

**Table 256: Muons in Sucrose C<sub>12</sub>H<sub>22</sub>O<sub>11</sub>**

	$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
	0.53170	1.581	77.5	0.11301	3.3630	0.1341	2.6558	3.1526	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	$4.704 \times 10^1$	7.597				7.597	$7.277 \times 10^{-1}$		
14.0 MeV	$5.616 \times 10^1$	5.927				5.927	$1.330 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	4.629				4.629	$2.489 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	3.592				3.592	$4.975 \times 10^0$		
40.0 MeV	$1.003 \times 10^2$	3.068				3.068	$8.008 \times 10^0$		
80.0 MeV	$1.527 \times 10^2$	2.300				2.300	$2.354 \times 10^1$		
100. MeV	$1.764 \times 10^2$	2.153				2.154	$3.255 \times 10^1$		
140. MeV	$2.218 \times 10^2$	2.004				2.004	$5.190 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.918				1.918	$8.262 \times 10^1$		
300. MeV	$3.917 \times 10^2$	1.884			0.000	1.885	$1.354 \times 10^2$		
318. MeV	$4.105 \times 10^2$	1.884			0.000	1.884	<i>Minimum ionization</i>		
400. MeV	$4.945 \times 10^2$	1.890			0.000	1.890	$1.884 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.960	0.000		0.000	1.961	$3.963 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.993	0.000		0.000	1.993	$4.974 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	2.045	0.000		0.001	2.047	$6.953 \times 10^2$		
2.00 GeV	$2.103 \times 10^3$	2.104	0.001	0.000	0.001	2.106	$9.841 \times 10^2$		
3.00 GeV	$3.104 \times 10^3$	2.170	0.001	0.001	0.001	2.173	$1.451 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	2.217	0.001	0.001	0.002	2.221	$1.906 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	2.323	0.003	0.003	0.004	2.333	$3.658 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	2.355	0.004	0.004	0.005	2.369	$4.508 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	2.402	0.007	0.007	0.007	2.423	$6.177 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	2.449	0.011	0.012	0.009	2.481	$8.623 \times 10^3$		
30.0 GeV	$3.011 \times 10^4$	2.500	0.017	0.021	0.013	2.552	$1.259 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	2.535	0.025	0.031	0.018	2.609	$1.647 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	2.615	0.056	0.076	0.034	2.781	$3.129 \times 10^4$		
100. GeV	$1.001 \times 10^5$	2.640	0.073	0.100	0.042	2.855	$3.839 \times 10^4$		
140. GeV	$1.401 \times 10^5$	2.677	0.108	0.150	0.059	2.994	$5.206 \times 10^4$		
200. GeV	$2.001 \times 10^5$	2.716	0.162	0.229	0.084	3.191	$7.147 \times 10^4$		
300. GeV	$3.001 \times 10^5$	2.761	0.256	0.364	0.125	3.506	$1.013 \times 10^5$		
400. GeV	$4.001 \times 10^5$	2.792	0.353	0.505	0.167	3.817	$1.287 \times 10^5$		
800. GeV	$8.001 \times 10^5$	2.868	0.758	1.091	0.337	5.054	$2.194 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.893	0.967	1.394	0.424	5.678	$2.568 \times 10^5$		
1.04 TeV	$1.038 \times 10^6$	2.897	1.006	1.450	0.440	5.794	<i>Muon critical energy</i>		
1.40 TeV	$1.400 \times 10^6$	2.930	1.389	1.997	0.601	6.917	$3.205 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.971	2.036	2.921	0.870	8.798	$3.972 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	3.017	3.122	4.459	1.334	11.932	$4.945 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	3.051	4.226	6.019	1.805	15.101	$5.688 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	3.133	8.699	12.302	3.767	27.902	$7.608 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	3.161	10.962	15.466	4.778	34.367	$8.252 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	3.202	15.476	21.772	6.861	47.311	$9.240 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	3.247	22.305	31.283	10.062	66.896	$1.030 \times 10^6$		
30.0 TeV	$3.000 \times 10^7$	3.298	33.676	47.108	15.617	99.699	$1.152 \times 10^6$		
40.0 TeV	$4.000 \times 10^7$	3.335	45.108	62.984	21.319	132.746	$1.239 \times 10^6$		
80.0 TeV	$8.000 \times 10^7$	3.427	90.947	126.542	45.248	266.165	$1.447 \times 10^6$		
100. TeV	$1.000 \times 10^8$	3.457	113.927	158.359	57.653	333.396	$1.514 \times 10^6$		