Table 046: Muons in Palladium

Z	A [g/mol]	ρ [g/cm^3]	I [eV]	a	$k = m_s$	x_0	x_1	$\overline{C}$	δ_0
46 (Pd)	106.42 (1)	12.020	470.0	0.24178	2.7239	0.0563	3.0555	4.9358	0.14

T	p [MeV/c]	Ionization	Brems	Pair prod	Photonucl	Total	CSDA range [g/cm^2]
		[MeV cm^2/g]					
10.0 MeV	4.704×10^1	4.682				4.682	1.216×10^0
14.0 MeV	5.616×10^1	3.702				3.702	2.186×10^0
20.0 MeV	6.802×10^1	2.926				2.926	4.029×10^0
30.0 MeV	8.509×10^1	2.295				2.295	7.940×10^0
40.0 MeV	1.003×10^2	1.972				1.972	1.267×10^1
80.0 MeV	1.527×10^2	1.500				1.501	3.664×10^1
100. MeV	1.764×10^2	1.417				1.417	5.039×10^1
140. MeV	2.218×10^2	1.335				1.335	7.961×10^1
200. MeV	2.868×10^2	1.295				1.295	1.254×10^2
253. MeV	3.431×10^2	1.289				1.289	*Minimum ionization*
300. MeV	3.917×10^2	1.292	0.000		0.000	1.292	2.029×10^2
400. MeV	4.945×10^2	1.309	0.000		0.000	1.310	2.798×10^2
800. MeV	8.995×10^2	1.392	0.001		0.000	1.393	5.756×10^2
1.00 GeV	1.101×10^3	1.425	0.001		0.000	1.427	7.174×10^2
1.40 GeV	1.502×10^3	1.478	0.002	0.000	0.001	1.481	9.924×10^2
2.00 GeV	2.103×10^3	1.535	0.003	0.001	0.001	1.540	1.389×10^3
3.00 GeV	3.104×10^3	1.600	0.005	0.003	0.001	1.609	2.023×10^3
4.00 GeV	4.104×10^3	1.645	0.007	0.005	0.002	1.658	2.635×10^3
8.00 GeV	8.105×10^3	1.746	0.016	0.016	0.003	1.782	4.953×10^3
10.0 GeV	1.011×10^4	1.776	0.022	0.022	0.004	1.824	6.062×10^3
14.0 GeV	1.411×10^4	1.819	0.033	0.036	0.005	1.894	8.212×10^3
20.0 GeV	2.011×10^4	1.862	0.051	0.059	0.008	1.981	1.131×10^4
30.0 GeV	3.011×10^4	1.908	0.084	0.103	0.011	2.106	1.620×10^4
40.0 GeV	4.011×10^4	1.938	0.118	0.150	0.015	2.222	2.082×10^4
80.0 GeV	8.011×10^4	2.005	0.267	0.360	0.029	2.662	3.724×10^4
100. GeV	1.001×10^5	2.025	0.345	0.473	0.037	2.881	4.446×10^4
140. GeV	1.401×10^5	2.056	0.507	0.706	0.051	3.321	5.738×10^4
200. GeV	2.001×10^5	2.087	0.760	1.075	0.072	3.995	7.384×10^4
218. GeV	2.178×10^5	2.095	0.835	1.182	0.079	4.191	*Muon critical energy*
300. GeV	3.001×10^5	2.123	1.192	1.692	0.108	5.116	9.591×10^4
400. GeV	4.001×10^5	2.149	1.639	2.331	0.145	6.264	1.136×10^5
800. GeV	8.001×10^5	2.211	3.484	4.952	0.292	10.940	1.613×10^5
1.00 TeV	1.000×10^6	2.231	4.432	6.293	0.367	13.324	1.778×10^5
1.40 TeV	1.400×10^6	2.261	6.333	8.969	0.520	18.085	2.035×10^5
2.00 TeV	2.000×10^6	2.294	9.242	13.053	0.752	25.343	2.314×10^5
3.00 TeV	3.000×10^6	2.332	14.099	19.840	1.150	37.423	2.637×10^5
4.00 TeV	4.000×10^6	2.359	19.022	26.700	1.554	49.637	2.868×10^5
8.00 TeV	8.000×10^6	2.427	38.875	54.277	3.230	98.811	3.428×10^5
10.0 TeV	1.000×10^7	2.449	48.881	68.141	4.091	123.563	3.609×10^5
14.0 TeV	1.400×10^7	2.482	68.839	95.802	5.858	172.982	3.881×10^5
20.0 TeV	2.000×10^7	2.518	98.956	137.472	8.566	247.514	4.170×10^5
30.0 TeV	3.000×10^7	2.560	149.094	206.805	13.246	371.707	4.497×10^5
40.0 TeV	4.000×10^7	2.591	199.416	276.306	18.037	496.350	4.729×10^5
80.0 TeV	8.000×10^7	2.665	401.021	554.502	38.045	996.234	5.287×10^5
100. TeV	1.000×10^8	2.690	502.000	693.730	48.380	1246.801	5.466×10^5