

### Muons in copernicium (Cn)

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	$a$	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
112 (Cn)	[285.17712(5)]	??	1156.0	0.28410	3.0000	0.6774	3.0000	6.6791	0.00

  

$T$	$p$ [MeV/c]	Ionization	Brems	Pair prod [MeV cm <sup>2</sup> /g]	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]
10.0 MeV	$4.704 \times 10^1$	3.462				3.462	$1.726 \times 10^0$
14.0 MeV	$5.616 \times 10^1$	2.799				2.799	$3.022 \times 10^0$
20.0 MeV	$6.802 \times 10^1$	2.254				2.254	$5.434 \times 10^0$
30.0 MeV	$8.509 \times 10^1$	1.799				1.799	$1.046 \times 10^1$
40.0 MeV	$1.003 \times 10^2$	1.562				1.562	$1.646 \times 10^1$
80.0 MeV	$1.527 \times 10^2$	1.215				1.215	$4.633 \times 10^1$
100. MeV	$1.764 \times 10^2$	1.154				1.154	$6.326 \times 10^1$
140. MeV	$2.218 \times 10^2$	1.100				1.100	$9.891 \times 10^1$
200. MeV	$2.868 \times 10^2$	1.080				1.080	$1.541 \times 10^2$
207. MeV	$2.943 \times 10^2$	1.080	0.000			1.080	<i>Minimum ionization</i>
300. MeV	$3.917 \times 10^2$	1.094	0.000		0.000	1.095	$2.463 \times 10^2$
400. MeV	$4.945 \times 10^2$	1.122	0.000		0.000	1.123	$3.365 \times 10^2$
800. MeV	$8.995 \times 10^2$	1.222	0.001		0.000	1.224	$6.767 \times 10^2$
1.00 GeV	$1.101 \times 10^3$	1.259	0.002		0.000	1.261	$8.375 \times 10^2$
1.40 GeV	$1.502 \times 10^3$	1.315	0.003		0.000	1.319	$1.147 \times 10^3$
2.00 GeV	$2.103 \times 10^3$	1.375	0.005	0.000	0.001	1.381	$1.591 \times 10^3$
3.00 GeV	$3.104 \times 10^3$	1.440	0.009	0.003	0.001	1.454	$2.295 \times 10^3$
4.00 GeV	$4.104 \times 10^3$	1.484	0.013	0.006	0.001	1.506	$2.971 \times 10^3$
8.00 GeV	$8.105 \times 10^3$	1.581	0.033	0.025	0.003	1.643	$5.504 \times 10^3$
10.0 GeV	$1.011 \times 10^4$	1.610	0.044	0.036	0.004	1.694	$6.702 \times 10^3$
14.0 GeV	$1.411 \times 10^4$	1.650	0.067	0.060	0.005	1.783	$9.002 \times 10^3$
20.0 GeV	$2.011 \times 10^4$	1.690	0.104	0.100	0.007	1.902	$1.226 \times 10^4$
30.0 GeV	$3.011 \times 10^4$	1.731	0.171	0.179	0.010	2.092	$1.727 \times 10^4$
40.0 GeV	$4.011 \times 10^4$	1.758	0.242	0.265	0.014	2.280	$2.185 \times 10^4$
80.0 GeV	$8.011 \times 10^4$	1.818	0.547	0.651	0.027	3.045	$3.699 \times 10^4$
100. GeV	$1.001 \times 10^5$	1.837	0.709	0.860	0.033	3.440	$4.316 \times 10^4$
113. GeV	$1.130 \times 10^5$	1.847	0.814	0.995	0.038	3.696	<i>Muon critical energy</i>
140. GeV	$1.401 \times 10^5$	1.864	1.040	1.289	0.047	4.242	$5.362 \times 10^4$
200. GeV	$2.001 \times 10^5$	1.893	1.558	1.971	0.066	5.491	$6.603 \times 10^4$
300. GeV	$3.001 \times 10^5$	1.926	2.442	3.108	0.099	7.577	$8.148 \times 10^4$
400. GeV	$4.001 \times 10^5$	1.949	3.355	4.288	0.132	9.726	$9.311 \times 10^4$
800. GeV	$8.001 \times 10^5$	2.005	7.116	9.127	0.268	18.518	$1.224 \times 10^5$
1.00 TeV	$1.000 \times 10^6$	2.023	9.046	11.602	0.336	23.011	$1.321 \times 10^5$
1.40 TeV	$1.400 \times 10^6$	2.051	12.911	16.536	0.476	31.977	$1.468 \times 10^5$
2.00 TeV	$2.000 \times 10^6$	2.081	18.816	24.067	0.689	45.654	$1.624 \times 10^5$
3.00 TeV	$3.000 \times 10^6$	2.116	28.664	36.578	1.052	68.413	$1.802 \times 10^5$
4.00 TeV	$4.000 \times 10^6$	2.140	38.636	49.224	1.421	91.424	$1.928 \times 10^5$
8.00 TeV	$8.000 \times 10^6$	2.201	78.802	100.039	2.949	183.994	$2.230 \times 10^5$
10.0 TeV	$1.000 \times 10^7$	2.221	99.027	125.577	3.733	230.561	$2.327 \times 10^5$
14.0 TeV	$1.400 \times 10^7$	2.252	139.365	176.547	5.341	323.507	$2.473 \times 10^5$
20.0 TeV	$2.000 \times 10^7$	2.285	200.194	253.328	7.804	463.613	$2.627 \times 10^5$
30.0 TeV	$3.000 \times 10^7$	2.323	301.557	381.041	12.055	696.979	$2.802 \times 10^5$
40.0 TeV	$4.000 \times 10^7$	2.350	403.275	509.046	16.404	931.078	$2.925 \times 10^5$
80.0 TeV	$8.000 \times 10^7$	2.418	810.106	1021.433	34.546	1868.505	$3.223 \times 10^5$
100. TeV	$1.000 \times 10^8$	2.440	1013.640	1277.860	43.910	2337.853	$3.318 \times 10^5$