

Muons in cadmium (Cd)

| Z | A [g/mol] | ρ [g/cm ³] | I [eV] | a | $k = m_s$ | x_0 | x_1 | \bar{C} | δ_0 |
|----------|---------------------|-----------------------------|---------|---------------------------------------|-----------|----------|------------------------------------|-----------|------------|
| 48 (Cd) | 112.414(4) | 8.650 | 469.0 | 0.24609 | 2.6772 | 0.1281 | 3.1667 | 5.2727 | 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 | 4.631 | | | | 4.631 | 1.229×10^0 | | |
| 14.0 MeV | 5.616×10^1 | 3.662 | | | | 3.662 | 2.210×10^0 | | |
| 20.0 MeV | 6.802×10^1 | 2.894 | | | | 2.894 | 4.073×10^0 | | |
| 30.0 MeV | 8.509×10^1 | 2.271 | | | | 2.271 | 8.025×10^0 | | |
| 40.0 MeV | 1.003×10^2 | 1.953 | | | | 1.953 | 1.280×10^1 | | |
| 80.0 MeV | 1.527×10^2 | 1.485 | | | | 1.485 | 3.701×10^1 | | |
| 100. MeV | 1.764×10^2 | 1.402 | | | | 1.403 | 5.090×10^1 | | |
| 140. MeV | 2.218×10^2 | 1.322 | | | | 1.322 | 8.041×10^1 | | |
| 200. MeV | 2.868×10^2 | 1.283 | | | | 1.283 | 1.266×10^2 | | |
| 247. MeV | 3.366×10^2 | 1.277 | | | | 1.277 | <i>Minimum ionization</i> | | |
| 300. MeV | 3.917×10^2 | 1.281 | 0.000 | | 0.000 | 1.281 | 2.048×10^2 | | |
| 400. MeV | 4.945×10^2 | 1.299 | 0.000 | | 0.000 | 1.299 | 2.824×10^2 | | |
| 800. MeV | 8.995×10^2 | 1.382 | 0.001 | | 0.000 | 1.383 | 5.805×10^2 | | |
| 1.00 GeV | 1.101×10^3 | 1.415 | 0.001 | | 0.000 | 1.417 | 7.233×10^2 | | |
| 1.40 GeV | 1.502×10^3 | 1.469 | 0.002 | 0.000 | 0.001 | 1.471 | 1.000×10^3 | | |
| 2.00 GeV | 2.103×10^3 | 1.527 | 0.003 | 0.001 | 0.001 | 1.532 | 1.399×10^3 | | |
| 3.00 GeV | 3.104×10^3 | 1.592 | 0.005 | 0.003 | 0.001 | 1.601 | 2.037×10^3 | | |
| 4.00 GeV | 4.104×10^3 | 1.637 | 0.007 | 0.005 | 0.002 | 1.651 | 2.651×10^3 | | |
| 8.00 GeV | 8.105×10^3 | 1.740 | 0.017 | 0.016 | 0.003 | 1.777 | 4.977×10^3 | | |
| 10.0 GeV | 1.011×10^4 | 1.771 | 0.022 | 0.023 | 0.004 | 1.820 | 6.089×10^3 | | |
| 14.0 GeV | 1.411×10^4 | 1.815 | 0.034 | 0.037 | 0.005 | 1.891 | 8.244×10^3 | | |
| 20.0 GeV | 2.011×10^4 | 1.858 | 0.052 | 0.060 | 0.008 | 1.979 | 1.134×10^4 | | |
| 30.0 GeV | 3.011×10^4 | 1.904 | 0.086 | 0.105 | 0.011 | 2.107 | 1.624×10^4 | | |
| 40.0 GeV | 4.011×10^4 | 1.935 | 0.121 | 0.154 | 0.015 | 2.226 | 2.085×10^4 | | |
| 80.0 GeV | 8.011×10^4 | 2.003 | 0.274 | 0.369 | 0.029 | 2.675 | 3.721×10^4 | | |
| 100. GeV | 1.001×10^5 | 2.023 | 0.354 | 0.485 | 0.036 | 2.900 | 4.439×10^4 | | |
| 140. GeV | 1.401×10^5 | 2.053 | 0.520 | 0.723 | 0.051 | 3.349 | 5.722×10^4 | | |
| 200. GeV | 2.001×10^5 | 2.084 | 0.780 | 1.101 | 0.072 | 4.039 | 7.352×10^4 | | |
| 213. GeV | 2.126×10^5 | 2.090 | 0.835 | 1.179 | 0.076 | 4.181 | <i>Muon critical energy</i> | | |
| 300. GeV | 3.001×10^5 | 2.120 | 1.223 | 1.733 | 0.108 | 5.186 | 9.532×10^4 | | |
| 400. GeV | 4.001×10^5 | 2.145 | 1.682 | 2.388 | 0.144 | 6.360 | 1.127×10^5 | | |
| 800. GeV | 8.001×10^5 | 2.206 | 3.576 | 5.073 | 0.291 | 11.147 | 1.596×10^5 | | |
| 1.00 TeV | 1.000×10^6 | 2.226 | 4.549 | 6.447 | 0.365 | 13.589 | 1.759×10^5 | | |
| 1.40 TeV | 1.400×10^6 | 2.256 | 6.500 | 9.188 | 0.518 | 18.463 | 2.010×10^5 | | |
| 2.00 TeV | 2.000×10^6 | 2.289 | 9.484 | 13.371 | 0.749 | 25.894 | 2.283×10^5 | | |
| 3.00 TeV | 3.000×10^6 | 2.326 | 14.468 | 20.323 | 1.145 | 38.263 | 2.599×10^5 | | |
| 4.00 TeV | 4.000×10^6 | 2.353 | 19.519 | 27.349 | 1.547 | 50.769 | 2.825×10^5 | | |
| 8.00 TeV | 8.000×10^6 | 2.419 | 39.885 | 55.594 | 3.215 | 101.115 | 3.373×10^5 | | |
| 10.0 TeV | 1.000×10^7 | 2.441 | 50.149 | 69.793 | 4.072 | 126.456 | 3.549×10^5 | | |
| 14.0 TeV | 1.400×10^7 | 2.474 | 70.622 | 98.123 | 5.830 | 177.052 | 3.816×10^5 | | |
| 20.0 TeV | 2.000×10^7 | 2.510 | 101.516 | 140.802 | 8.524 | 253.354 | 4.097×10^5 | | |
| 30.0 TeV | 3.000×10^7 | 2.552 | 152.947 | 211.811 | 13.180 | 380.491 | 4.417×10^5 | | |
| 40.0 TeV | 4.000×10^7 | 2.581 | 204.566 | 282.990 | 17.947 | 508.085 | 4.644×10^5 | | |
| 80.0 TeV | 8.000×10^7 | 2.655 | 411.362 | 567.908 | 37.850 | 1019.777 | 5.189×10^5 | | |
| 100. TeV | 1.000×10^8 | 2.679 | 514.940 | 710.500 | 48.130 | 1276.251 | 5.364×10^5 | | |