

## Muons in polytrifluorochloroethylene [(C<sub>2</sub>F<sub>3</sub>Cl)<sub>n</sub>]

$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
0.48081	2.100	120.7	0.07727	3.5085	0.1714	3.0265	3.8551	0.00
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod [MeV cm <sup>2</sup> /g]	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]	
10.0 MeV	$4.704 \times 10^1$	6.474				6.474	$8.577 \times 10^{-1}$	
14.0 MeV	$5.616 \times 10^1$	5.063				5.063	$1.564 \times 10^0$	
20.0 MeV	$6.802 \times 10^1$	3.963				3.963	$2.918 \times 10^0$	
30.0 MeV	$8.509 \times 10^1$	3.082				3.082	$5.819 \times 10^0$	
40.0 MeV	$1.003 \times 10^2$	2.636				2.636	$9.351 \times 10^0$	
80.0 MeV	$1.527 \times 10^2$	1.986				1.986	$2.738 \times 10^1$	
100. MeV	$1.764 \times 10^2$	1.866				1.866	$3.780 \times 10^1$	
140. MeV	$2.218 \times 10^2$	1.743				1.743	$6.008 \times 10^1$	
200. MeV	$2.868 \times 10^2$	1.675				1.675	$9.533 \times 10^1$	
298. MeV	$3.894 \times 10^2$	1.652			0.000	1.653		<i>Minimum ionization</i>
300. MeV	$3.917 \times 10^2$	1.652			0.000	1.653	$1.556 \times 10^2$	
400. MeV	$4.945 \times 10^2$	1.662			0.000	1.662	$2.160 \times 10^2$	
800. MeV	$8.995 \times 10^2$	1.734	0.000		0.000	1.735	$4.516 \times 10^2$	
1.00 GeV	$1.101 \times 10^3$	1.766	0.000		0.000	1.767	$5.658 \times 10^2$	
1.40 GeV	$1.502 \times 10^3$	1.817	0.000	0.000	0.001	1.819	$7.888 \times 10^2$	
2.00 GeV	$2.103 \times 10^3$	1.873	0.001	0.000	0.001	1.875	$1.113 \times 10^3$	
3.00 GeV	$3.104 \times 10^3$	1.937	0.001	0.001	0.001	1.941	$1.637 \times 10^3$	
4.00 GeV	$4.104 \times 10^3$	1.981	0.002	0.002	0.002	1.986	$2.146 \times 10^3$	
8.00 GeV	$8.105 \times 10^3$	2.081	0.005	0.005	0.004	2.095	$4.101 \times 10^3$	
10.0 GeV	$1.011 \times 10^4$	2.111	0.006	0.007	0.005	2.129	$5.047 \times 10^3$	
14.0 GeV	$1.411 \times 10^4$	2.155	0.010	0.011	0.006	2.182	$6.902 \times 10^3$	
20.0 GeV	$2.011 \times 10^4$	2.199	0.015	0.018	0.009	2.241	$9.613 \times 10^3$	
30.0 GeV	$3.011 \times 10^4$	2.247	0.025	0.031	0.013	2.315	$1.400 \times 10^4$	
40.0 GeV	$4.011 \times 10^4$	2.278	0.035	0.045	0.017	2.376	$1.826 \times 10^4$	
80.0 GeV	$8.011 \times 10^4$	2.351	0.080	0.108	0.033	2.573	$3.441 \times 10^4$	
100. GeV	$1.001 \times 10^5$	2.374	0.104	0.142	0.041	2.661	$4.205 \times 10^4$	
140. GeV	$1.401 \times 10^5$	2.408	0.153	0.214	0.057	2.831	$5.662 \times 10^4$	
200. GeV	$2.001 \times 10^5$	2.443	0.229	0.326	0.081	3.080	$7.693 \times 10^4$	
300. GeV	$3.001 \times 10^5$	2.483	0.361	0.517	0.121	3.482	$1.074 \times 10^5$	
400. GeV	$4.001 \times 10^5$	2.511	0.497	0.715	0.162	3.885	$1.346 \times 10^5$	
709. GeV	$7.094 \times 10^5$	2.568	0.933	1.346	0.289	5.136		<i>Muon critical energy</i>
800. GeV	$8.001 \times 10^5$	2.580	1.063	1.535	0.327	5.505	$2.207 \times 10^5$	
1.00 TeV	$1.000 \times 10^6$	2.602	1.355	1.957	0.411	6.326	$2.546 \times 10^5$	
1.40 TeV	$1.400 \times 10^6$	2.636	1.942	2.798	0.583	7.960	$3.108 \times 10^5$	
2.00 TeV	$2.000 \times 10^6$	2.673	2.843	4.084	0.844	10.445	$3.764 \times 10^5$	
3.00 TeV	$3.000 \times 10^6$	2.715	4.351	6.225	1.293	14.584	$4.571 \times 10^5$	
4.00 TeV	$4.000 \times 10^6$	2.745	5.882	8.393	1.749	18.771	$5.174 \times 10^5$	
8.00 TeV	$8.000 \times 10^6$	2.820	12.075	17.121	3.648	35.664	$6.694 \times 10^5$	
10.0 TeV	$1.000 \times 10^7$	2.845	15.203	21.514	4.625	44.186	$7.197 \times 10^5$	
14.0 TeV	$1.400 \times 10^7$	2.882	21.444	30.270	6.636	61.233	$7.963 \times 10^5$	
20.0 TeV	$2.000 \times 10^7$	2.922	30.879	43.470	9.724	86.996	$8.781 \times 10^5$	
30.0 TeV	$3.000 \times 10^7$	2.969	46.577	65.441	15.079	130.066	$9.715 \times 10^5$	
40.0 TeV	$4.000 \times 10^7$	3.003	62.347	87.477	20.571	173.399	$1.038 \times 10^6$	
80.0 TeV	$8.000 \times 10^7$	3.085	125.572	175.693	43.590	347.941	$1.198 \times 10^6$	
100. TeV	$1.000 \times 10^8$	3.113	157.261	219.849	55.511	435.734	$1.249 \times 10^6$	