

**Table 205: Muons in Naphtalene (C<sub>10</sub>H<sub>8</sub>)**

$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
0.53053	1.145	68.4	0.14766	3.2654	0.1374	2.5429	3.2274	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	$4.704 \times 10^1$	7.703				7.703	$7.168 \times 10^{-1}$	
14.0 MeV	$5.616 \times 10^1$	6.006				6.006	$1.311 \times 10^0$	
20.0 MeV	$6.802 \times 10^1$	4.689				4.689	$2.455 \times 10^0$	
30.0 MeV	$8.509 \times 10^1$	3.636				3.636	$4.911 \times 10^0$	
40.0 MeV	$1.003 \times 10^2$	3.104				3.104	$7.907 \times 10^0$	
80.0 MeV	$1.527 \times 10^2$	2.326				2.326	$2.326 \times 10^1$	
100. MeV	$1.764 \times 10^2$	2.178				2.178	$3.217 \times 10^1$	
140. MeV	$2.218 \times 10^2$	2.028				2.028	$5.130 \times 10^1$	
200. MeV	$2.868 \times 10^2$	1.941				1.941	$8.166 \times 10^1$	
300. MeV	$3.917 \times 10^2$	1.907			0.000	1.907	$1.338 \times 10^2$	
318. MeV	$4.105 \times 10^2$	1.906			0.000	1.907	<i>Minimum ionization</i>	
400. MeV	$4.945 \times 10^2$	1.912			0.000	1.913	$1.862 \times 10^2$	
800. MeV	$8.995 \times 10^2$	1.983	0.000		0.000	1.984	$3.916 \times 10^2$	
1.00 GeV	$1.101 \times 10^3$	2.016	0.000		0.000	2.016	$4.916 \times 10^2$	
1.40 GeV	$1.502 \times 10^3$	2.069	0.000		0.001	2.070	$6.873 \times 10^2$	
2.00 GeV	$2.103 \times 10^3$	2.127	0.000	0.000	0.001	2.129	$9.729 \times 10^2$	
3.00 GeV	$3.104 \times 10^3$	2.193	0.001	0.001	0.001	2.196	$1.435 \times 10^3$	
4.00 GeV	$4.104 \times 10^3$	2.239	0.001	0.001	0.002	2.243	$1.885 \times 10^3$	
8.00 GeV	$8.105 \times 10^3$	2.345	0.003	0.003	0.004	2.354	$3.620 \times 10^3$	
10.0 GeV	$1.011 \times 10^4$	2.377	0.004	0.004	0.005	2.389	$4.463 \times 10^3$	
14.0 GeV	$1.411 \times 10^4$	2.423	0.006	0.006	0.007	2.442	$6.118 \times 10^3$	
20.0 GeV	$2.011 \times 10^4$	2.470	0.009	0.011	0.009	2.499	$8.545 \times 10^3$	
30.0 GeV	$3.011 \times 10^4$	2.521	0.015	0.018	0.014	2.568	$1.249 \times 10^4$	
40.0 GeV	$4.011 \times 10^4$	2.556	0.021	0.027	0.018	2.622	$1.634 \times 10^4$	
80.0 GeV	$8.011 \times 10^4$	2.636	0.049	0.066	0.034	2.785	$3.112 \times 10^4$	
100. GeV	$1.001 \times 10^5$	2.661	0.064	0.087	0.043	2.854	$3.821 \times 10^4$	
140. GeV	$1.401 \times 10^5$	2.698	0.094	0.130	0.059	2.982	$5.191 \times 10^4$	
200. GeV	$2.001 \times 10^5$	2.737	0.142	0.200	0.084	3.163	$7.144 \times 10^4$	
300. GeV	$3.001 \times 10^5$	2.781	0.224	0.318	0.126	3.449	$1.017 \times 10^5$	
400. GeV	$4.001 \times 10^5$	2.812	0.309	0.442	0.168	3.731	$1.296 \times 10^5$	
800. GeV	$8.001 \times 10^5$	2.888	0.665	0.956	0.340	4.849	$2.233 \times 10^5$	
1.00 TeV	$1.000 \times 10^6$	2.913	0.848	1.223	0.427	5.411	$2.623 \times 10^5$	
1.16 TeV	$1.161 \times 10^6$	2.929	0.996	1.435	0.498	5.859	<i>Muon critical energy</i>	
1.40 TeV	$1.400 \times 10^6$	2.950	1.219	1.753	0.606	6.528	$3.296 \times 10^5$	
2.00 TeV	$2.000 \times 10^6$	2.991	1.789	2.567	0.877	8.223	$4.113 \times 10^5$	
3.00 TeV	$3.000 \times 10^6$	3.037	2.744	3.921	1.344	11.047	$5.159 \times 10^5$	
4.00 TeV	$4.000 \times 10^6$	3.071	3.717	5.295	1.819	13.902	$5.964 \times 10^5$	
8.00 TeV	$8.000 \times 10^6$	3.153	7.659	10.832	3.798	25.442	$8.060 \times 10^5$	
10.0 TeV	$1.000 \times 10^7$	3.180	9.653	13.621	4.818	31.272	$8.768 \times 10^5$	
14.0 TeV	$1.400 \times 10^7$	3.221	13.633	19.178	6.919	42.951	$9.855 \times 10^5$	
20.0 TeV	$2.000 \times 10^7$	3.266	19.655	27.561	10.149	60.631	$1.102 \times 10^6$	
30.0 TeV	$3.000 \times 10^7$	3.317	29.682	41.508	15.757	90.264	$1.237 \times 10^6$	
40.0 TeV	$4.000 \times 10^7$	3.354	39.766	55.501	21.513	120.135	$1.333 \times 10^6$	
80.0 TeV	$8.000 \times 10^7$	3.446	80.181	111.525	45.682	240.834	$1.563 \times 10^6$	
100. TeV	$1.000 \times 10^8$	3.476	100.436	139.571	58.215	301.698	$1.637 \times 10^6$	