

**Table 315: Muons in Roentgenium**

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	a	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
111 (Rg)	[272.1536]	??	1143.0	0.27936	3.0000	0.6577	3.0000	6.6187	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	$4.704 \times 10^1$	3.608				3.608	$1.654 \times 10^0$		
14.0 MeV	$5.616 \times 10^1$	2.915				2.915	$2.898 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	2.347				2.347	$5.214 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	1.872				1.872	$1.004 \times 10^1$		
40.0 MeV	$1.003 \times 10^2$	1.626				1.626	$1.581 \times 10^1$		
80.0 MeV	$1.527 \times 10^2$	1.264				1.264	$4.451 \times 10^1$		
100. MeV	$1.764 \times 10^2$	1.201				1.201	$6.079 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.144				1.144	$9.506 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.123	0.000			1.123	$1.482 \times 10^2$		
207. MeV	$2.943 \times 10^2$	1.123	0.000			1.123	<i>Minimum ionization</i>		
300. MeV	$3.917 \times 10^2$	1.138	0.000		0.000	1.138	$2.368 \times 10^2$		
400. MeV	$4.945 \times 10^2$	1.167	0.000		0.000	1.168	$3.236 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.270	0.001		0.000	1.272	$6.509 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.307	0.002		0.000	1.310	$8.058 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	1.366	0.003		0.000	1.370	$1.104 \times 10^3$		
2.00 GeV	$2.103 \times 10^3$	1.427	0.005	0.000	0.001	1.434	$1.532 \times 10^3$		
3.00 GeV	$3.104 \times 10^3$	1.494	0.009	0.003	0.001	1.508	$2.210 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	1.540	0.014	0.007	0.001	1.562	$2.861 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	1.640	0.034	0.026	0.003	1.704	$5.303 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	1.670	0.045	0.037	0.004	1.757	$6.459 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	1.711	0.069	0.062	0.005	1.848	$8.677 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	1.752	0.108	0.103	0.007	1.971	$1.182 \times 10^4$		
30.0 GeV	$3.011 \times 10^4$	1.795	0.177	0.184	0.010	2.168	$1.665 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	1.823	0.250	0.274	0.014	2.362	$2.107 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	1.886	0.564	0.672	0.027	3.151	$3.569 \times 10^4$		
100. GeV	$1.001 \times 10^5$	1.905	0.731	0.887	0.034	3.559	$4.166 \times 10^4$		
113. GeV	$1.136 \times 10^5$	1.916	0.845	1.034	0.038	3.834	<i>Muon critical energy</i>		
140. GeV	$1.401 \times 10^5$	1.934	1.073	1.330	0.047	4.386	$5.177 \times 10^4$		
200. GeV	$2.001 \times 10^5$	1.964	1.608	2.034	0.067	5.674	$6.378 \times 10^4$		
300. GeV	$3.001 \times 10^5$	1.998	2.520	3.208	0.100	7.827	$7.873 \times 10^4$		
400. GeV	$4.001 \times 10^5$	2.022	3.461	4.426	0.133	10.043	$8.999 \times 10^4$		
800. GeV	$8.001 \times 10^5$	2.080	7.342	9.418	0.269	19.111	$1.184 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.099	9.333	11.973	0.338	23.744	$1.278 \times 10^5$		
1.40 TeV	$1.400 \times 10^6$	2.128	13.319	17.064	0.478	32.992	$1.420 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.159	19.411	24.835	0.692	47.099	$1.571 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	2.195	29.571	37.745	1.057	70.570	$1.744 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	2.220	39.857	50.793	1.428	94.301	$1.866 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	2.284	81.292	103.230	2.963	189.771	$2.159 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	2.304	102.156	129.585	3.750	237.798	$2.253 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	2.336	143.769	182.174	5.366	333.647	$2.394 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	2.370	206.520	261.392	7.840	478.125	$2.544 \times 10^5$		
30.0 TeV	$3.000 \times 10^7$	2.410	311.086	393.174	12.112	718.784	$2.713 \times 10^5$		
40.0 TeV	$4.000 \times 10^7$	2.438	416.017	525.259	16.482	960.200	$2.833 \times 10^5$		
80.0 TeV	$8.000 \times 10^7$	2.509	835.699	1053.956	34.711	1926.878	$3.121 \times 10^5$		
100. TeV	$1.000 \times 10^8$	2.532	1045.660	1318.540	44.120	2410.854	$3.214 \times 10^5$		