

Table 045: Muons in Rhodium

Z	A [g/mol]	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
45 (Rh)	102.90550 (2)	12.410	449.0	0.19205	2.8633	0.0576	3.1069	4.8008	0.14
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	4.778				4.778	1.190×10^0		
14.0 MeV	5.616×10^1	3.775				3.775	2.141×10^0		
20.0 MeV	6.802×10^1	2.982				2.982	3.949×10^0		
30.0 MeV	8.509×10^1	2.338				2.338	7.787×10^0		
40.0 MeV	1.003×10^2	2.008				2.008	1.243×10^1		
80.0 MeV	1.527×10^2	1.527				1.527	3.598×10^1		
100. MeV	1.764×10^2	1.442				1.442	4.949×10^1		
140. MeV	2.218×10^2	1.358				1.358	7.820×10^1		
200. MeV	2.868×10^2	1.317				1.317	1.232×10^2		
252. MeV	3.421×10^2	1.310				1.310	<i>Minimum ionization</i>		
300. MeV	3.917×10^2	1.313	0.000		0.000	1.313	1.995×10^2		
400. MeV	4.945×10^2	1.330	0.000		0.000	1.331	2.751×10^2		
800. MeV	8.995×10^2	1.412	0.001		0.000	1.413	5.665×10^2		
1.00 GeV	1.101×10^3	1.445	0.001		0.000	1.447	7.063×10^2		
1.40 GeV	1.502×10^3	1.498	0.002	0.000	0.001	1.501	9.775×10^2		
2.00 GeV	2.103×10^3	1.555	0.003	0.001	0.001	1.560	1.369×10^3		
3.00 GeV	3.104×10^3	1.620	0.004	0.003	0.001	1.629	1.996×10^3		
4.00 GeV	4.104×10^3	1.664	0.007	0.005	0.002	1.678	2.600×10^3		
8.00 GeV	8.105×10^3	1.765	0.016	0.016	0.003	1.801	4.892×10^3		
10.0 GeV	1.011×10^4	1.795	0.021	0.022	0.004	1.843	5.989×10^3		
14.0 GeV	1.411×10^4	1.839	0.033	0.036	0.005	1.913	8.118×10^3		
20.0 GeV	2.011×10^4	1.882	0.051	0.059	0.008	1.999	1.118×10^4		
30.0 GeV	3.011×10^4	1.927	0.083	0.102	0.011	2.124	1.603×10^4		
40.0 GeV	4.011×10^4	1.958	0.117	0.149	0.015	2.239	2.062×10^4		
80.0 GeV	8.011×10^4	2.025	0.264	0.357	0.030	2.677	3.692×10^4		
100. GeV	1.001×10^5	2.046	0.342	0.469	0.037	2.896	4.410×10^4		
140. GeV	1.401×10^5	2.077	0.503	0.701	0.051	3.332	5.697×10^4		
200. GeV	2.001×10^5	2.109	0.754	1.067	0.072	4.003	7.338×10^4		
221. GeV	2.214×10^5	2.118	0.843	1.195	0.080	4.237	<i>Muon critical energy</i>		
300. GeV	3.001×10^5	2.145	1.182	1.679	0.109	5.116	9.544×10^4		
400. GeV	4.001×10^5	2.171	1.625	2.313	0.145	6.255	1.131×10^5		
800. GeV	8.001×10^5	2.234	3.456	4.915	0.293	10.898	1.610×10^5		
1.00 TeV	1.000×10^6	2.254	4.396	6.246	0.368	13.265	1.776×10^5		
1.40 TeV	1.400×10^6	2.285	6.282	8.902	0.521	17.992	2.034×10^5		
2.00 TeV	2.000×10^6	2.318	9.168	12.956	0.754	25.198	2.314×10^5		
3.00 TeV	3.000×10^6	2.356	13.986	19.693	1.153	37.191	2.639×10^5		
4.00 TeV	4.000×10^6	2.384	18.871	26.503	1.559	49.318	2.872×10^5		
8.00 TeV	8.000×10^6	2.452	38.567	53.879	3.240	98.139	3.436×10^5		
10.0 TeV	1.000×10^7	2.474	48.494	67.641	4.103	122.713	3.618×10^5		
14.0 TeV	1.400×10^7	2.508	68.295	95.100	5.875	171.780	3.892×10^5		
20.0 TeV	2.000×10^7	2.545	98.176	136.466	8.592	245.780	4.182×10^5		
30.0 TeV	3.000×10^7	2.587	147.920	205.292	13.288	369.088	4.512×10^5		
40.0 TeV	4.000×10^7	2.618	197.847	274.285	18.095	492.845	4.746×10^5		
80.0 TeV	8.000×10^7	2.693	397.871	550.454	38.165	989.185	5.307×10^5		
100. TeV	1.000×10^8	2.718	498.060	688.670	48.530	1237.979	5.488×10^5		