Muons in curium (Cm)

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k=m_s$	x_0	x_1	$\overline{C}$	δ_0
96 (Cm)	[247.07035(3)]	13.510	939.0	0.20257	2.7579	0.2484	3.5160	6.3097	0.14

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	3.635				3.635	1.614×10^0
14.0 MeV	5.616×10^1	2.913				2.913	2.854×10^0
20.0 MeV	6.802×10^1	2.330				2.330	5.180×10^0
30.0 MeV	8.509×10^1	1.847				1.847	1.006×10^1
40.0 MeV	1.003×10^2	1.598				1.598	1.591×10^1
80.0 MeV	1.527×10^2	1.232				1.232	4.525×10^1
100. MeV	1.764×10^2	1.167				1.167	6.197×10^1
140. MeV	2.218×10^2	1.107				1.108	9.731×10^1
200. MeV	2.868×10^2	1.083				1.083	1.523×10^2
222. MeV	3.104×10^2	1.082	0.000			1.082	*Minimum ionization*
300. MeV	3.917×10^2	1.090	0.000		0.000	1.090	2.445×10^2
400. MeV	4.945×10^2	1.111	0.000		0.000	1.112	3.353×10^2
800. MeV	8.995×10^2	1.196	0.001		0.000	1.198	6.813×10^2
1.00 GeV	1.101×10^3	1.229	0.002		0.000	1.231	8.459×10^2
1.40 GeV	1.502×10^3	1.281	0.003		0.000	1.285	1.164×10^3
2.00 GeV	2.103×10^3	1.338	0.004	0.001	0.001	1.344	1.620×10^3
3.00 GeV	3.104×10^3	1.401	0.008	0.003	0.001	1.414	2.344×10^3
4.00 GeV	4.104×10^3	1.445	0.011	0.006	0.002	1.465	3.038×10^3
8.00 GeV	8.105×10^3	1.544	0.028	0.023	0.003	1.599	5.641×10^3
10.0 GeV	1.011×10^4	1.574	0.038	0.033	0.004	1.649	6.872×10^3
14.0 GeV	1.411×10^4	1.617	0.058	0.055	0.005	1.735	9.234×10^3
20.0 GeV	2.011×10^4	1.659	0.090	0.091	0.007	1.847	1.258×10^4
30.0 GeV	3.011×10^4	1.704	0.147	0.161	0.011	2.023	1.775×10^4
40.0 GeV	4.011×10^4	1.733	0.207	0.238	0.014	2.194	2.250×10^4
80.0 GeV	8.011×10^4	1.798	0.469	0.580	0.027	2.876	3.838×10^4
100. GeV	1.001×10^5	1.818	0.608	0.765	0.034	3.226	4.494×10^4
126. GeV	1.258×10^5	1.837	0.789	1.006	0.042	3.677	*Muon critical energy*
140. GeV	1.401×10^5	1.846	0.892	1.145	0.047	3.933	5.616×10^4
200. GeV	2.001×10^5	1.876	1.337	1.748	0.067	5.030	6.962×10^4
300. GeV	3.001×10^5	1.908	2.095	2.755	0.101	6.860	8.659×10^4
400. GeV	4.001×10^5	1.931	2.879	3.798	0.134	8.744	9.948×10^4
800. GeV	8.001×10^5	1.987	6.110	8.075	0.271	16.444	1.323×10^5
1.00 TeV	1.000×10^6	2.005	7.768	10.262	0.341	20.378	1.432×10^5
1.40 TeV	1.400×10^6	2.032	11.089	14.624	0.483	28.229	1.598×10^5
2.00 TeV	2.000×10^6	2.062	16.164	21.280	0.698	40.206	1.776×10^5
3.00 TeV	3.000×10^6	2.096	24.631	32.338	1.067	60.133	1.978×10^5
4.00 TeV	4.000×10^6	2.120	33.205	43.512	1.441	80.281	2.121×10^5
8.00 TeV	8.000×10^6	2.181	67.749	88.424	2.991	161.346	2.466×10^5
10.0 TeV	1.000×10^7	2.200	85.145	110.996	3.786	202.130	2.576×10^5
14.0 TeV	1.400×10^7	2.231	119.842	156.037	5.417	283.528	2.742×10^5
20.0 TeV	2.000×10^7	2.263	172.170	223.882	7.914	406.231	2.918×10^5
30.0 TeV	3.000×10^7	2.301	259.370	336.752	12.227	610.652	3.118×10^5
40.0 TeV	4.000×10^7	2.328	346.882	449.882	16.639	815.733	3.259×10^5
80.0 TeV	8.000×10^7	2.395	696.903	902.706	35.048	1637.054	3.598×10^5
100. TeV	1.000×10^8	2.417	872.020	1129.320	44.550	2048.309	3.707×10^5