

Table 047: Muons in Silver

Z	A [g/mol]	ρ [g/cm ³]	I [eV]	a	$k = m_s$	x_0	x_1	\bar{C}	δ_0
47 (Ag)	107.8682 (2)	10.500	470.0	0.24585	2.6899	0.0657	3.1074	5.0630	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	4.721				4.721	1.206×10^0		
14.0 MeV	5.616×10^1	3.732				3.733	2.168×10^0		
20.0 MeV	6.802×10^1	2.950				2.950	3.996×10^0		
30.0 MeV	8.509×10^1	2.314				2.314	7.874×10^0		
40.0 MeV	1.003×10^2	1.988				1.988	1.257×10^1		
80.0 MeV	1.527×10^2	1.513				1.513	3.634×10^1		
100. MeV	1.764×10^2	1.428				1.428	4.998×10^1		
140. MeV	2.218×10^2	1.346				1.346	7.896×10^1		
200. MeV	2.868×10^2	1.305				1.306	1.244×10^2		
253. MeV	3.431×10^2	1.299				1.299	<i>Minimum ionization</i>		
300. MeV	3.917×10^2	1.303	0.000		0.000	1.303	2.012×10^2		
400. MeV	4.945×10^2	1.321	0.000		0.000	1.321	2.775×10^2		
800. MeV	8.995×10^2	1.404	0.001		0.000	1.405	5.707×10^2		
1.00 GeV	1.101×10^3	1.438	0.001		0.000	1.440	7.113×10^2		
1.40 GeV	1.502×10^3	1.492	0.002	0.000	0.001	1.495	9.837×10^2		
2.00 GeV	2.103×10^3	1.550	0.003	0.001	0.001	1.555	1.377×10^3		
3.00 GeV	3.104×10^3	1.616	0.005	0.003	0.001	1.625	2.005×10^3		
4.00 GeV	4.104×10^3	1.662	0.007	0.005	0.002	1.676	2.610×10^3		
8.00 GeV	8.105×10^3	1.765	0.017	0.016	0.003	1.802	4.903×10^3		
10.0 GeV	1.011×10^4	1.796	0.022	0.023	0.004	1.845	6.000×10^3		
14.0 GeV	1.411×10^4	1.840	0.034	0.037	0.005	1.917	8.125×10^3		
20.0 GeV	2.011×10^4	1.884	0.053	0.060	0.008	2.005	1.118×10^4		
30.0 GeV	3.011×10^4	1.930	0.086	0.105	0.011	2.134	1.601×10^4		
40.0 GeV	4.011×10^4	1.961	0.121	0.154	0.015	2.252	2.057×10^4		
80.0 GeV	8.011×10^4	2.029	0.274	0.370	0.029	2.703	3.675×10^4		
100. GeV	1.001×10^5	2.050	0.355	0.486	0.036	2.928	4.386×10^4		
140. GeV	1.401×10^5	2.081	0.521	0.725	0.051	3.379	5.657×10^4		
200. GeV	2.001×10^5	2.113	0.781	1.103	0.072	4.071	7.273×10^4		
215. GeV	2.149×10^5	2.119	0.846	1.196	0.078	4.239	<i>Muon critical energy</i>		
300. GeV	3.001×10^5	2.149	1.226	1.737	0.108	5.221	9.438×10^4		
400. GeV	4.001×10^5	2.175	1.685	2.393	0.144	6.398	1.117×10^5		
800. GeV	8.001×10^5	2.237	3.582	5.084	0.292	11.195	1.583×10^5		
1.00 TeV	1.000×10^6	2.257	4.557	6.460	0.367	13.642	1.745×10^5		
1.40 TeV	1.400×10^6	2.288	6.511	9.207	0.519	18.527	1.996×10^5		
2.00 TeV	2.000×10^6	2.321	9.501	13.399	0.751	25.974	2.268×10^5		
3.00 TeV	3.000×10^6	2.359	14.493	20.366	1.149	38.369	2.583×10^5		
4.00 TeV	4.000×10^6	2.387	19.553	27.407	1.553	50.901	2.809×10^5		
8.00 TeV	8.000×10^6	2.454	39.957	55.715	3.227	101.354	3.355×10^5		
10.0 TeV	1.000×10^7	2.477	50.241	69.945	4.086	126.750	3.531×10^5		
14.0 TeV	1.400×10^7	2.511	70.753	98.337	5.851	177.453	3.796×10^5		
20.0 TeV	2.000×10^7	2.547	101.706	141.108	8.556	253.918	4.078×10^5		
30.0 TeV	3.000×10^7	2.589	153.235	212.274	13.231	381.330	4.397×10^5		
40.0 TeV	4.000×10^7	2.620	204.952	283.611	18.017	509.201	4.623×10^5		
80.0 TeV	8.000×10^7	2.695	412.144	569.156	37.999	1021.995	5.166×10^5		
100. TeV	1.000×10^8	2.720	515.920	712.060	48.320	1279.021	5.341×10^5		