

Muons in palladium (Pd)

| Z | A [g/mol] | ρ [g/cm ³] | I [eV] | a | $k = m_s$ | x_0 | x_1 | \bar{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 [MeV cm ² /g] | Photonucl | Total | CSDA range [g/cm ²] | | |
| 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 | <i>Minimum ionization</i> | | |
| 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 | <i>Muon critical energy</i> | | |
| 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 | | |