

## Muons in silica aerogel for $\rho = 0.2$ (0.03 H<sub>2</sub>O, 0.97 SiO<sub>2</sub>)

$\langle Z/A \rangle$	$\rho$ [g/cm <sup>3</sup> ]	$I$ [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
0.50093	0.200	139.2	0.26675	3.0000	0.6029	3.0000	6.4507	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	$4.704 \times 10^1$	6.613				6.613	$8.411 \times 10^{-1}$	
14.0 MeV	$5.616 \times 10^1$	5.175				5.175	$1.532 \times 10^0$	
20.0 MeV	$6.802 \times 10^1$	4.054				4.054	$2.857 \times 10^0$	
30.0 MeV	$8.509 \times 10^1$	3.155				3.155	$5.691 \times 10^0$	
40.0 MeV	$1.003 \times 10^2$	2.700				2.700	$9.140 \times 10^0$	
80.0 MeV	$1.527 \times 10^2$	2.037				2.037	$2.673 \times 10^1$	
100. MeV	$1.764 \times 10^2$	1.919				1.919	$3.687 \times 10^1$	
140. MeV	$2.218 \times 10^2$	1.804				1.805	$5.847 \times 10^1$	
200. MeV	$2.868 \times 10^2$	1.748				1.749	$9.237 \times 10^1$	
247. MeV	$3.366 \times 10^2$	1.740			0.000	1.740	<i>Minimum ionization</i>	
300. MeV	$3.917 \times 10^2$	1.745			0.000	1.746	$1.498 \times 10^2$	
400. MeV	$4.945 \times 10^2$	1.771			0.000	1.772	$2.066 \times 10^2$	
800. MeV	$8.995 \times 10^2$	1.883	0.000		0.000	1.884	$4.253 \times 10^2$	
1.00 GeV	$1.101 \times 10^3$	1.927	0.000		0.000	1.928	$5.302 \times 10^2$	
1.40 GeV	$1.502 \times 10^3$	1.996	0.001	0.000	0.001	1.997	$7.338 \times 10^2$	
2.00 GeV	$2.103 \times 10^3$	2.069	0.001	0.000	0.001	2.071	$1.028 \times 10^3$	
3.00 GeV	$3.104 \times 10^3$	2.150	0.001	0.001	0.001	2.154	$1.501 \times 10^3$	
4.00 GeV	$4.104 \times 10^3$	2.205	0.002	0.002	0.002	2.211	$1.959 \times 10^3$	
8.00 GeV	$8.105 \times 10^3$	2.327	0.005	0.005	0.004	2.341	$3.711 \times 10^3$	
10.0 GeV	$1.011 \times 10^4$	2.363	0.007	0.007	0.005	2.381	$4.558 \times 10^3$	
14.0 GeV	$1.411 \times 10^4$	2.414	0.010	0.011	0.006	2.441	$6.216 \times 10^3$	
20.0 GeV	$2.011 \times 10^4$	2.463	0.016	0.018	0.009	2.507	$8.639 \times 10^3$	
30.0 GeV	$3.011 \times 10^4$	2.516	0.026	0.032	0.013	2.586	$1.256 \times 10^4$	
40.0 GeV	$4.011 \times 10^4$	2.550	0.036	0.046	0.017	2.651	$1.638 \times 10^4$	
80.0 GeV	$8.011 \times 10^4$	2.627	0.083	0.112	0.033	2.855	$3.090 \times 10^4$	
100. GeV	$1.001 \times 10^5$	2.651	0.107	0.147	0.041	2.947	$3.779 \times 10^4$	
140. GeV	$1.401 \times 10^5$	2.686	0.158	0.220	0.057	3.122	$5.098 \times 10^4$	
200. GeV	$2.001 \times 10^5$	2.723	0.237	0.336	0.081	3.377	$6.945 \times 10^4$	
300. GeV	$3.001 \times 10^5$	2.764	0.373	0.533	0.122	3.793	$9.737 \times 10^4$	
400. GeV	$4.001 \times 10^5$	2.794	0.514	0.738	0.162	4.209	$1.224 \times 10^5$	
762. GeV	$7.625 \times 10^5$	2.861	1.044	1.505	0.312	5.722	<i>Muon critical energy</i>	
800. GeV	$8.001 \times 10^5$	2.866	1.100	1.586	0.328	5.880	$2.024 \times 10^5$	
1.00 TeV	$1.000 \times 10^6$	2.889	1.402	2.022	0.412	6.725	$2.342 \times 10^5$	
1.40 TeV	$1.400 \times 10^6$	2.924	2.010	2.891	0.584	8.410	$2.873 \times 10^5$	
2.00 TeV	$2.000 \times 10^6$	2.962	2.942	4.222	0.846	10.972	$3.496 \times 10^5$	
3.00 TeV	$3.000 \times 10^6$	3.006	4.502	6.434	1.295	15.238	$4.266 \times 10^5$	
4.00 TeV	$4.000 \times 10^6$	3.038	6.087	8.676	1.752	19.553	$4.844 \times 10^5$	
8.00 TeV	$8.000 \times 10^6$	3.116	12.495	17.697	3.653	36.963	$6.308 \times 10^5$	
10.0 TeV	$1.000 \times 10^7$	3.141	15.732	22.238	4.632	45.745	$6.793 \times 10^5$	
14.0 TeV	$1.400 \times 10^7$	3.180	22.193	31.290	6.647	63.311	$7.533 \times 10^5$	
20.0 TeV	$2.000 \times 10^7$	3.222	31.960	44.936	9.741	89.858	$8.325 \times 10^5$	
30.0 TeV	$3.000 \times 10^7$	3.271	48.207	67.647	15.104	134.229	$9.230 \times 10^5$	
40.0 TeV	$4.000 \times 10^7$	3.306	64.528	90.427	20.605	178.867	$9.873 \times 10^5$	
80.0 TeV	$8.000 \times 10^7$	3.392	129.977	181.618	43.661	358.650	$1.142 \times 10^6$	
100. TeV	$1.000 \times 10^8$	3.421	162.786	227.265	55.602	449.073	$1.192 \times 10^6$	