

Muons in plutonium (Pu)

| Z | A [g/mol] | ρ [g/cm ³] | I [eV] | a | $k = m_s$ | x_0 | x_1 | \bar{C} | δ_0 |
|----------|---------------------|-----------------------------|---------|---------------------------------------|-----------|----------|------------------------------------|-----------|------------|
| 94 (Pu) | [244.06420 (4)] | 19.840 | 921.0 | 0.20419 | 2.7679 | 0.1557 | 3.3981 | 5.8748 | 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 | 3.619 | | | | 3.619 | 1.619×10^0 | | |
| 14.0 MeV | 5.616×10^1 | 2.898 | | | | 2.898 | 2.865×10^0 | | |
| 20.0 MeV | 6.802×10^1 | 2.316 | | | | 2.316 | 5.204×10^0 | | |
| 30.0 MeV | 8.509×10^1 | 1.835 | | | | 1.835 | 1.011×10^1 | | |
| 40.0 MeV | 1.003×10^2 | 1.587 | | | | 1.587 | 1.601×10^1 | | |
| 80.0 MeV | 1.527×10^2 | 1.220 | | | | 1.221 | 4.559×10^1 | | |
| 100. MeV | 1.764×10^2 | 1.158 | | | | 1.158 | 6.246×10^1 | | |
| 140. MeV | 2.218×10^2 | 1.098 | | | | 1.099 | 9.808×10^1 | | |
| 200. MeV | 2.868×10^2 | 1.073 | | | | 1.073 | 1.535×10^2 | | |
| 227. MeV | 3.154×10^2 | 1.071 | 0.000 | | | 1.071 | <i>Minimum ionization</i> | | |
| 300. MeV | 3.917×10^2 | 1.078 | 0.000 | | 0.000 | 1.078 | 2.467×10^2 | | |
| 400. MeV | 4.945×10^2 | 1.098 | 0.000 | | 0.000 | 1.099 | 3.386×10^2 | | |
| 800. MeV | 8.995×10^2 | 1.180 | 0.001 | | 0.000 | 1.181 | 6.891×10^2 | | |
| 1.00 GeV | 1.101×10^3 | 1.211 | 0.002 | | 0.000 | 1.214 | 8.561×10^2 | | |
| 1.40 GeV | 1.502×10^3 | 1.262 | 0.003 | | 0.001 | 1.265 | 1.179×10^3 | | |
| 2.00 GeV | 2.103×10^3 | 1.316 | 0.004 | 0.001 | 0.001 | 1.322 | 1.642×10^3 | | |
| 3.00 GeV | 3.104×10^3 | 1.377 | 0.008 | 0.003 | 0.001 | 1.390 | 2.378×10^3 | | |
| 4.00 GeV | 4.104×10^3 | 1.420 | 0.011 | 0.006 | 0.002 | 1.439 | 3.085×10^3 | | |
| 8.00 GeV | 8.105×10^3 | 1.515 | 0.028 | 0.023 | 0.003 | 1.569 | 5.736×10^3 | | |
| 10.0 GeV | 1.011×10^4 | 1.544 | 0.037 | 0.033 | 0.004 | 1.618 | 6.990×10^3 | | |
| 14.0 GeV | 1.411×10^4 | 1.585 | 0.056 | 0.054 | 0.005 | 1.701 | 9.400×10^3 | | |
| 20.0 GeV | 2.011×10^4 | 1.626 | 0.087 | 0.089 | 0.007 | 1.810 | 1.282×10^4 | | |
| 30.0 GeV | 3.011×10^4 | 1.669 | 0.143 | 0.158 | 0.011 | 1.981 | 1.809×10^4 | | |
| 40.0 GeV | 4.011×10^4 | 1.698 | 0.202 | 0.233 | 0.014 | 2.147 | 2.294×10^4 | | |
| 80.0 GeV | 8.011×10^4 | 1.761 | 0.456 | 0.567 | 0.027 | 2.812 | 3.918×10^4 | | |
| 100. GeV | 1.001×10^5 | 1.780 | 0.591 | 0.747 | 0.034 | 3.153 | 4.589×10^4 | | |
| 126. GeV | 1.262×10^5 | 1.799 | 0.770 | 0.987 | 0.043 | 3.599 | <i>Muon critical energy</i> | | |
| 140. GeV | 1.401×10^5 | 1.807 | 0.867 | 1.118 | 0.047 | 3.841 | 5.737×10^4 | | |
| 200. GeV | 2.001×10^5 | 1.836 | 1.299 | 1.707 | 0.067 | 4.910 | 7.116×10^4 | | |
| 300. GeV | 3.001×10^5 | 1.868 | 2.036 | 2.688 | 0.101 | 6.695 | 8.855×10^4 | | |
| 400. GeV | 4.001×10^5 | 1.891 | 2.798 | 3.706 | 0.134 | 8.531 | 1.018×10^5 | | |
| 800. GeV | 8.001×10^5 | 1.946 | 5.938 | 7.879 | 0.272 | 16.037 | 1.354×10^5 | | |
| 1.00 TeV | 1.000×10^6 | 1.964 | 7.550 | 10.014 | 0.341 | 19.871 | 1.466×10^5 | | |
| 1.40 TeV | 1.400×10^6 | 1.991 | 10.778 | 14.270 | 0.483 | 27.524 | 1.636×10^5 | | |
| 2.00 TeV | 2.000×10^6 | 2.020 | 15.712 | 20.764 | 0.699 | 39.196 | 1.818×10^5 | | |
| 3.00 TeV | 3.000×10^6 | 2.054 | 23.943 | 31.553 | 1.068 | 58.619 | 2.026×10^5 | | |
| 4.00 TeV | 4.000×10^6 | 2.078 | 32.278 | 42.456 | 1.442 | 78.257 | 2.173×10^5 | | |
| 8.00 TeV | 8.000×10^6 | 2.138 | 65.860 | 86.276 | 2.994 | 157.270 | 2.526×10^5 | | |
| 10.0 TeV | 1.000×10^7 | 2.158 | 82.773 | 108.300 | 3.790 | 197.023 | 2.640×10^5 | | |
| 14.0 TeV | 1.400×10^7 | 2.188 | 116.505 | 152.247 | 5.423 | 276.365 | 2.810×10^5 | | |
| 20.0 TeV | 2.000×10^7 | 2.220 | 167.380 | 218.444 | 7.924 | 395.970 | 2.991×10^5 | | |
| 30.0 TeV | 3.000×10^7 | 2.257 | 252.157 | 328.571 | 12.242 | 595.230 | 3.195×10^5 | | |
| 40.0 TeV | 4.000×10^7 | 2.284 | 337.238 | 438.952 | 16.659 | 795.135 | 3.340×10^5 | | |
| 80.0 TeV | 8.000×10^7 | 2.351 | 677.542 | 880.778 | 35.088 | 1595.760 | 3.688×10^5 | | |
| 100. TeV | 1.000×10^8 | 2.372 | 847.800 | 1101.890 | 44.600 | 1996.665 | 3.800×10^5 | | |