

## Muons in polystyrene $[(C_6H_5CHCH_2)_n]$

	$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
	0.53768	1.060	68.7	0.16454	3.2224	0.1647	2.5031	3.2999	0.00
$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]		
10.0 MeV	$4.704 \times 10^1$	7.803				7.803	$7.077 \times 10^{-1}$		
14.0 MeV	$5.616 \times 10^1$	6.084				6.084	$1.294 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	4.749				4.749	$2.424 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	3.683				3.683	$4.848 \times 10^0$		
40.0 MeV	$1.003 \times 10^2$	3.144				3.144	$7.806 \times 10^0$		
80.0 MeV	$1.527 \times 10^2$	2.359				2.359	$2.296 \times 10^1$		
100. MeV	$1.764 \times 10^2$	2.210				2.211	$3.174 \times 10^1$		
140. MeV	$2.218 \times 10^2$	2.058				2.058	$5.059 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.970				1.971	$8.049 \times 10^1$		
300. MeV	$3.917 \times 10^2$	1.937			0.000	1.937	$1.318 \times 10^2$		
318. MeV	$4.105 \times 10^2$	1.936			0.000	1.936	<i>Minimum ionization</i>		
400. MeV	$4.945 \times 10^2$	1.942			0.000	1.943	$1.834 \times 10^2$		
800. MeV	$8.995 \times 10^2$	2.015	0.000		0.000	2.015	$3.856 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	2.048	0.000		0.000	2.049	$4.841 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	2.102	0.000		0.001	2.103	$6.767 \times 10^2$		
2.00 GeV	$2.103 \times 10^3$	2.161	0.000	0.000	0.001	2.163	$9.578 \times 10^2$		
3.00 GeV	$3.104 \times 10^3$	2.228	0.001	0.001	0.001	2.231	$1.413 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	2.275	0.001	0.001	0.002	2.279	$1.856 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	2.382	0.003	0.003	0.004	2.391	$3.564 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	2.414	0.004	0.004	0.005	2.427	$4.394 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	2.461	0.006	0.006	0.007	2.480	$6.023 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	2.509	0.009	0.010	0.009	2.538	$8.413 \times 10^3$		
30.0 GeV	$3.011 \times 10^4$	2.560	0.015	0.018	0.014	2.607	$1.230 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	2.596	0.021	0.027	0.018	2.662	$1.609 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	2.677	0.049	0.065	0.035	2.825	$3.065 \times 10^4$		
100. GeV	$1.001 \times 10^5$	2.702	0.063	0.086	0.043	2.895	$3.765 \times 10^4$		
140. GeV	$1.401 \times 10^5$	2.740	0.093	0.130	0.059	3.022	$5.116 \times 10^4$		
200. GeV	$2.001 \times 10^5$	2.779	0.141	0.199	0.084	3.203	$7.044 \times 10^4$		
300. GeV	$3.001 \times 10^5$	2.824	0.222	0.316	0.126	3.489	$1.003 \times 10^5$		
400. GeV	$4.001 \times 10^5$	2.855	0.307	0.439	0.168	3.770	$1.279 \times 10^5$		
800. GeV	$8.001 \times 10^5$	2.932	0.661	0.951	0.340	4.884	$2.208 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.957	0.844	1.216	0.428	5.445	$2.596 \times 10^5$		
1.18 TeV	$1.183 \times 10^6$	2.976	1.011	1.456	0.509	5.953	<i>Muon critical energy</i>		
1.40 TeV	$1.400 \times 10^6$	2.995	1.212	1.743	0.606	6.558	$3.265 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	3.036	1.779	2.552	0.878	8.246	$4.079 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	3.083	2.730	3.899	1.346	11.059	$5.123 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	3.117	3.698	5.266	1.822	13.903	$5.928 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	3.201	7.621	10.772	3.804	25.399	$8.025 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	3.228	9.606	13.547	4.825	31.207	$8.734 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	3.270	13.568	19.074	6.931	42.843	$9.824 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	3.315	19.563	27.412	10.166	60.456	$1.100 \times 10^6$		
30.0 TeV	$3.000 \times 10^7$	3.367	29.546	41.284	15.784	89.982	$1.234 \times 10^6$		
40.0 TeV	$4.000 \times 10^7$	3.405	39.586	55.203	21.551	119.744	$1.331 \times 10^6$		
80.0 TeV	$8.000 \times 10^7$	3.498	79.826	110.926	45.767	240.016	$1.562 \times 10^6$		
100. TeV	$1.000 \times 10^8$	3.528	99.994	138.821	58.325	300.668	$1.636 \times 10^6$		