

Muons in oganesson (Og)

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	a	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
118 (Og)	[294.21392(8)]	$1.200 \times 10^{-2}$	1242.0	-0.07035	3.0000	2.0204	-1.9972	13.8662	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	$4.704 \times 10^1$	3.451				3.451	$1.746 \times 10^0$
14.0 MeV	$5.616 \times 10^1$	2.801				2.801	$3.043 \times 10^0$
20.0 MeV	$6.802 \times 10^1$	2.262				2.262	$5.449 \times 10^0$
30.0 MeV	$8.509 \times 10^1$	1.810				1.810	$1.045 \times 10^1$
40.0 MeV	$1.003 \times 10^2$	1.574				1.574	$1.641 \times 10^1$
80.0 MeV	$1.527 \times 10^2$	1.226				1.227	$4.601 \times 10^1$
100. MeV	$1.764 \times 10^2$	1.166				1.166	$6.277 \times 10^1$
140. MeV	$2.218 \times 10^2$	1.112				1.112	$9.805 \times 10^1$
200. MeV	$2.868 \times 10^2$	1.092	0.000			1.093	$1.527 \times 10^2$
206. MeV	$2.933 \times 10^2$	1.092	0.000			1.093	<i>Minimum ionization</i>
300. MeV	$3.917 \times 10^2$	1.108	0.000		0.000	1.108	$2.437 \times 10^2$
400. MeV	$4.945 \times 10^2$	1.137	0.000		0.000	1.137	$3.328 \times 10^2$
800. MeV	$8.995 \times 10^2$	1.247	0.001		0.000	1.249	$6.676 \times 10^2$
1.00 GeV	$1.101 \times 10^3$	1.290	0.002		0.000	1.293	$8.249 \times 10^2$
1.40 GeV	$1.502 \times 10^3$	1.360	0.003		0.000	1.365	$1.126 \times 10^3$
2.00 GeV	$2.103 \times 10^3$	1.438	0.006		0.001	1.445	$1.552 \times 10^3$
3.00 GeV	$3.104 \times 10^3$	1.530	0.010	0.003	0.001	1.544	$2.220 \times 10^3$
4.00 GeV	$4.104 \times 10^3$	1.595	0.014	0.006	0.001	1.618	$2.852 \times 10^3$
8.00 GeV	$8.105 \times 10^3$	1.754	0.035	0.026	0.003	1.818	$5.172 \times 10^3$
10.0 GeV	$1.011 \times 10^4$	1.804	0.047	0.037	0.004	1.893	$6.249 \times 10^3$
14.0 GeV	$1.411 \times 10^4$	2.131	0.072	0.062	0.005	2.271	$8.068 \times 10^3$
20.0 GeV	$2.011 \times 10^4$	2.166	0.112	0.104	0.007	2.390	$1.064 \times 10^4$
30.0 GeV	$3.011 \times 10^4$	2.204	0.183	0.188	0.010	2.587	$1.466 \times 10^4$
40.0 GeV	$4.011 \times 10^4$	2.230	0.259	0.279	0.014	2.784	$1.839 \times 10^4$
80.0 GeV	$8.011 \times 10^4$	2.291	0.587	0.687	0.027	3.593	$3.101 \times 10^4$
100. GeV	$1.001 \times 10^5$	2.310	0.760	0.908	0.033	4.013	$3.628 \times 10^4$
131. GeV	$1.309 \times 10^5$	2.332	1.033	1.256	0.043	4.666	<i>Muon critical energy</i>
140. GeV	$1.401 \times 10^5$	2.338	1.116	1.363	0.046	4.865	$4.532 \times 10^4$
200. GeV	$2.001 \times 10^5$	2.367	1.672	2.085	0.066	6.192	$5.623 \times 10^4$
300. GeV	$3.001 \times 10^5$	2.400	2.619	3.290	0.099	8.411	$7.005 \times 10^4$
400. GeV	$4.001 \times 10^5$	2.424	3.598	4.541	0.132	10.697	$8.057 \times 10^4$
800. GeV	$8.001 \times 10^5$	2.481	7.630	9.668	0.267	20.049	$1.075 \times 10^5$
1.00 TeV	$1.000 \times 10^6$	2.500	9.699	12.292	0.335	24.829	$1.164 \times 10^5$
1.40 TeV	$1.400 \times 10^6$	2.529	13.841	17.520	0.475	34.367	$1.301 \times 10^5$
2.00 TeV	$2.000 \times 10^6$	2.559	20.170	25.501	0.687	48.919	$1.446 \times 10^5$
3.00 TeV	$3.000 \times 10^6$	2.594	30.725	38.761	1.049	73.131	$1.612 \times 10^5$
4.00 TeV	$4.000 \times 10^6$	2.619	41.411	52.163	1.417	97.613	$1.730 \times 10^5$
8.00 TeV	$8.000 \times 10^6$	2.682	84.451	106.018	2.941	196.094	$2.014 \times 10^5$
10.0 TeV	$1.000 \times 10^7$	2.702	106.121	133.084	3.722	245.632	$2.105 \times 10^5$
14.0 TeV	$1.400 \times 10^7$	2.733	149.343	187.104	5.325	344.508	$2.241 \times 10^5$
20.0 TeV	$2.000 \times 10^7$	2.767	214.518	268.482	7.780	493.550	$2.386 \times 10^5$
30.0 TeV	$3.000 \times 10^7$	2.806	323.123	403.834	12.018	741.784	$2.550 \times 10^5$
40.0 TeV	$4.000 \times 10^7$	2.834	432.104	539.497	16.353	990.790	$2.667 \times 10^5$
80.0 TeV	$8.000 \times 10^7$	2.903	867.980	1082.539	34.437	1987.861	$2.946 \times 10^5$
100. TeV	$1.000 \times 10^8$	2.926	1086.040	1354.310	43.770	2487.048	$3.036 \times 10^5$