

## Muons in acetylene (CHCH)

$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
0.53768	$1.097 \times 10^{-3}$	58.2	0.12167	3.4277	1.6017	4.0074	9.8419	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	$4.704 \times 10^1$	7.968				7.968	$6.921 \times 10^{-1}$	
14.0 MeV	$5.616 \times 10^1$	6.208				6.208	$1.267 \times 10^0$	
20.0 MeV	$6.802 \times 10^1$	4.843				4.843	$2.374 \times 10^0$	
30.0 MeV	$8.509 \times 10^1$	3.753				3.753	$4.753 \times 10^0$	
40.0 MeV	$1.003 \times 10^2$	3.202				3.202	$7.656 \times 10^0$	
80.0 MeV	$1.527 \times 10^2$	2.399				2.400	$2.255 \times 10^1$	
100. MeV	$1.764 \times 10^2$	2.255				2.256	$3.117 \times 10^1$	
140. MeV	$2.218 \times 10^2$	2.113				2.114	$4.958 \times 10^1$	
200. MeV	$2.868 \times 10^2$	2.040				2.040	$7.858 \times 10^1$	
263. MeV	$3.537 \times 10^2$	2.025			0.000	2.025	<i>Minimum ionization</i>	
300. MeV	$3.917 \times 10^2$	2.028			0.000	2.028	$1.279 \times 10^2$	
400. MeV	$4.945 \times 10^2$	2.053			0.000	2.053	$1.769 \times 10^2$	
800. MeV	$8.995 \times 10^2$	2.184	0.000		0.000	2.185	$3.657 \times 10^2$	
1.00 GeV	$1.101 \times 10^3$	2.240	0.000		0.000	2.241	$4.560 \times 10^2$	
1.40 GeV	$1.502 \times 10^3$	2.332	0.000		0.001	2.333	$6.308 \times 10^2$	
2.00 GeV	$2.103 \times 10^3$	2.435	0.000	0.000	0.001	2.437	$8.822 \times 10^2$	
3.00 GeV	$3.104 \times 10^3$	2.557	0.001	0.001	0.001	2.560	$1.282 \times 10^3$	
4.00 GeV	$4.104 \times 10^3$	2.645	0.001	0.001	0.002	2.649	$1.666 \times 10^3$	
8.00 GeV	$8.105 \times 10^3$	2.820	0.003	0.003	0.004	2.829	$3.120 \times 10^3$	
10.0 GeV	$1.011 \times 10^4$	2.870	0.004	0.004	0.005	2.883	$3.820 \times 10^3$	
14.0 GeV	$1.411 \times 10^4$	2.942	0.006	0.006	0.007	2.961	$5.188 \times 10^3$	
20.0 GeV	$2.011 \times 10^4$	3.011	0.009	0.010	0.009	3.040	$7.186 \times 10^3$	
30.0 GeV	$3.011 \times 10^4$	3.082	0.015	0.018	0.014	3.130	$1.042 \times 10^4$	
40.0 GeV	$4.011 \times 10^4$	3.129	0.021	0.027	0.018	3.195	$1.359 \times 10^4$	
80.0 GeV	$8.011 \times 10^4$	3.229	0.049	0.065	0.035	3.378	$2.574 \times 10^4$	
100. GeV	$1.001 \times 10^5$	3.258	0.063	0.086	0.043	3.451	$3.159 \times 10^4$	
140. GeV	$1.401 \times 10^5$	3.300	0.093	0.130	0.059	3.583	$4.297 \times 10^4$	
200. GeV	$2.001 \times 10^5$	3.343	0.141	0.199	0.084	3.767	$5.929 \times 10^4$	
300. GeV	$3.001 \times 10^5$	3.390	0.222	0.316	0.126	4.055	$8.486 \times 10^4$	
400. GeV	$4.001 \times 10^5$	3.422	0.307	0.439	0.168	4.337	$1.087 \times 10^5$	
800. GeV	$8.001 \times 10^5$	3.500	0.661	0.951	0.340	5.452	$1.908 \times 10^5$	
1.00 TeV	$1.000 \times 10^6$	3.525	0.844	1.216	0.428	6.012	$2.257 \times 10^5$	
1.40 TeV	$1.400 \times 10^6$	3.563	1.212	1.743	0.606	7.125	$2.867 \times 10^5$	
1.40 TeV	$1.400 \times 10^6$	3.563	1.213	1.744	0.607	7.126	<i>Muon critical energy</i>	
2.00 TeV	$2.000 \times 10^6$	3.604	1.779	2.552	0.878	8.814	$3.623 \times 10^5$	
3.00 TeV	$3.000 \times 10^6$	3.651	2.730	3.899	1.346	11.626	$4.608 \times 10^5$	
4.00 TeV	$4.000 \times 10^6$	3.685	3.698	5.266	1.822	14.471	$5.378 \times 10^5$	
8.00 TeV	$8.000 \times 10^6$	3.768	7.621	10.772	3.804	25.966	$7.413 \times 10^5$	
10.0 TeV	$1.000 \times 10^7$	3.796	9.606	13.547	4.825	31.774	$8.108 \times 10^5$	
14.0 TeV	$1.400 \times 10^7$	3.838	13.568	19.074	6.931	43.410	$9.181 \times 10^5$	
20.0 TeV	$2.000 \times 10^7$	3.883	19.563	27.412	10.166	61.024	$1.034 \times 10^6$	
30.0 TeV	$3.000 \times 10^7$	3.935	29.546	41.284	15.784	90.549	$1.168 \times 10^6$	
40.0 TeV	$4.000 \times 10^7$	3.972	39.586	55.203	21.551	120.312	$1.263 \times 10^6$	
80.0 TeV	$8.000 \times 10^7$	4.065	79.826	110.926	45.767	240.583	$1.494 \times 10^6$	
100. TeV	$1.000 \times 10^8$	4.096	99.994	138.821	58.325	301.236	$1.568 \times 10^6$	