Muons in water as calc from steam to check code

$\langle Z/A \rangle$	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
0.55509	1.000	71.6	0.44251	3.0000	0.2000	2.0000	3.5017	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	8.013				8.013	6.894×10^{-1}
14.0 MeV	5.616×10^1	6.249				6.249	1.261×10^0
20.0 MeV	6.802×10^1	4.879				4.879	2.360×10^0
30.0 MeV	8.509×10^1	3.784				3.784	4.720×10^0
40.0 MeV	1.003×10^2	3.231				3.231	7.598×10^0
80.0 MeV	1.527×10^2	2.425				2.425	2.234×10^1
100. MeV	1.764×10^2	2.280				2.280	3.087×10^1
140. MeV	2.218×10^2	2.131				2.131	4.910×10^1
200. MeV	2.868×10^2	2.047				2.047	7.793×10^1
300. MeV	3.917×10^2	2.018			0.000	2.018	1.273×10^2
308. MeV	4.000×10^2	2.018			0.000	2.018	*Minimum ionization*
400. MeV	4.945×10^2	2.027			0.000	2.027	1.768×10^2
800. MeV	8.995×10^2	2.105	0.000		0.000	2.105	3.704×10^2
1.00 GeV	1.101×10^3	2.139	0.000		0.000	2.140	4.646×10^2
1.40 GeV	1.502×10^3	2.194	0.000		0.001	2.195	6.491×10^2
2.00 GeV	2.103×10^3	2.254	0.001	0.000	0.001	2.256	9.185×10^2
3.00 GeV	3.104×10^3	2.321	0.001	0.001	0.001	2.324	1.355×10^3
4.00 GeV	4.104×10^3	2.367	0.001	0.001	0.002	2.371	1.781×10^3
8.00 GeV	8.105×10^3	2.472	0.004	0.003	0.004	2.483	3.424×10^3
10.0 GeV	1.011×10^4	2.504	0.005	0.005	0.005	2.519	4.224×10^3
14.0 GeV	1.411×10^4	2.552	0.007	0.008	0.007	2.574	5.794×10^3
20.0 GeV	2.011×10^4	2.600	0.011	0.013	0.009	2.634	8.097×10^3
30.0 GeV	3.011×10^4	2.653	0.019	0.023	0.013	2.709	1.184×10^4
40.0 GeV	4.011×10^4	2.690	0.027	0.034	0.018	2.768	1.549×10^4
80.0 GeV	8.011×10^4	2.774	0.060	0.081	0.034	2.950	2.946×10^4
100. GeV	1.001×10^5	2.800	0.078	0.107	0.042	3.028	3.616×10^4
140. GeV	1.401×10^5	2.838	0.116	0.161	0.059	3.174	4.906×10^4
200. GeV	2.001×10^5	2.879	0.174	0.246	0.084	3.383	6.736×10^4
300. GeV	3.001×10^5	2.925	0.275	0.391	0.125	3.717	9.554×10^4
400. GeV	4.001×10^5	2.958	0.379	0.542	0.167	4.046	1.213×10^5
800. GeV	8.001×10^5	3.037	0.814	1.171	0.337	5.359	2.069×10^5
1.00 TeV	1.000×10^6	3.063	1.038	1.496	0.423	6.021	2.421×10^5
1.03 TeV	1.035×10^6	3.067	1.077	1.551	0.439	6.135	*Muon critical energy*
1.40 TeV	1.400×10^6	3.103	1.491	2.142	0.601	7.336	3.022×10^5
2.00 TeV	2.000×10^6	3.145	2.186	3.132	0.870	9.333	3.746×10^5
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	5.363×10^5
8.00 TeV	8.000×10^6	3.315	9.338	13.185	3.763	29.601	7.172×10^5
10.0 TeV	1.000×10^7	3.343	11.766	16.575	4.773	36.458	7.780×10^5
14.0 TeV	1.400×10^7	3.386	16.613	23.331	6.854	50.184	8.711×10^5
20.0 TeV	2.000×10^7	3.433	23.944	33.521	10.051	70.948	9.712×10^5
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	140.730	1.168×10^6
80.0 TeV	8.000×10^7	3.621	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