## Muons in silver (Ag)

| Z | $A$ [g/mol] | $\rho$ [g/cm$^3$] | $I$ [eV] | $a$ | $k = m_s$ | $x_0$ | $x_1$ | $\overline{C}$ | $\delta_0$ |
|---|---|---|---|---|---|---|---|---|---|
| 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 | Photonucl | Total | CSDA range [g/cm$^2$] |
|---|---|---|---|---|---|---|---|
| | | [MeV cm$^2$/g] | | | | | |
| 10.0 MeV | $4.704 \times 10^1$ | 4.721 | | | | 4.721 | $1.206 \times 10^0$ |
| 14.0 MeV | $5.616 \times 10^1$ | 3.732 | | | | 3.733 | $2.168 \times 10^0$ |
| 20.0 MeV | $6.802 \times 10^1$ | 2.950 | | | | 2.950 | $3.996 \times 10^0$ |
| 30.0 MeV | $8.509 \times 10^1$ | 2.314 | | | | 2.314 | $7.874 \times 10^0$ |
| 40.0 MeV | $1.003 \times 10^2$ | 1.988 | | | | 1.988 | $1.257 \times 10^1$ |
| 80.0 MeV | $1.527 \times 10^2$ | 1.513 | | | | 1.513 | $3.634 \times 10^1$ |
| 100. MeV | $1.764 \times 10^2$ | 1.428 | | | | 1.428 | $4.998 \times 10^1$ |
| 140. MeV | $2.218 \times 10^2$ | 1.346 | | | | 1.346 | $7.896 \times 10^1$ |
| 200. MeV | $2.868 \times 10^2$ | 1.305 | | | | 1.306 | $1.244 \times 10^2$ |
| 253. MeV | $3.431 \times 10^2$ | 1.299 | | | | 1.299 | *Minimum ionization* |
| 300. MeV | $3.917 \times 10^2$ | 1.303 | 0.000 | | 0.000 | 1.303 | $2.012 \times 10^2$ |
| 400. MeV | $4.945 \times 10^2$ | 1.321 | 0.000 | | 0.000 | 1.321 | $2.775 \times 10^2$ |
| 800. MeV | $8.995 \times 10^2$ | 1.404 | 0.001 | | 0.000 | 1.405 | $5.707 \times 10^2$ |
| 1.00 GeV | $1.101 \times 10^3$ | 1.438 | 0.001 | | 0.000 | 1.440 | $7.113 \times 10^2$ |
| 1.40 GeV | $1.502 \times 10^3$ | 1.492 | 0.002 | 0.000 | 0.001 | 1.495 | $9.837 \times 10^2$ |
| 2.00 GeV | $2.103 \times 10^3$ | 1.550 | 0.003 | 0.001 | 0.001 | 1.555 | $1.377 \times 10^3$ |
| 3.00 GeV | $3.104 \times 10^3$ | 1.616 | 0.005 | 0.003 | 0.001 | 1.625 | $2.005 \times 10^3$ |
| 4.00 GeV | $4.104 \times 10^3$ | 1.662 | 0.007 | 0.005 | 0.002 | 1.676 | $2.610 \times 10^3$ |
| 8.00 GeV | $8.105 \times 10^3$ | 1.765 | 0.017 | 0.016 | 0.003 | 1.802 | $4.903 \times 10^3$ |
| 10.0 GeV | $1.011 \times 10^4$ | 1.796 | 0.022 | 0.023 | 0.004 | 1.845 | $6.000 \times 10^3$ |
| 14.0 GeV | $1.411 \times 10^4$ | 1.840 | 0.034 | 0.037 | 0.005 | 1.917 | $8.125 \times 10^3$ |
| 20.0 GeV | $2.011 \times 10^4$ | 1.884 | 0.053 | 0.060 | 0.008 | 2.005 | $1.118 \times 10^4$ |
| 30.0 GeV | $3.011 \times 10^4$ | 1.930 | 0.086 | 0.105 | 0.011 | 2.134 | $1.601 \times 10^4$ |
| 40.0 GeV | $4.011 \times 10^4$ | 1.961 | 0.121 | 0.154 | 0.015 | 2.252 | $2.057 \times 10^4$ |
| 80.0 GeV | $8.011 \times 10^4$ | 2.029 | 0.274 | 0.370 | 0.029 | 2.703 | $3.675 \times 10^4$ |
| 100. GeV | $1.001 \times 10^5$ | 2.050 | 0.355 | 0.486 | 0.036 | 2.928 | $4.386 \times 10^4$ |
| 140. GeV | $1.401 \times 10^5$ | 2.081 | 0.521 | 0.725 | 0.051 | 3.379 | $5.657 \times 10^4$ |
| 200. GeV | $2.001 \times 10^5$ | 2.113 | 0.781 | 1.103 | 0.072 | 4.071 | $7.273 \times 10^4$ |
| 215. GeV | $2.149 \times 10^5$ | 2.119 | 0.846 | 1.196 | 0.078 | 4.239 | *Muon critical energy* |
| 300. GeV | $3.001 \times 10^5$ | 2.149 | 1.226 | 1.737 | 0.108 | 5.221 | $9.438 \times 10^4$ |
| 400. GeV | $4.001 \times 10^5$ | 2.175 | 1.685 | 2.393 | 0.144 | 6.398 | $1.117 \times 10^5$ |
| 800. GeV | $8.001 \times 10^5$ | 2.237 | 3.582 | 5.084 | 0.292 | 11.195 | $1.583 \times 10^5$ |
| 1.00 TeV | $1.000 \times 10^6$ | 2.257 | 4.557 | 6.460 | 0.367 | 13.642 | $1.745 \times 10^5$ |
| 1.40 TeV | $1.400 \times 10^6$ | 2.288 | 6.511 | 9.207 | 0.519 | 18.527 | $1.996 \times 10^5$ |
| 2.00 TeV | $2.000 \times 10^6$ | 2.321 | 9.501 | 13.399 | 0.751 | 25.974 | $2.268 \times 10^5$ |
| 3.00 TeV | $3.000 \times 10^6$ | 2.359 | 14.493 | 20.366 | 1.149 | 38.369 | $2.583 \times 10^5$ |
| 4.00 TeV | $4.000 \times 10^6$ | 2.387 | 19.553 | 27.407 | 1.553 | 50.901 | $2.809 \times 10^5$ |
| 8.00 TeV | $8.000 \times 10^6$ | 2.454 | 39.957 | 55.715 | 3.227 | 101.354 | $3.355 \times 10^5$ |
| 10.0 TeV | $1.000 \times 10^7$ | 2.477 | 50.241 | 69.945 | 4.086 | 126.750 | $3.531 \times 10^5$ |
| 14.0 TeV | $1.400 \times 10^7$ | 2.511 | 70.753 | 98.337 | 5.851 | 177.453 | $3.796 \times 10^5$ |
| 20.0 TeV | $2.000 \times 10^7$ | 2.547 | 101.706 | 141.108 | 8.556 | 253.918 | $4.078 \times 10^5$ |
| 30.0 TeV | $3.000 \times 10^7$ | 2.589 | 153.235 | 212.274 | 13.231 | 381.330 | $4.397 \times 10^5$ |
| 40.0 TeV | $4.000 \times 10^7$ | 2.620 | 204.952 | 283.611 | 18.017 | 509.201 | $4.623 \times 10^5$ |
| 80.0 TeV | $8.000 \times 10^7$ | 2.695 | 412.144 | 569.156 | 37.999 | 1021.995 | $5.166 \times 10^5$ |
| 100. TeV | $1.000 \times 10^8$ | 2.720 | 515.920 | 712.060 | 48.320 | 1279.021 | $5.341 \times 10^5$ |