

Muons in seaborgium (Sg)

Z	A [g/mol]	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
106 (Sg)	[269.12863(5)]	??	1074.0	0.27308	3.0000	0.6309	3.0000	6.5365	0.00

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	3.525				3.525	1.683×10^0
14.0 MeV	5.616×10^1	2.840				2.840	2.958×10^0
20.0 MeV	6.802×10^1	2.281				2.281	5.338×10^0
30.0 MeV	8.509×10^1	1.817				1.817	1.031×10^1
40.0 MeV	1.003×10^2	1.576				1.576	1.625×10^1
80.0 MeV	1.527×10^2	1.223				1.223	4.590×10^1
100. MeV	1.764×10^2	1.162				1.162	6.272×10^1
140. MeV	2.218×10^2	1.106				1.106	9.816×10^1
200. MeV	2.868×10^2	1.085				1.085	1.531×10^2
210. MeV	2.974×10^2	1.085	0.000			1.085	<i>Minimum ionization</i>
300. MeV	3.917×10^2	1.099	0.000		0.000	1.099	2.449×10^2
400. MeV	4.945×10^2	1.126	0.000		0.000	1.127	3.347×10^2
800. MeV	8.995×10^2	1.223	0.001		0.000	1.225	6.742×10^2
1.00 GeV	1.101×10^3	1.259	0.002		0.000	1.261	8.351×10^2
1.40 GeV	1.502×10^3	1.314	0.003		0.000	1.318	1.145×10^3
2.00 GeV	2.103×10^3	1.372	0.005	0.000	0.001	1.379	1.590×10^3
3.00 GeV	3.104×10^3	1.436	0.009	0.003	0.001	1.450	2.296×10^3
4.00 GeV	4.104×10^3	1.480	0.013	0.007	0.001	1.501	2.973×10^3
8.00 GeV	8.105×10^3	1.575	0.032	0.025	0.003	1.636	5.515×10^3
10.0 GeV	1.011×10^4	1.603	0.043	0.036	0.004	1.687	6.718×10^3
14.0 GeV	1.411×10^4	1.643	0.065	0.060	0.005	1.775	9.029×10^3
20.0 GeV	2.011×10^4	1.682	0.102	0.099	0.007	1.892	1.230×10^4
30.0 GeV	3.011×10^4	1.723	0.167	0.177	0.011	2.079	1.734×10^4
40.0 GeV	4.011×10^4	1.750	0.236	0.263	0.014	2.265	2.195×10^4
80.0 GeV	8.011×10^4	1.810	0.534	0.644	0.027	3.017	3.721×10^4
100. GeV	1.001×10^5	1.829	0.692	0.850	0.034	3.406	4.344×10^4
114. GeV	1.143×10^5	1.840	0.805	0.997	0.038	3.681	<i>Muon critical energy</i>
140. GeV	1.401×10^5	1.856	1.015	1.273	0.047	4.194	5.402×10^4
200. GeV	2.001×10^5	1.885	1.521	1.946	0.067	5.421	6.658×10^4
300. GeV	3.001×10^5	1.917	2.384	3.068	0.100	7.471	8.224×10^4
400. GeV	4.001×10^5	1.940	3.275	4.231	0.133	9.582	9.403×10^4
800. GeV	8.001×10^5	1.996	6.948	9.001	0.270	18.217	1.238×10^5
1.00 TeV	1.000×10^6	2.015	8.833	11.441	0.339	22.630	1.337×10^5
1.40 TeV	1.400×10^6	2.042	12.606	16.306	0.480	31.437	1.486×10^5
2.00 TeV	2.000×10^6	2.072	18.373	23.730	0.694	44.871	1.645×10^5
3.00 TeV	3.000×10^6	2.106	27.992	36.064	1.060	67.225	1.826×10^5
4.00 TeV	4.000×10^6	2.131	37.732	48.529	1.432	89.826	1.954×10^5
8.00 TeV	8.000×10^6	2.192	76.965	98.626	2.973	180.757	2.262×10^5
10.0 TeV	1.000×10^7	2.211	96.721	123.804	3.763	226.502	2.360×10^5
14.0 TeV	1.400×10^7	2.242	136.124	174.045	5.384	317.798	2.509×10^5
20.0 TeV	2.000×10^7	2.275	195.546	249.726	7.866	455.415	2.666×10^5
30.0 TeV	3.000×10^7	2.313	294.566	375.625	12.152	684.657	2.844×10^5
40.0 TeV	4.000×10^7	2.340	393.933	501.812	16.537	914.625	2.969×10^5
80.0 TeV	8.000×10^7	2.407	791.367	1006.902	34.829	1835.507	3.272×10^5
100. TeV	1.000×10^8	2.429	990.200	1259.670	44.270	2296.572	3.369×10^5