0.006	2.203	6.893×10^3
20.0 GeV	2.011×10^4	2.212	0.023	0.027	0.009	2.270	9.574×10^3
30.0 GeV	3.011×10^4	2.261	0.038	0.046	0.013	2.357	1.389×10^4
40.0 GeV	4.011×10^4	2.293	0.053	0.068	0.016	2.431	1.807×10^4
80.0 GeV	8.011×10^4	2.366	0.120	0.163	0.032	2.682	3.371×10^4
100. GeV	1.001×10^5	2.389	0.155	0.215	0.040	2.799	4.101×10^4
140. GeV	1.401×10^5	2.423	0.228	0.321	0.055	3.028	5.474×10^4
200. GeV	2.001×10^5	2.458	0.343	0.490	0.078	3.370	7.352×10^4
300. GeV	3.001×10^5	2.498	0.539	0.775	0.118	3.929	1.010×10^5
400. GeV	4.001×10^5	2.526	0.742	1.070	0.157	4.495	1.248×10^5
505. GeV	5.055×10^5	2.549	0.961	1.389	0.198	5.098	*Muon critical energy*
800. GeV	8.001×10^5	2.594	1.583	2.285	0.317	6.780	1.967×10^5
1.00 TeV	1.000×10^6	2.617	2.016	2.909	0.398	7.941	2.240×10^5
1.40 TeV	1.400×10^6	2.651	2.887	4.154	0.565	10.256	2.682×10^5
2.00 TeV	2.000×10^6	2.687	4.220	6.058	0.817	13.783	3.185×10^5
3.00 TeV	3.000×10^6	2.729	6.451	9.223	1.251	19.654	3.789×10^5
4.00 TeV	4.000×10^6	2.759	8.715	12.426	1.692	25.592	4.234×10^5
8.00 TeV	8.000×10^6	2.834	17.860	25.311	3.524	49.530	5.338×10^5
10.0 TeV	1.000×10^7	2.858	22.476	31.794	4.466	61.595	5.699×10^5
14.0 TeV	1.400×10^7	2.896	31.691	44.718	6.403	85.709	6.247×10^5
20.0 TeV	2.000×10^7	2.936	45.614	64.196	9.376	122.122	6.831×10^5
30.0 TeV	3.000×10^7	2.982	68.764	96.622	14.525	182.893	7.495×10^5
40.0 TeV	4.000×10^7	3.016	92.009	129.139	19.802	243.967	7.967×10^5
80.0 TeV	8.000×10^7	3.098	185.203	259.302	41.886	489.491	9.102×10^5
100. TeV	1.000×10^8	3.126	231.910	324.450	53.310	612.796	9.466×10^5