

## Muons in n-pentane (C<sub>5</sub>H<sub>12</sub>)

	$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
	0.58212	0.626	53.6	0.10809	3.5265	0.2086	2.5855	3.2504	0.00
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]		
10.0 MeV	$4.704 \times 10^1$	8.716				8.716	$6.322 \times 10^{-1}$		
14.0 MeV	$5.616 \times 10^1$	6.788				6.788	$1.158 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	5.293				5.293	$2.170 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	4.100				4.100	$4.347 \times 10^0$		
40.0 MeV	$1.003 \times 10^2$	3.498				3.498	$7.005 \times 10^0$		
80.0 MeV	$1.527 \times 10^2$	2.620				2.620	$2.064 \times 10^1$		
100. MeV	$1.764 \times 10^2$	2.460				2.460	$2.854 \times 10^1$		
140. MeV	$2.218 \times 10^2$	2.289				2.289	$4.548 \times 10^1$		
200. MeV	$2.868 \times 10^2$	2.189				2.189	$7.239 \times 10^1$		
300. MeV	$3.917 \times 10^2$	2.149			0.000	2.149	$1.186 \times 10^2$		
328. MeV	$4.211 \times 10^2$	2.148			0.000	2.148	<i>Minimum ionization</i>		
400. MeV	$4.945 \times 10^2$	2.153			0.000	2.153	$1.652 \times 10^2$		
800. MeV	$8.995 \times 10^2$	2.228	0.000		0.000	2.229	$3.478 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	2.263	0.000		0.000	2.264	$4.369 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	2.320	0.000		0.001	2.321	$6.113 \times 10^2$		
2.00 GeV	$2.103 \times 10^3$	2.383	0.000	0.000	0.001	2.385	$8.661 \times 10^2$		
3.00 GeV	$3.104 \times 10^3$	2.455	0.001	0.000	0.001	2.457	$1.279 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	2.504	0.001	0.001	0.002	2.508	$1.681 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	2.619	0.003	0.003	0.004	2.628	$3.235 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	2.654	0.004	0.004	0.005	2.666	$3.990 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	2.705	0.006	0.006	0.007	2.723	$5.473 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	2.756	0.009	0.010	0.009	2.784	$7.651 \times 10^3$		
30.0 GeV	$3.011 \times 10^4$	2.812	0.014	0.017	0.014	2.858	$1.119 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	2.850	0.020	0.026	0.018	2.914	$1.466 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	2.938	0.047	0.063	0.035	3.082	$2.798 \times 10^4$		
100. GeV	$1.001 \times 10^5$	2.965	0.061	0.083	0.043	3.152	$3.440 \times 10^4$		
140. GeV	$1.401 \times 10^5$	3.006	0.090	0.124	0.060	3.280	$4.683 \times 10^4$		
200. GeV	$2.001 \times 10^5$	3.049	0.135	0.191	0.085	3.460	$6.463 \times 10^4$		
300. GeV	$3.001 \times 10^5$	3.097	0.214	0.304	0.128	3.743	$9.241 \times 10^4$		
400. GeV	$4.001 \times 10^5$	3.131	0.296	0.422	0.170	4.020	$1.182 \times 10^5$		
800. GeV	$8.001 \times 10^5$	3.215	0.638	0.916	0.343	5.112	$2.062 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	3.242	0.814	1.171	0.431	5.659	$2.434 \times 10^5$		
1.33 TeV	$1.329 \times 10^6$	3.277	1.107	1.589	0.580	6.553	<i>Muon critical energy</i>		
1.40 TeV	$1.400 \times 10^6$	3.283	1.171	1.680	0.612	6.747	$3.080 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	3.327	1.720	2.462	0.886	8.396	$3.876 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	3.378	2.642	3.762	1.359	11.141	$4.907 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	3.415	3.581	5.083	1.839	13.918	$5.708 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	3.505	7.388	10.405	3.841	25.139	$7.817 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	3.535	9.316	13.086	4.873	30.811	$8.534 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	3.580	13.165	18.428	7.000	42.174	$9.640 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	3.629	18.993	26.487	10.270	59.380	$1.083 \times 10^6$		
30.0 TeV	$3.000 \times 10^7$	3.686	28.699	39.893	15.951	88.230	$1.221 \times 10^6$		
40.0 TeV	$4.000 \times 10^7$	3.726	38.464	53.345	21.784	117.320	$1.319 \times 10^6$		
80.0 TeV	$8.000 \times 10^7$	3.827	77.618	107.201	46.292	234.937	$1.555 \times 10^6$		
100. TeV	$1.000 \times 10^8$	3.860	97.249	134.162	59.006	294.276	$1.631 \times 10^6$		