Table 076: Muons in Osmium

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
76 (Os)	190.23 (3)	22.570	746.0	0.12751	2.9608	0.0891	3.5414	5.3083	0.10

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	3.946				3.946	1.468×10^0
14.0 MeV	5.616×10^1	3.144				3.144	2.614×10^0
20.0 MeV	6.802×10^1	2.502				2.502	4.775×10^0
30.0 MeV	8.509×10^1	1.975				1.975	9.331×10^0
40.0 MeV	1.003×10^2	1.704				1.704	1.481×10^1
80.0 MeV	1.527×10^2	1.306				1.306	4.242×10^1
100. MeV	1.764×10^2	1.236				1.236	5.820×10^1
140. MeV	2.218×10^2	1.168				1.168	9.164×10^1
200. MeV	2.868×10^2	1.136				1.136	1.439×10^2
243. MeV	3.325×10^2	1.132	0.000			1.132	*Minimum ionization*
300. MeV	3.917×10^2	1.137	0.000		0.000	1.137	2.321×10^2
400. MeV	4.945×10^2	1.155	0.000		0.000	1.155	3.194×10^2
800. MeV	8.995×10^2	1.233	0.001		0.000	1.235	6.539×10^2
1.00 GeV	1.101×10^3	1.265	0.001		0.000	1.267	8.137×10^2
1.40 GeV	1.502×10^3	1.315	0.002		0.001	1.318	1.123×10^3
2.00 GeV	2.103×10^3	1.369	0.004	0.001	0.001	1.374	1.568×10^3
3.00 GeV	3.104×10^3	1.430	0.007	0.003	0.001	1.441	2.278×10^3
4.00 GeV	4.104×10^3	1.472	0.010	0.006	0.002	1.490	2.960×10^3
8.00 GeV	8.105×10^3	1.568	0.024	0.021	0.003	1.616	5.528×10^3
10.0 GeV	1.011×10^4	1.596	0.031	0.030	0.004	1.662	6.747×10^3
14.0 GeV	1.411×10^4	1.638	0.048	0.049	0.005	1.741	9.097×10^3
20.0 GeV	2.011×10^4	1.679	0.074	0.080	0.007	1.842	1.245×10^4
30.0 GeV	3.011×10^4	1.723	0.122	0.141	0.011	1.998	1.765×10^4
40.0 GeV	4.011×10^4	1.752	0.172	0.208	0.014	2.148	2.248×10^4
80.0 GeV	8.011×10^4	1.817	0.390	0.503	0.028	2.739	3.893×10^4
100. GeV	1.001×10^5	1.837	0.505	0.662	0.035	3.039	4.586×10^4
140. GeV	1.401×10^5	1.866	0.741	0.989	0.048	3.645	5.787×10^4
146. GeV	1.463×10^5	1.869	0.778	1.041	0.050	3.740	*Muon critical energy*
200. GeV	2.001×10^5	1.895	1.110	1.507	0.069	4.582	7.253×10^4
300. GeV	3.001×10^5	1.929	1.740	2.372	0.103	6.145	9.132×10^4
400. GeV	4.001×10^5	1.952	2.392	3.268	0.138	7.751	1.058×10^5
800. GeV	8.001×10^5	2.009	5.079	6.942	0.278	14.309	1.432×10^5
1.00 TeV	1.000×10^6	2.028	6.458	8.821	0.349	17.657	1.558×10^5
1.40 TeV	1.400×10^6	2.056	9.222	12.568	0.494	24.342	1.750×10^5
2.00 TeV	2.000×10^6	2.087	13.447	18.285	0.715	34.535	1.956×10^5
3.00 TeV	3.000×10^6	2.122	20.498	27.785	1.093	51.499	2.192×10^5
4.00 TeV	4.000×10^6	2.147	27.640	37.384	1.476	68.649	2.359×10^5
8.00 TeV	8.000×10^6	2.209	56.422	75.967	3.065	137.665	2.763×10^5
10.0 TeV	1.000×10^7	2.229	70.920	95.359	3.881	172.391	2.892×10^5
14.0 TeV	1.400×10^7	2.260	99.837	134.054	5.554	241.708	3.087×10^5
20.0 TeV	2.000×10^7	2.294	143.456	192.342	8.118	346.212	3.293×10^5
30.0 TeV	3.000×10^7	2.333	216.072	289.314	12.545	520.265	3.528×10^5
40.0 TeV	4.000×10^7	2.361	288.936	386.509	17.074	694.881	3.693×10^5
80.0 TeV	8.000×10^7	2.429	580.787	775.554	35.974	1394.746	4.091×10^5
100. TeV	1.000×10^8	2.452	726.940	970.250	45.730	1745.374	4.219×10^5