Muons in Hydrogen BC liquid DEG calc to check code

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
1 (H)	1.00794(7)	6.000×10^{-2}	21.8	0.35807	3.0000	0.2000	2.0000	3.0093	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	16.508				16.508	3.316×10^{-1}
14.0 MeV	5.616×10^1	12.812				12.812	6.097×10^{-1}
20.0 MeV	6.802×10^1	9.956				9.956	1.147×10^0
30.0 MeV	8.509×10^1	7.684				7.684	2.307×10^0
40.0 MeV	1.003×10^2	6.539				6.539	3.727×10^0
80.0 MeV	1.527×10^2	4.870				4.870	1.105×10^1
100. MeV	1.764×10^2	4.563				4.563	1.530×10^1
140. MeV	2.218×10^2	4.236				4.236	2.444×10^1
200. MeV	2.868×10^2	4.041			0.000	4.041	3.900×10^1
300. MeV	3.917×10^2	3.955			0.000	3.955	6.409×10^1
348. MeV	4.413×10^2	3.950			0.000	3.950	*Minimum ionization*
400. MeV	4.945×10^2	3.954			0.000	3.954	8.940×10^1
800. MeV	8.995×10^2	4.069			0.000	4.070	1.892×10^2
1.00 GeV	1.101×10^3	4.125			0.001	4.126	2.380×10^2
1.40 GeV	1.502×10^3	4.218	0.000		0.001	4.219	3.338×10^2
2.00 GeV	2.103×10^3	4.320	0.000		0.001	4.322	4.742×10^2
3.00 GeV	3.104×10^3	4.437	0.000	0.000	0.002	4.439	7.023×10^2
4.00 GeV	4.104×10^3	4.518	0.001	0.000	0.002	4.522	9.254×10^2
8.00 GeV	8.105×10^3	4.706	0.001	0.001	0.005	4.713	1.790×10^3
10.0 GeV	1.011×10^4	4.763	0.002	0.002	0.006	4.773	2.211×10^3
14.0 GeV	1.411×10^4	4.848	0.003	0.003	0.008	4.862	3.041×10^3
20.0 GeV	2.011×10^4	4.935	0.005	0.006	0.011	4.956	4.263×10^3
30.0 GeV	3.011×10^4	5.030	0.008	0.010	0.015	5.064	6.257×10^3
40.0 GeV	4.011×10^4	5.095	0.012	0.015	0.020	5.142	8.217×10^3
80.0 GeV	8.011×10^4	5.244	0.028	0.038	0.038	5.349	1.583×10^4
100. GeV	1.001×10^5	5.291	0.037	0.050	0.047	5.426	1.954×10^4
140. GeV	1.401×10^5	5.361	0.055	0.076	0.066	5.558	2.682×10^4
200. GeV	2.001×10^5	5.433	0.085	0.118	0.093	5.729	3.745×10^4
300. GeV	3.001×10^5	5.516	0.137	0.191	0.139	5.983	5.452×10^4
400. GeV	4.001×10^5	5.574	0.191	0.268	0.185	6.218	7.092×10^4
800. GeV	8.001×10^5	5.716	0.423	0.592	0.373	7.104	1.310×10^5
1.00 TeV	1.000×10^6	5.762	0.544	0.761	0.468	7.536	1.583×10^5
1.40 TeV	1.400×10^6	5.833	0.791	1.101	0.663	8.389	2.086×10^5
2.00 TeV	2.000×10^6	5.908	1.175	1.627	0.961	9.671	2.752×10^5
3.00 TeV	3.000×10^6	5.995	1.827	2.504	1.474	11.800	3.687×10^5
3.10 TeV	3.095×10^6	6.002	1.890	2.589	1.523	12.004	*Muon critical energy*
4.00 TeV	4.000×10^6	6.058	2.496	3.399	1.996	13.949	4.465×10^5
8.00 TeV	8.000×10^6	6.212	5.240	7.012	4.180	22.644	6.695×10^5
10.0 TeV	1.000×10^7	6.262	6.642	8.837	5.308	27.049	7.502×10^5
14.0 TeV	1.400×10^7	6.339	9.452	12.466	7.642	35.899	8.782×10^5
20.0 TeV	2.000×10^7	6.422	13.734	17.952	11.236	49.345	1.020×10^6
30.0 TeV	3.000×10^7	6.519	20.884	27.062	17.498	71.963	1.187×10^6
40.0 TeV	4.000×10^7	6.588	28.113	36.210	23.940	94.850	1.308×10^6
80.0 TeV	8.000×10^7	6.759	57.248	72.833	51.135	187.975	1.602×10^6
100. TeV	1.000×10^8	6.815	71.920	91.170	65.290	235.196	1.697×10^6