

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	75.0	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	7.965				7.965	6.939×10^{-1}	
14.0 MeV	5.616×10^1	6.213				6.213	1.269×10^0	
20.0 MeV	6.802×10^1	4.852				4.852	2.374×10^0	
30.0 MeV	8.509×10^1	3.764				3.764	4.747×10^0	
40.0 MeV	1.003×10^2	3.214				3.214	7.640×10^0	
80.0 MeV	1.527×10^2	2.413				2.413	2.246×10^1	
100. MeV	1.764×10^2	2.270				2.270	3.103×10^1	
140. MeV	2.218×10^2	2.116				2.116	4.936×10^1	
200. MeV	2.868×10^2	2.026				2.026	7.844×10^1	
300. MeV	3.917×10^2	1.992			0.000	1.992	1.284×10^2	
318. MeV	4.105×10^2	1.992			0.000	1.992	<i>Minimum ionization</i>	
400. MeV	4.945×10^2	1.998			0.000	1.999	1.785×10^2	
800. MeV	8.995×10^2	2.074	0.000		0.000	2.075	3.750×10^2	
1.00 GeV	1.101×10^3	2.109	0.000		0.000	2.109	4.706×10^2	
1.40 GeV	1.502×10^3	2.165	0.000		0.001	2.166	6.576×10^2	
2.00 GeV	2.103×10^3	2.227	0.001	0.000	0.001	2.229	9.305×10^2	
3.00 GeV	3.104×10^3	2.297	0.001	0.001	0.001	2.300	1.372×10^3	
4.00 GeV	4.104×10^3	2.346	0.001	0.001	0.002	2.351	1.801×10^3	
8.00 GeV	8.105×10^3	2.458	0.004	0.003	0.004	2.470	3.456×10^3	
10.0 GeV	1.011×10^4	2.492	0.005	0.005	0.005	2.507	4.260×10^3	
14.0 GeV	1.411×10^4	2.542	0.007	0.008	0.007	2.564	5.837×10^3	
20.0 GeV	2.011×10^4	2.592	0.011	0.013	0.009	2.625	8.148×10^3	
30.0 GeV	3.011×10^4	2.645	0.019	0.023	0.013	2.701	1.190×10^4	
40.0 GeV	4.011×10^4	2.682	0.027	0.034	0.018	2.760	1.556×10^4	
80.0 GeV	8.011×10^4	2.766	0.060	0.081	0.034	2.942	2.958×10^4	
100. GeV	1.001×10^5	2.792	0.078	0.107	0.042	3.020	3.629×10^4	
140. GeV	1.401×10^5	2.831	0.116	0.161	0.059	3.166	4.922×10^4	
200. GeV	2.001×10^5	2.871	0.174	0.246	0.084	3.375	6.757×10^4	
300. GeV	3.001×10^5	2.917	0.275	0.391	0.125	3.709	9.581×10^4	
400. GeV	4.001×10^5	2.950	0.379	0.542	0.167	4.038	1.216×10^5	
800. GeV	8.001×10^5	3.030	0.814	1.171	0.337	5.351	2.074×10^5	
1.00 TeV	1.000×10^6	3.055	1.038	1.496	0.423	6.013	2.426×10^5	
1.03 TeV	1.032×10^6	3.059	1.074	1.547	0.438	6.118	<i>Muon critical energy</i>	
1.40 TeV	1.400×10^6	3.095	1.491	2.142	0.601	7.328	3.028×10^5	
2.00 TeV	2.000×10^6	3.137	2.186	3.132	0.870	9.325	3.752×10^5	
3.00 TeV	3.000×10^6	3.186	3.352	4.781	1.332	12.650	4.670×10^5	
4.00 TeV	4.000×10^6	3.221	4.537	6.452	1.803	16.013	5.371×10^5	
8.00 TeV	8.000×10^6	3.307	9.338	13.185	3.763	29.593	7.181×10^5	
10.0 TeV	1.000×10^7	3.335	11.766	16.575	4.773	36.450	7.789×10^5	
14.0 TeV	1.400×10^7	3.378	16.613	23.331	6.854	50.176	8.720×10^5	
20.0 TeV	2.000×10^7	3.425	23.944	33.521	10.051	70.941	9.721×10^5	
30.0 TeV	3.000×10^7	3.479	36.151	50.475	15.600	105.705	1.087×10^6	
40.0 TeV	4.000×10^7	3.517	48.424	67.484	21.296	140.722	1.169×10^6	
80.0 TeV	8.000×10^7	3.613	97.657	135.575	45.199	282.045	1.365×10^6	
100. TeV	1.000×10^8	3.645	122.347	169.661	57.590	353.242	1.429×10^6	