

**Table 078: Muons in Platinum**

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	a	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
78 (Pt)	195.084 (9)	21.450	790.0	0.11128	3.0417	0.1484	3.6212	5.4732	0.12
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	$4.704 \times 10^1$	3.896				3.896	$1.492 \times 10^0$		
14.0 MeV	$5.616 \times 10^1$	3.109				3.109	$2.651 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	2.477				2.477	$4.836 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	1.958				1.958	$9.435 \times 10^0$		
40.0 MeV	$1.003 \times 10^2$	1.690				1.690	$1.496 \times 10^1$		
80.0 MeV	$1.527 \times 10^2$	1.297				1.297	$4.278 \times 10^1$		
100. MeV	$1.764 \times 10^2$	1.228				1.228	$5.866 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.162				1.162	$9.229 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.132				1.132	$1.448 \times 10^2$		
237. MeV	$3.260 \times 10^2$	1.128	0.000			1.129	<i>Minimum ionization</i>		
300. MeV	$3.917 \times 10^2$	1.134	0.000		0.000	1.134	$2.332 \times 10^2$		
400. MeV	$4.945 \times 10^2$	1.153	0.000		0.000	1.153	$3.207 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.233	0.001		0.000	1.234	$6.555 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.265	0.001		0.000	1.267	$8.154 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	1.315	0.002		0.001	1.318	$1.125 \times 10^3$		
2.00 GeV	$2.103 \times 10^3$	1.370	0.004	0.001	0.001	1.376	$1.570 \times 10^3$		
3.00 GeV	$3.104 \times 10^3$	1.431	0.007	0.003	0.001	1.443	$2.278 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	1.474	0.010	0.006	0.002	1.492	$2.959 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	1.570	0.024	0.022	0.003	1.620	$5.523 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	1.599	0.032	0.031	0.004	1.666	$6.740 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	1.641	0.049	0.050	0.005	1.746	$9.083 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	1.683	0.076	0.082	0.007	1.849	$1.242 \times 10^4$		
30.0 GeV	$3.011 \times 10^4$	1.727	0.125	0.144	0.011	2.007	$1.761 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	1.756	0.177	0.212	0.014	2.160	$2.241 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	1.821	0.399	0.513	0.028	2.763	$3.874 \times 10^4$		
100. GeV	$1.001 \times 10^5$	1.841	0.517	0.675	0.035	3.070	$4.561 \times 10^4$		
140. GeV	$1.401 \times 10^5$	1.870	0.759	1.009	0.048	3.688	$5.748 \times 10^4$		
144. GeV	$1.438 \times 10^5$	1.872	0.782	1.041	0.049	3.746	<i>Muon critical energy</i>		
200. GeV	$2.001 \times 10^5$	1.900	1.138	1.538	0.069	4.646	$7.196 \times 10^4$		
300. GeV	$3.001 \times 10^5$	1.933	1.784	2.422	0.103	6.243	$9.047 \times 10^4$		
400. GeV	$4.001 \times 10^5$	1.957	2.451	3.337	0.137	7.884	$1.047 \times 10^5$		
800. GeV	$8.001 \times 10^5$	2.014	5.204	7.090	0.277	14.587	$1.414 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.033	6.618	9.009	0.348	18.009	$1.538 \times 10^5$		
1.40 TeV	$1.400 \times 10^6$	2.061	9.449	12.836	0.493	24.841	$1.726 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.091	13.779	18.675	0.713	35.261	$1.928 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	2.126	21.002	28.378	1.090	52.599	$2.159 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	2.152	28.319	38.183	1.473	70.128	$2.323 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	2.214	57.805	77.589	3.058	140.669	$2.717 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	2.234	72.658	97.395	3.872	176.161	$2.844 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	2.265	102.282	136.916	5.541	247.006	$3.035 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	2.299	146.966	196.448	8.098	353.813	$3.237 \times 10^5$		
30.0 TeV	$3.000 \times 10^7$	2.338	221.354	295.488	12.513	531.696	$3.466 \times 10^5$		
40.0 TeV	$4.000 \times 10^7$	2.365	295.996	394.757	17.031	710.151	$3.628 \times 10^5$		
80.0 TeV	$8.000 \times 10^7$	2.434	594.964	792.106	35.880	1425.386	$4.018 \times 10^5$		
100. TeV	$1.000 \times 10^8$	2.457	744.680	990.960	45.610	1783.709	$4.143 \times 10^5$		