

Muons in americium (Am)

| Z | A [g/mol] | ρ [g/cm ³] | I [eV] | a | $k = m_s$ | x_0 | x_1 | \bar{C} | δ_0 |
|----------|---------------------|-----------------------------|---------|---------------------------------------|-----------|----------|------------------------------------|-----------|------------|
| 95 (Am) | [243.06138 (2)] | 13.670 | 934.0 | 0.20308 | 2.7615 | 0.2274 | 3.5021 | 6.2813 | 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 | 3.660 | | | | 3.660 | 1.602×10^0 | | |
| 14.0 MeV | 5.616×10^1 | 2.933 | | | | 2.933 | 2.834×10^0 | | |
| 20.0 MeV | 6.802×10^1 | 2.345 | | | | 2.345 | 5.144×10^0 | | |
| 30.0 MeV | 8.509×10^1 | 1.860 | | | | 1.860 | 9.992×10^0 | | |
| 40.0 MeV | 1.003×10^2 | 1.609 | | | | 1.609 | 1.581×10^1 | | |
| 80.0 MeV | 1.527×10^2 | 1.239 | | | | 1.239 | 4.496×10^1 | | |
| 100. MeV | 1.764×10^2 | 1.174 | | | | 1.174 | 6.158×10^1 | | |
| 140. MeV | 2.218×10^2 | 1.115 | | | | 1.115 | 9.670×10^1 | | |
| 200. MeV | 2.868×10^2 | 1.090 | | | | 1.090 | 1.513×10^2 | | |
| 223. MeV | 3.114×10^2 | 1.089 | 0.000 | | | 1.089 | <i>Minimum ionization</i> | | |
| 300. MeV | 3.917×10^2 | 1.097 | 0.000 | | 0.000 | 1.097 | 2.429×10^2 | | |
| 400. MeV | 4.945×10^2 | 1.118 | 0.000 | | 0.000 | 1.119 | 3.332×10^2 | | |
| 800. MeV | 8.995×10^2 | 1.204 | 0.001 | | 0.000 | 1.205 | 6.770×10^2 | | |
| 1.00 GeV | 1.101×10^3 | 1.237 | 0.002 | | 0.000 | 1.239 | 8.406×10^2 | | |
| 1.40 GeV | 1.502×10^3 | 1.289 | 0.003 | | 0.001 | 1.293 | 1.156×10^3 | | |
| 2.00 GeV | 2.103×10^3 | 1.346 | 0.004 | 0.001 | 0.001 | 1.352 | 1.610×10^3 | | |
| 3.00 GeV | 3.104×10^3 | 1.410 | 0.008 | 0.003 | 0.001 | 1.422 | 2.329×10^3 | | |
| 4.00 GeV | 4.104×10^3 | 1.454 | 0.011 | 0.006 | 0.002 | 1.473 | 3.020×10^3 | | |
| 8.00 GeV | 8.105×10^3 | 1.553 | 0.028 | 0.023 | 0.003 | 1.608 | 5.607×10^3 | | |
| 10.0 GeV | 1.011×10^4 | 1.583 | 0.038 | 0.033 | 0.004 | 1.658 | 6.831×10^3 | | |
| 14.0 GeV | 1.411×10^4 | 1.626 | 0.057 | 0.055 | 0.005 | 1.744 | 9.182×10^3 | | |
| 20.0 GeV | 2.011×10^4 | 1.668 | 0.089 | 0.091 | 0.007 | 1.856 | 1.251×10^4 | | |
| 30.0 GeV | 3.011×10^4 | 1.713 | 0.146 | 0.161 | 0.011 | 2.032 | 1.766×10^4 | | |
| 40.0 GeV | 4.011×10^4 | 1.743 | 0.207 | 0.238 | 0.014 | 2.203 | 2.238×10^4 | | |
| 80.0 GeV | 8.011×10^4 | 1.808 | 0.468 | 0.579 | 0.027 | 2.884 | 3.821×10^4 | | |
| 100. GeV | 1.001×10^5 | 1.828 | 0.606 | 0.764 | 0.034 | 3.233 | 4.476×10^4 | | |
| 127. GeV | 1.266×10^5 | 1.848 | 0.792 | 1.013 | 0.043 | 3.698 | <i>Muon critical energy</i> | | |
| 140. GeV | 1.401×10^5 | 1.856 | 0.889 | 1.143 | 0.047 | 3.938 | 5.596×10^4 | | |
| 200. GeV | 2.001×10^5 | 1.886 | 1.332 | 1.745 | 0.067 | 5.032 | 6.941×10^4 | | |
| 300. GeV | 3.001×10^5 | 1.918 | 2.088 | 2.750 | 0.101 | 6.859 | 8.638×10^4 | | |
| 400. GeV | 4.001×10^5 | 1.941 | 2.869 | 3.791 | 0.134 | 8.737 | 9.927×10^4 | | |
| 800. GeV | 8.001×10^5 | 1.997 | 6.089 | 8.059 | 0.272 | 16.419 | 1.322×10^5 | | |
| 1.00 TeV | 1.000×10^6 | 2.015 | 7.741 | 10.243 | 0.341 | 20.343 | 1.431×10^5 | | |
| 1.40 TeV | 1.400×10^6 | 2.043 | 11.051 | 14.596 | 0.483 | 28.175 | 1.597×10^5 | | |
| 2.00 TeV | 2.000×10^6 | 2.073 | 16.109 | 21.239 | 0.699 | 40.122 | 1.775×10^5 | | |
| 3.00 TeV | 3.000×10^6 | 2.107 | 24.547 | 32.275 | 1.068 | 60.000 | 1.977×10^5 | | |
| 4.00 TeV | 4.000×10^6 | 2.132 | 33.092 | 43.428 | 1.443 | 80.097 | 2.121×10^5 | | |
| 8.00 TeV | 8.000×10^6 | 2.192 | 67.519 | 88.252 | 2.995 | 160.961 | 2.466×10^5 | | |
| 10.0 TeV | 1.000×10^7 | 2.212 | 84.857 | 110.780 | 3.792 | 201.643 | 2.577×10^5 | | |
| 14.0 TeV | 1.400×10^7 | 2.243 | 119.437 | 155.733 | 5.426 | 282.841 | 2.744×10^5 | | |
| 20.0 TeV | 2.000×10^7 | 2.276 | 171.590 | 223.446 | 7.928 | 405.242 | 2.920×10^5 | | |
| 30.0 TeV | 3.000×10^7 | 2.313 | 258.497 | 336.096 | 12.248 | 609.156 | 3.120×10^5 | | |
| 40.0 TeV | 4.000×10^7 | 2.341 | 345.716 | 449.004 | 16.667 | 813.730 | 3.262×10^5 | | |
| 80.0 TeV | 8.000×10^7 | 2.408 | 694.567 | 900.941 | 35.104 | 1633.022 | 3.602×10^5 | | |
| 100. TeV | 1.000×10^8 | 2.430 | 869.100 | 1127.110 | 44.620 | 2043.262 | 3.711×10^5 | | |