

Table 325: Muons in Water (ice) (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	0.918	75.0	0.09116	3.4773	0.2586	2.8190	3.5873	0.00
T	p [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm ²]		
				[MeV cm ² /g]					
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	2.119				2.119	4.934×10^1		
200. MeV	2.868×10^2	2.030				2.030	7.838×10^1		
300. MeV	3.917×10^2	1.996			0.000	1.996	1.282×10^2		
317. MeV	4.096×10^2	1.996			0.000	1.996	<i>Minimum ionization</i>		
400. MeV	4.945×10^2	2.002			0.000	2.003	1.783×10^2		
800. MeV	8.995×10^2	2.079	0.000		0.000	2.080	3.743×10^2		
1.00 GeV	1.101×10^3	2.114	0.000		0.000	2.115	4.697×10^2		
1.40 GeV	1.502×10^3	2.170	0.000		0.001	2.172	6.562×10^2		
2.00 GeV	2.103×10^3	2.233	0.001	0.000	0.001	2.235	9.284×10^2		
3.00 GeV	3.104×10^3	2.303	0.001	0.001	0.001	2.307	1.368×10^3		
4.00 GeV	4.104×10^3	2.353	0.001	0.001	0.002	2.357	1.797×10^3		
8.00 GeV	8.105×10^3	2.465	0.004	0.003	0.004	2.476	3.447×10^3		
10.0 GeV	1.011×10^4	2.499	0.005	0.005	0.005	2.514	4.249×10^3		
14.0 GeV	1.411×10^4	2.549	0.007	0.008	0.007	2.571	5.821×10^3		
20.0 GeV	2.011×10^4	2.599	0.011	0.013	0.009	2.633	8.126×10^3		
30.0 GeV	3.011×10^4	2.653	0.019	0.023	0.013	2.708	1.187×10^4		
40.0 GeV	4.011×10^4	2.689	0.027	0.034	0.018	2.767	1.552×10^4		
80.0 GeV	8.011×10^4	2.773	0.060	0.081	0.034	2.949	2.950×10^4		
100. GeV	1.001×10^5	2.799	0.078	0.107	0.042	3.027	3.619×10^4		
140. GeV	1.401×10^5	2.838	0.116	0.161	0.059	3.173	4.909×10^4		
200. GeV	2.001×10^5	2.879	0.174	0.246	0.084	3.383	6.740×10^4		
300. GeV	3.001×10^5	2.925	0.275	0.391	0.125	3.716	9.559×10^4		
400. GeV	4.001×10^5	2.957	0.379	0.542	0.167	4.046	1.214×10^5		
800. GeV	8.001×10^5	3.037	0.814	1.171	0.337	5.359	2.070×10^5		
1.00 TeV	1.000×10^6	3.063	1.038	1.496	0.423	6.020	2.422×10^5		
1.03 TeV	1.035×10^6	3.067	1.077	1.551	0.439	6.134	<i>Muon critical energy</i>		
1.40 TeV	1.400×10^6	3.102	1.491	2.142	0.601	7.335	3.023×10^5		
2.00 TeV	2.000×10^6	3.144	2.186	3.132	0.870	9.332	3.747×10^5		
3.00 TeV	3.000×10^6	3.193	3.352	4.781	1.332	12.658	4.663×10^5		
4.00 TeV	4.000×10^6	3.228	4.537	6.452	1.803	16.021	5.364×10^5		
8.00 TeV	8.000×10^6	3.314	9.338	13.185	3.763	29.601	7.173×10^5		
10.0 TeV	1.000×10^7	3.342	11.766	16.575	4.773	36.457	7.781×10^5		
14.0 TeV	1.400×10^7	3.385	16.613	23.331	6.854	50.183	8.712×10^5		
20.0 TeV	2.000×10^7	3.432	23.944	33.521	10.051	70.948	9.713×10^5		
30.0 TeV	3.000×10^7	3.486	36.151	50.475	15.600	105.713	1.086×10^6		
40.0 TeV	4.000×10^7	3.525	48.424	67.484	21.296	140.729	1.168×10^6		
80.0 TeV	8.000×10^7	3.620	97.657	135.575	45.199	282.053	1.365×10^6		
100. TeV	1.000×10^8	3.652	122.347	169.661	57.590	353.250	1.428×10^6		