

## Muons in trichloroethylene (C<sub>2</sub>HCl<sub>3</sub>)

$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
0.48710	1.460	148.1	0.18272	3.0137	0.1803	2.9140	4.6148	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	$4.704 \times 10^1$	6.374				6.374	$8.731 \times 10^{-1}$	
14.0 MeV	$5.616 \times 10^1$	4.990				4.990	$1.590 \times 10^0$	
20.0 MeV	$6.802 \times 10^1$	3.910				3.910	$2.963 \times 10^0$	
30.0 MeV	$8.509 \times 10^1$	3.044				3.045	$5.902 \times 10^0$	
40.0 MeV	$1.003 \times 10^2$	2.606				2.606	$9.475 \times 10^0$	
80.0 MeV	$1.527 \times 10^2$	1.967				1.967	$2.770 \times 10^1$	
100. MeV	$1.764 \times 10^2$	1.851				1.851	$3.820 \times 10^1$	
140. MeV	$2.218 \times 10^2$	1.735				1.735	$6.062 \times 10^1$	
200. MeV	$2.868 \times 10^2$	1.672				1.672	$9.598 \times 10^1$	
280. MeV	$3.708 \times 10^2$	1.656			0.000	1.656	<i>Minimum ionization</i>	
300. MeV	$3.917 \times 10^2$	1.656			0.000	1.656	$1.562 \times 10^2$	
400. MeV	$4.945 \times 10^2$	1.670			0.000	1.670	$2.164 \times 10^2$	
800. MeV	$8.995 \times 10^2$	1.753	0.000		0.000	1.754	$4.500 \times 10^2$	
1.00 GeV	$1.101 \times 10^3$	1.788	0.000		0.000	1.789	$5.629 \times 10^2$	
1.40 GeV	$1.502 \times 10^3$	1.844	0.001	0.000	0.001	1.846	$7.828 \times 10^2$	
2.00 GeV	$2.103 \times 10^3$	1.905	0.001	0.001	0.001	1.908	$1.102 \times 10^3$	
3.00 GeV	$3.104 \times 10^3$	1.974	0.002	0.001	0.001	1.979	$1.616 \times 10^3$	
4.00 GeV	$4.104 \times 10^3$	2.022	0.003	0.002	0.002	2.028	$2.115 \times 10^3$	
8.00 GeV	$8.105 \times 10^3$	2.129	0.007	0.006	0.004	2.146	$4.026 \times 10^3$	
10.0 GeV	$1.011 \times 10^4$	2.161	0.009	0.009	0.005	2.183	$4.950 \times 10^3$	
14.0 GeV	$1.411 \times 10^4$	2.207	0.013	0.014	0.006	2.241	$6.757 \times 10^3$	
20.0 GeV	$2.011 \times 10^4$	2.253	0.020	0.024	0.009	2.306	$9.394 \times 10^3$	
30.0 GeV	$3.011 \times 10^4$	2.302	0.033	0.041	0.013	2.389	$1.365 \times 10^4$	
40.0 GeV	$4.011 \times 10^4$	2.334	0.047	0.060	0.017	2.459	$1.778 \times 10^4$	
80.0 GeV	$8.011 \times 10^4$	2.408	0.107	0.145	0.032	2.692	$3.330 \times 10^4$	
100. GeV	$1.001 \times 10^5$	2.431	0.138	0.190	0.040	2.800	$4.058 \times 10^4$	
140. GeV	$1.401 \times 10^5$	2.465	0.203	0.285	0.056	3.010	$5.435 \times 10^4$	
200. GeV	$2.001 \times 10^5$	2.501	0.305	0.435	0.080	3.321	$7.332 \times 10^4$	
300. GeV	$3.001 \times 10^5$	2.542	0.479	0.688	0.119	3.829	$1.013 \times 10^5$	
400. GeV	$4.001 \times 10^5$	2.570	0.660	0.951	0.159	4.341	$1.259 \times 10^5$	
569. GeV	$5.692 \times 10^5$	2.606	0.973	1.406	0.227	5.212	<i>Muon critical energy</i>	
800. GeV	$8.001 \times 10^5$	2.640	1.409	2.034	0.321	6.405	$2.013 \times 10^5$	
1.00 TeV	$1.000 \times 10^6$	2.663	1.795	2.590	0.404	7.452	$2.302 \times 10^5$	
1.40 TeV	$1.400 \times 10^6$	2.697	2.571	3.700	0.572	9.540	$2.775 \times 10^5$	
2.00 TeV	$2.000 \times 10^6$	2.734	3.760	5.397	0.828	12.720	$3.318 \times 10^5$	
3.00 TeV	$3.000 \times 10^6$	2.777	5.749	8.219	1.268	18.014	$3.976 \times 10^5$	
4.00 TeV	$4.000 \times 10^6$	2.808	7.768	11.076	1.715	23.367	$4.462 \times 10^5$	
8.00 TeV	$8.000 \times 10^6$	2.883	15.928	22.570	3.574	44.956	$5.675 \times 10^5$	
10.0 TeV	$1.000 \times 10^7$	2.908	20.047	28.354	4.531	55.840	$6.073 \times 10^5$	
14.0 TeV	$1.400 \times 10^7$	2.946	28.270	39.884	6.498	77.599	$6.678 \times 10^5$	
20.0 TeV	$2.000 \times 10^7$	2.987	40.696	57.261	9.518	110.463	$7.323 \times 10^5$	
30.0 TeV	$3.000 \times 10^7$	3.034	61.359	86.189	14.751	165.334	$8.058 \times 10^5$	
40.0 TeV	$4.000 \times 10^7$	3.068	82.110	115.200	20.117	220.495	$8.580 \times 10^5$	
80.0 TeV	$8.000 \times 10^7$	3.152	165.302	231.329	42.584	442.367	$9.836 \times 10^5$	
100. TeV	$1.000 \times 10^8$	3.180	206.995	289.453	54.212	553.840	$1.024 \times 10^6$	