

**Table 314: Muons in Darmstadtium**

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	a	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
110 (Ds)	[271.1461]	??	1129.0	0.27786	3.0000	0.6514	3.0000	6.5994	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	$4.704 \times 10^1$	3.603				3.603	$1.655 \times 10^0$		
14.0 MeV	$5.616 \times 10^1$	2.909				2.909	$2.900 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	2.341				2.341	$5.222 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	1.867				1.867	$1.006 \times 10^1$		
40.0 MeV	$1.003 \times 10^2$	1.621				1.621	$1.585 \times 10^1$		
80.0 MeV	$1.527 \times 10^2$	1.259				1.259	$4.465 \times 10^1$		
100. MeV	$1.764 \times 10^2$	1.197				1.197	$6.098 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.139				1.140	$9.537 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.119	0.000			1.119	$1.487 \times 10^2$		
207. MeV	$2.943 \times 10^2$	1.119	0.000			1.119	<i>Minimum ionization</i>		
300. MeV	$3.917 \times 10^2$	1.133	0.000		0.000	1.134	$2.376 \times 10^2$		
400. MeV	$4.945 \times 10^2$	1.162	0.000		0.000	1.163	$3.248 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.264	0.001		0.000	1.266	$6.534 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.302	0.002		0.000	1.304	$8.090 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	1.359	0.003		0.000	1.363	$1.109 \times 10^3$		
2.00 GeV	$2.103 \times 10^3$	1.420	0.005	0.000	0.001	1.427	$1.538 \times 10^3$		
3.00 GeV	$3.104 \times 10^3$	1.487	0.009	0.003	0.001	1.501	$2.220 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	1.532	0.014	0.007	0.001	1.554	$2.875 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	1.632	0.034	0.025	0.003	1.695	$5.329 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	1.661	0.045	0.037	0.004	1.747	$6.491 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	1.703	0.068	0.061	0.005	1.838	$8.721 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	1.743	0.106	0.102	0.007	1.960	$1.188 \times 10^4$		
30.0 GeV	$3.011 \times 10^4$	1.786	0.174	0.183	0.010	2.154	$1.674 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	1.814	0.246	0.271	0.014	2.346	$2.119 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	1.876	0.557	0.664	0.027	3.126	$3.592 \times 10^4$		
100. GeV	$1.001 \times 10^5$	1.896	0.721	0.877	0.034	3.529	$4.194 \times 10^4$		
114. GeV	$1.143 \times 10^5$	1.907	0.839	1.030	0.038	3.816	<i>Muon critical energy</i>		
140. GeV	$1.401 \times 10^5$	1.924	1.058	1.315	0.047	4.346	$5.214 \times 10^4$		
200. GeV	$2.001 \times 10^5$	1.954	1.586	2.011	0.067	5.619	$6.426 \times 10^4$		
300. GeV	$3.001 \times 10^5$	1.987	2.485	3.171	0.100	7.745	$7.937 \times 10^4$		
400. GeV	$4.001 \times 10^5$	2.011	3.413	4.374	0.133	9.934	$9.074 \times 10^4$		
800. GeV	$8.001 \times 10^5$	2.069	7.241	9.308	0.269	18.889	$1.195 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.088	9.204	11.832	0.338	23.465	$1.290 \times 10^5$		
1.40 TeV	$1.400 \times 10^6$	2.117	13.136	16.864	0.479	32.598	$1.434 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.148	19.144	24.544	0.692	46.530	$1.587 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	2.183	29.165	37.302	1.057	69.710	$1.761 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	2.209	39.311	50.195	1.428	93.146	$1.885 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	2.272	80.180	102.015	2.964	187.434	$2.182 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	2.293	100.759	128.060	3.752	234.866	$2.277 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	2.324	141.804	180.030	5.368	329.528	$2.420 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	2.358	203.700	258.314	7.842	472.217	$2.571 \times 10^5$		
30.0 TeV	$3.000 \times 10^7$	2.397	306.840	388.542	12.115	709.897	$2.743 \times 10^5$		
40.0 TeV	$4.000 \times 10^7$	2.426	410.341	519.070	16.486	948.325	$2.864 \times 10^5$		
80.0 TeV	$8.000 \times 10^7$	2.496	824.301	1041.546	34.719	1903.064	$3.156 \times 10^5$		
100. TeV	$1.000 \times 10^8$	2.519	1031.400	1303.020	44.130	2381.071	$3.250 \times 10^5$		