

Table 276: Muons in Water (liquid) (H₂O)

$\langle Z/A \rangle$	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
0.55509	1.000	79.7	0.09116	3.4773	0.2400	2.8004	3.5017	0.00
T	p [MeV/c]	Ionization	Brems	Pair prod [MeV cm ² /g]	Photonucl	Total	CSDA range [g/cm ²]	
10.0 MeV	4.704×10^1	7.902				7.902	6.998×10^{-1}	
14.0 MeV	5.616×10^1	6.166				6.166	1.279×10^0	
20.0 MeV	6.802×10^1	4.817				4.817	2.392×10^0	
30.0 MeV	8.509×10^1	3.738				3.738	4.782×10^0	
40.0 MeV	1.003×10^2	3.192				3.192	7.696×10^0	
80.0 MeV	1.527×10^2	2.398				2.398	2.261×10^1	
100. MeV	1.764×10^2	2.256				2.256	3.124×10^1	
140. MeV	2.218×10^2	2.103				2.104	4.968×10^1	
200. MeV	2.868×10^2	2.015				2.015	7.894×10^1	
300. MeV	3.917×10^2	1.981			0.000	1.981	1.291×10^2	
317. MeV	4.096×10^2	1.981			0.000	1.981	<i>Minimum ionization</i>	
400. MeV	4.945×10^2	1.987			0.000	1.988	1.796×10^2	
800. MeV	8.995×10^2	2.064	0.000		0.000	2.064	3.771×10^2	
1.00 GeV	1.101×10^3	2.098	0.000		0.000	2.099	4.732×10^2	
1.40 GeV	1.502×10^3	2.154	0.000		0.001	2.156	6.611×10^2	
2.00 GeV	2.103×10^3	2.216	0.001	0.000	0.001	2.218	9.353×10^2	
3.00 GeV	3.104×10^3	2.287	0.001	0.001	0.001	2.290	1.378×10^3	
4.00 GeV	4.104×10^3	2.336	0.001	0.001	0.002	2.341	1.810×10^3	
8.00 GeV	8.105×10^3	2.448	0.004	0.003	0.004	2.459	3.472×10^3	
10.0 GeV	1.011×10^4	2.482	0.005	0.005	0.005	2.497	4.279×10^3	
14.0 GeV	1.411×10^4	2.531	0.007	0.008	0.007	2.553	5.862×10^3	
20.0 GeV	2.011×10^4	2.581	0.011	0.013	0.009	2.615	8.183×10^3	
30.0 GeV	3.011×10^4	2.635	0.019	0.023	0.013	2.690	1.195×10^4	
40.0 GeV	4.011×10^4	2.671	0.027	0.034	0.018	2.749	1.563×10^4	
80.0 GeV	8.011×10^4	2.755	0.060	0.081	0.034	2.931	2.969×10^4	
100. GeV	1.001×10^5	2.781	0.078	0.107	0.042	3.009	3.642×10^4	
140. GeV	1.401×10^5	2.820	0.116	0.161	0.059	3.156	4.940×10^4	
200. GeV	2.001×10^5	2.861	0.174	0.246	0.084	3.365	6.780×10^4	
300. GeV	3.001×10^5	2.907	0.275	0.391	0.125	3.698	9.614×10^4	
400. GeV	4.001×10^5	2.940	0.379	0.542	0.167	4.028	1.220×10^5	
800. GeV	8.001×10^5	3.019	0.814	1.171	0.337	5.341	2.080×10^5	
1.00 TeV	1.000×10^6	3.045	1.038	1.496	0.423	6.003	2.433×10^5	
1.03 TeV	1.029×10^6	3.048	1.071	1.542	0.436	6.097	<i>Muon critical energy</i>	
1.40 TeV	1.400×10^6	3.084	1.491	2.142	0.601	7.318	3.036×10^5	
2.00 TeV	2.000×10^6	3.127	2.186	3.132	0.870	9.315	3.761×10^5	
3.00 TeV	3.000×10^6	3.175	3.352	4.781	1.332	12.640	4.679×10^5	
4.00 TeV	4.000×10^6	3.210	4.537	6.452	1.803	16.003	5.381×10^5	
8.00 TeV	8.000×10^6	3.296	9.338	13.185	3.763	29.583	7.191×10^5	
10.0 TeV	1.000×10^7	3.325	11.766	16.575	4.773	36.440	7.799×10^5	
14.0 TeV	1.400×10^7	3.368	16.613	23.331	6.854	50.166	8.731×10^5	
20.0 TeV	2.000×10^7	3.414	23.944	33.521	10.051	70.930	9.732×10^5	
30.0 TeV	3.000×10^7	3.468	36.151	50.475	15.600	105.695	1.088×10^6	
40.0 TeV	4.000×10^7	3.507	48.424	67.484	21.296	140.711	1.170×10^6	
80.0 TeV	8.000×10^7	3.603	97.657	135.575	45.199	282.035	1.367×10^6	
100. TeV	1.000×10^8	3.634	122.347	169.661	57.590	353.232	1.430×10^6	