Table 163: Muons in Freon-13 (CF_3Cl)

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.47966	0.950	126.6	0.07238	3.5551	0.3659	3.2337	4.7483	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	6.416				6.416	8.659×10^{-1}
14.0 MeV	5.616×10^1	5.019				5.019	1.578×10^0
20.0 MeV	6.802×10^1	3.930				3.930	2.945×10^0
30.0 MeV	8.509×10^1	3.057				3.057	5.870×10^0
40.0 MeV	1.003×10^2	2.615				2.615	9.430×10^0
80.0 MeV	1.527×10^2	1.971				1.971	2.760×10^1
100. MeV	1.764×10^2	1.857				1.857	3.809×10^1
140. MeV	2.218×10^2	1.745				1.745	6.041×10^1
200. MeV	2.868×10^2	1.685				1.685	9.551×10^1
283. MeV	3.738×10^2	1.668			0.000	1.668	*Minimum ionization*
300. MeV	3.917×10^2	1.668			0.000	1.668	1.553×10^2
400. MeV	4.945×10^2	1.681			0.000	1.681	2.151×10^2
800. MeV	8.995×10^2	1.762	0.000		0.000	1.763	4.473×10^2
1.00 GeV	1.101×10^3	1.796	0.000		0.000	1.797	5.596×10^2
1.40 GeV	1.502×10^3	1.851	0.001	0.000	0.001	1.853	7.787×10^2
2.00 GeV	2.103×10^3	1.911	0.001	0.000	0.001	1.913	1.097×10^3
3.00 GeV	3.104×10^3	1.978	0.001	0.001	0.001	1.982	1.610×10^3
4.00 GeV	4.104×10^3	2.024	0.002	0.002	0.002	2.030	2.108×10^3
8.00 GeV	8.105×10^3	2.129	0.005	0.005	0.004	2.142	4.020×10^3
10.0 GeV	1.011×10^4	2.160	0.007	0.007	0.005	2.178	4.946×10^3
14.0 GeV	1.411×10^4	2.205	0.010	0.011	0.006	2.233	6.758×10^3
20.0 GeV	2.011×10^4	2.250	0.016	0.018	0.009	2.294	9.408×10^3
30.0 GeV	3.011×10^4	2.299	0.026	0.032	0.013	2.370	1.369×10^4
40.0 GeV	4.011×10^4	2.331	0.037	0.047	0.017	2.432	1.786×10^4
80.0 GeV	8.011×10^4	2.404	0.083	0.113	0.033	2.634	3.364×10^4
100. GeV	1.001×10^5	2.427	0.108	0.149	0.041	2.725	4.110×10^4
140. GeV	1.401×10^5	2.461	0.159	0.223	0.057	2.899	5.533×10^4
200. GeV	2.001×10^5	2.496	0.239	0.340	0.081	3.156	7.515×10^4
300. GeV	3.001×10^5	2.536	0.376	0.539	0.121	3.571	1.049×10^5
400. GeV	4.001×10^5	2.564	0.518	0.745	0.161	3.988	1.314×10^5
699. GeV	6.990×10^5	2.619	0.956	1.379	0.284	5.239	*Muon critical energy*
800. GeV	8.001×10^5	2.633	1.107	1.598	0.326	5.664	2.151×10^5
1.00 TeV	1.000×10^6	2.655	1.411	2.038	0.410	6.514	2.481×10^5
1.40 TeV	1.400×10^6	2.689	2.022	2.913	0.581	8.205	3.027×10^5
2.00 TeV	2.000×10^6	2.725	2.959	4.252	0.841	10.778	3.663×10^5
3.00 TeV	3.000×10^6	2.767	4.528	6.479	1.288	15.063	4.444×10^5
4.00 TeV	4.000×10^6	2.798	6.122	8.735	1.743	19.397	5.028×10^5
8.00 TeV	8.000×10^6	2.872	12.564	17.815	3.633	36.885	6.498×10^5
10.0 TeV	1.000×10^7	2.896	15.817	22.385	4.606	45.705	6.985×10^5
14.0 TeV	1.400×10^7	2.934	22.310	31.494	6.609	63.347	7.725×10^5
20.0 TeV	2.000×10^7	2.974	32.124	45.226	9.683	90.007	8.516×10^5
30.0 TeV	3.000×10^7	3.021	48.452	68.081	15.014	134.568	9.418×10^5
40.0 TeV	4.000×10^7	3.054	64.854	91.005	20.482	179.395	1.006×10^6
80.0 TeV	8.000×10^7	3.137	130.615	182.773	43.392	359.916	1.160×10^6
100. TeV	1.000×10^8	3.164	163.575	228.707	55.254	450.700	1.210×10^6