

**Muons in curium (Cm)**

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	a	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
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 <sup>2</sup> /g]	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]
10.0 MeV	$4.704 \times 10^1$	3.635				3.635	$1.614 \times 10^0$
14.0 MeV	$5.616 \times 10^1$	2.913				2.913	$2.854 \times 10^0$
20.0 MeV	$6.802 \times 10^1$	2.330				2.330	$5.180 \times 10^0$
30.0 MeV	$8.509 \times 10^1$	1.847				1.847	$1.006 \times 10^1$
40.0 MeV	$1.003 \times 10^2$	1.598				1.598	$1.591 \times 10^1$
80.0 MeV	$1.527 \times 10^2$	1.232				1.232	$4.525 \times 10^1$
100. MeV	$1.764 \times 10^2$	1.167				1.167	$6.197 \times 10^1$
140. MeV	$2.218 \times 10^2$	1.107				1.108	$9.731 \times 10^1$
200. MeV	$2.868 \times 10^2$	1.083				1.083	$1.523 \times 10^2$
222. MeV	$3.104 \times 10^2$	1.082	0.000			1.082	<i>Minimum ionization</i>
300. MeV	$3.917 \times 10^2$	1.090	0.000		0.000	1.090	$2.445 \times 10^2$
400. MeV	$4.945 \times 10^2$	1.111	0.000		0.000	1.112	$3.353 \times 10^2$
800. MeV	$8.995 \times 10^2$	1.196	0.001		0.000	1.198	$6.813 \times 10^2$
1.00 GeV	$1.101 \times 10^3$	1.229	0.002		0.000	1.231	$8.459 \times 10^2$
1.40 GeV	$1.502 \times 10^3$	1.281	0.003		0.000	1.285	$1.164 \times 10^3$
2.00 GeV	$2.103 \times 10^3$	1.338	0.004	0.001	0.001	1.344	$1.620 \times 10^3$
3.00 GeV	$3.104 \times 10^3$	1.401	0.008	0.003	0.001	1.414	$2.344 \times 10^3$
4.00 GeV	$4.104 \times 10^3$	1.445	0.011	0.006	0.002	1.465	$3.038 \times 10^3$
8.00 GeV	$8.105 \times 10^3$	1.544	0.028	0.023	0.003	1.599	$5.641 \times 10^3$
10.0 GeV	$1.011 \times 10^4$	1.574	0.038	0.033	0.004	1.649	$6.872 \times 10^3$
14.0 GeV	$1.411 \times 10^4$	1.617	0.058	0.055	0.005	1.735	$9.234 \times 10^3$
20.0 GeV	$2.011 \times 10^4$	1.659	0.090	0.091	0.007	1.847	$1.258 \times 10^4$
30.0 GeV	$3.011 \times 10^4$	1.704	0.147	0.161	0.011	2.023	$1.775 \times 10^4$
40.0 GeV	$4.011 \times 10^4$	1.733	0.207	0.238	0.014	2.194	$2.250 \times 10^4$
80.0 GeV	$8.011 \times 10^4$	1.798	0.469	0.580	0.027	2.876	$3.838 \times 10^4$
100. GeV	$1.001 \times 10^5$	1.818	0.608	0.765	0.034	3.226	$4.494 \times 10^4$
126. GeV	$1.258 \times 10^5$	1.837	0.789	1.006	0.042	3.677	<i>Muon critical energy</i>
140. GeV	$1.401 \times 10^5$	1.846	0.892	1.145	0.047	3.933	$5.616 \times 10^4$
200. GeV	$2.001 \times 10^5$	1.876	1.337	1.748	0.067	5.030	$6.962 \times 10^4$
300. GeV	$3.001 \times 10^5$	1.908	2.095	2.755	0.101	6.860	$8.659 \times 10^4$
400. GeV	$4.001 \times 10^5$	1.931	2.879	3.798	0.134	8.744	$9.948 \times 10^4$
800. GeV	$8.001 \times 10^5$	1.987	6.110	8.075	0.271	16.444	$1.323 \times 10^5$
1.00 TeV	$1.000 \times 10^6$	2.005	7.768	10.262	0.341	20.378	$1.432 \times 10^5$
1.40 TeV	$1.400 \times 10^6$	2.032	11.089	14.624	0.483	28.229	$1.598 \times 10^5$
2.00 TeV	$2.000 \times 10^6$	2.062	16.164	21.279	0.698	40.205	$1.776 \times 10^5$
3.00 TeV	$3.000 \times 10^6$	2.096	24.631	32.337	1.067	60.132	$1.978 \times 10^5$
4.00 TeV	$4.000 \times 10^6$	2.120	33.205	43.512	1.441	80.280	$2.121 \times 10^5$
8.00 TeV	$8.000 \times 10^6$	2.181	67.749	88.421	2.991	161.343	$2.466 \times 10^5$
10.0 TeV	$1.000 \times 10^7$	2.200	85.145	110.990	3.786	202.124	$2.576 \times 10^5$
14.0 TeV	$1.400 \times 10^7$	2.231	119.842	156.032	5.417	283.524	$2.743 \times 10^5$
20.0 TeV	$2.000 \times 10^7$	2.263	172.170	223.882	7.914	406.231	$2.918 \times 10^5$
30.0 TeV	$3.000 \times 10^7$	2.301	259.370	336.752	12.227	610.652	$3.118 \times 10^5$
40.0 TeV	$4.000 \times 10^7$	2.328	346.882	449.882	16.639	815.733	$3.259 \times 10^5$
80.0 TeV	$8.000 \times 10^7$	2.395	696.903	902.706	35.048	1637.054	$3.598 \times 10^5$
100. TeV	$1.000 \times 10^8$	2.417	872.020	1129.320	44.550	2048.309	$3.707 \times 10^5$