

**Table 310: Muons in Seaborgium**

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	a	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
106 (Sg)	[271.133 (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 <sup>2</sup> /g]	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]		
10.0 MeV	$4.704 \times 10^1$	3.525				3.525	$1.683 \times 10^0$		
14.0 MeV	$5.616 \times 10^1$	2.840				2.840	$2.958 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	2.281				2.281	$5.338 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	1.817				1.817	$1.031 \times 10^1$		
40.0 MeV	$1.003 \times 10^2$	1.576				1.576	$1.625 \times 10^1$		
80.0 MeV	$1.527 \times 10^2$	1.223				1.223	$4.590 \times 10^1$		
100. MeV	$1.764 \times 10^2$	1.162				1.162	$6.272 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.106				1.106	$9.816 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.085				1.085	$1.531 \times 10^2$		
210. MeV	$2.974 \times 10^2$	1.085	0.000			1.085	<i>Minimum ionization</i>		
300. MeV	$3.917 \times 10^2$	1.099	0.000		0.000	1.099	$2.449 \times 10^2$		
400. MeV	$4.945 \times 10^2$	1.126	0.000		0.000	1.127	$3.347 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.223	0.001		0.000	1.225	$6.742 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.259	0.002		0.000	1.261	$8.351 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	1.314	0.003		0.000	1.318	$1.145 \times 10^3$		
2.00 GeV	$2.103 \times 10^3$	1.372	0.005	0.000	0.001	1.379	$1.590 \times 10^3$		
3.00 GeV	$3.104 \times 10^3$	1.436	0.009	0.003	0.001	1.450	$2.296 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	1.480	0.013	0.007	0.001	1.501	$2.973 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	1.575	0.032	0.025	0.003	1.636	$5.515 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	1.603	0.043	0.036	0.004	1.687	$6.718 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	1.643	0.065	0.060	0.005	1.775	$9.029 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	1.682	0.102	0.099	0.007	1.892	$1.230 \times 10^4$		
30.0 GeV	$3.011 \times 10^4$	1.723	0.167	0.177	0.011	2.079	$1.734 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	1.750	0.236	0.263	0.014	2.265	$2.195 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	1.810	0.534	0.644	0.027	3.017	$3.721 \times 10^4$		
100. GeV	$1.001 \times 10^5$	1.829	0.692	0.850	0.034	3.406	$4.344 \times 10^4$		
114. GeV	$1.143 \times 10^5$	1.840	0.805	0.997	0.038	3.681	<i>Muon critical energy</i>		
140. GeV	$1.401 \times 10^5$	1.856	1.015	1.273	0.047	4.194	$5.402 \times 10^4$		
200. GeV	$2.001 \times 10^5$	1.885	1.521	1.946	0.067	5.421	$6.658 \times 10^4$		
300. GeV	$3.001 \times 10^5$	1.917	2.384	3.068	0.100	7.471	$8.224 \times 10^4$		
400. GeV	$4.001 \times 10^5$	1.940	3.275	4.231	0.133	9.582	$9.403 \times 10^4$		
800. GeV	$8.001 \times 10^5$	1.996	6.948	9.001	0.270	18.217	$1.238 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.015	8.833	11.441	0.339	22.630	$1.337 \times 10^5$		
1.40 TeV	$1.400 \times 10^6$	2.042	12.606	16.306	0.480	31.437	$1.486 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.072	18.373	23.730	0.694	44.871	$1.645 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	2.106	27.992	36.064	1.060	67.225	$1.826 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	2.131	37.732	48.529	1.432	89.826	$1.954 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	2.192	76.965	98.626	2.973	180.757	$2.262 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	2.211	96.721	123.804	3.763	226.502	$2.360 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	2.242	136.124	174.045	5.384	317.798	$2.509 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	2.275	195.546	249.726	7.866	455.415	$2.666 \times 10^5$		
30.0 TeV	$3.000 \times 10^7$	2.313	294.566	375.625	12.152	684.657	$2.844 \times 10^5$		
40.0 TeV	$4.000 \times 10^7$	2.340	393.933	501.812	16.537	914.625	$2.969 \times 10^5$		
80.0 TeV	$8.000 \times 10^7$	2.407	791.367	1006.902	34.829	1835.507	$3.272 \times 10^5$		
100. TeV	$1.000 \times 10^8$	2.429	990.200	1259.670	44.270	2296.572	$3.369 \times 10^5$		