

Muons in calcium fluoride (CaF₂)

| | $\langle Z/A \rangle$ | ρ [g/cm ³] | I [eV] | a | $k = m_s$ | x_0 | x_1 | \bar{C} | δ_0 |
|----------|-----------------------|-----------------------------|----------|---------------------------------------|-----------|---------|------------------------------------|-----------|------------|
| | 0.49670 | 3.180 | 166.0 | 0.06942 | 3.5263 | 0.0676 | 3.1683 | 4.0653 | 0.00 |
| 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 | 6.395 | | | | 6.395 | 8.715×10^{-1} | | |
| 14.0 MeV | 5.616×10^1 | 5.009 | | | | 5.009 | 1.586×10^0 | | |
| 20.0 MeV | 6.802×10^1 | 3.928 | | | | 3.928 | 2.953×10^0 | | |
| 30.0 MeV | 8.509×10^1 | 3.060 | | | | 3.060 | 5.877×10^0 | | |
| 40.0 MeV | 1.003×10^2 | 2.620 | | | | 2.620 | 9.431×10^0 | | |
| 80.0 MeV | 1.527×10^2 | 1.975 | | | | 1.975 | 2.756×10^1 | | |
| 100. MeV | 1.764×10^2 | 1.857 | | | | 1.857 | 3.803×10^1 | | |
| 140. MeV | 2.218×10^2 | 1.738 | | | | 1.738 | 6.039×10^1 | | |
| 200. MeV | 2.868×10^2 | 1.673 | | | | 1.674 | 9.570×10^1 | | |
| 288. MeV | 3.788×10^2 | 1.655 | | | 0.000 | 1.655 | <i>Minimum ionization</i> | | |
| 300. MeV | 3.917×10^2 | 1.655 | | | 0.000 | 1.656 | 1.559×10^2 | | |
| 400. MeV | 4.945×10^2 | 1.667 | | | 0.000 | 1.668 | 2.162×10^2 | | |
| 800. MeV | 8.995×10^2 | 1.747 | 0.000 | | 0.000 | 1.748 | 4.504×10^2 | | |
| 1.00 GeV | 1.101×10^3 | 1.781 | 0.000 | | 0.000 | 1.782 | 5.637×10^2 | | |
| 1.40 GeV | 1.502×10^3 | 1.835 | 0.001 | 0.000 | 0.001 | 1.837 | 7.847×10^2 | | |
| 2.00 GeV | 2.103×10^3 | 1.895 | 0.001 | 0.001 | 0.001 | 1.897 | 1.106×10^3 | | |
| 3.00 GeV | 3.104×10^3 | 1.962 | 0.002 | 0.001 | 0.001 | 1.966 | 1.623×10^3 | | |
| 4.00 GeV | 4.104×10^3 | 2.008 | 0.003 | 0.002 | 0.002 | 2.015 | 2.125×10^3 | | |
| 8.00 GeV | 8.105×10^3 | 2.114 | 0.007 | 0.006 | 0.004 | 2.131 | 4.049×10^3 | | |
| 10.0 GeV | 1.011×10^4 | 2.146 | 0.009 | 0.009 | 0.005 | 2.168 | 4.979×10^3 | | |
| 14.0 GeV | 1.411×10^4 | 2.192 | 0.013 | 0.014 | 0.006 | 2.226 | 6.799×10^3 | | |
| 20.0 GeV | 2.011×10^4 | 2.238 | 0.020 | 0.024 | 0.009 | 2.291 | 9.454×10^3 | | |
| 30.0 GeV | 3.011×10^4 | 2.287 | 0.034 | 0.041 | 0.013 | 2.375 | 1.374×10^4 | | |
| 40.0 GeV | 4.011×10^4 | 2.321 | 0.047 | 0.060 | 0.017 | 2.446 | 1.788×10^4 | | |
| 80.0 GeV | 8.011×10^4 | 2.396 | 0.107 | 0.145 | 0.033 | 2.682 | 3.348×10^4 | | |
| 100. GeV | 1.001×10^5 | 2.420 | 0.139 | 0.191 | 0.040 | 2.791 | 4.079×10^4 | | |
| 140. GeV | 1.401×10^5 | 2.455 | 0.204 | 0.286 | 0.056 | 3.002 | 5.460×10^4 | | |
| 200. GeV | 2.001×10^5 | 2.491 | 0.307 | 0.437 | 0.080 | 3.315 | 7.361×10^4 | | |
| 300. GeV | 3.001×10^5 | 2.532 | 0.482 | 0.691 | 0.119 | 3.825 | 1.017×10^5 | | |
| 400. GeV | 4.001×10^5 | 2.562 | 0.664 | 0.955 | 0.159 | 4.339 | 1.262×10^5 | | |
| 565. GeV | 5.653×10^5 | 2.597 | 0.971 | 1.400 | 0.225 | 5.194 | <i>Muon critical energy</i> | | |
| 800. GeV | 8.001×10^5 | 2.633 | 1.417 | 2.042 | 0.322 | 6.414 | 2.016×10^5 | | |
| 1.00 TeV | 1.000×10^6 | 2.656 | 1.805 | 2.602 | 0.404 | 7.467 | 2.304×10^5 | | |
| 1.40 TeV | 1.400×10^6 | 2.691 | 2.585 | 3.716 | 0.573 | 9.565 | 2.777×10^5 | | |
| 2.00 TeV | 2.000×10^6 | 2.729 | 3.780 | 5.420 | 0.829 | 12.759 | 3.318×10^5 | | |
| 3.00 TeV | 3.000×10^6 | 2.772 | 5.779 | 8.254 | 1.270 | 18.076 | 3.973×10^5 | | |
| 4.00 TeV | 4.000×10^6 | 2.804 | 7.809 | 11.123 | 1.718 | 23.454 | 4.458×10^5 | | |
| 8.00 TeV | 8.000×10^6 | 2.881 | 16.010 | 22.666 | 3.580 | 45.137 | 5.666×10^5 | | |
| 10.0 TeV | 1.000×10^7 | 2.906 | 20.150 | 28.474 | 4.538 | 56.068 | 6.063×10^5 | | |
| 14.0 TeV | 1.400×10^7 | 2.945 | 28.413 | 40.055 | 6.509 | 77.922 | 6.665×10^5 | | |
| 20.0 TeV | 2.000×10^7 | 2.986 | 40.898 | 57.512 | 9.534 | 110.931 | 7.307×10^5 | | |
| 30.0 TeV | 3.000×10^7 | 3.034 | 61.665 | 86.559 | 14.777 | 166.036 | 8.039×10^5 | | |
| 40.0 TeV | 4.000×10^7 | 3.069 | 82.521 | 115.688 | 20.152 | 221.431 | 8.559×10^5 | | |
| 80.0 TeV | 8.000×10^7 | 3.155 | 166.132 | 232.299 | 42.665 | 444.251 | 9.810×10^5 | | |
| 100. TeV | 1.000×10^8 | 3.183 | 208.035 | 290.668 | 54.318 | 556.204 | 1.021×10^6 | | |