

Table 157: Muons in Ferric oxide (Fe_2O_3)

| | $\langle Z/A \rangle$ | ρ [g/cm ³] | I [eV] | a | $k = m_s$ | x_0 | x_1 | \bar{C} | δ_0 |
|----------|-----------------------|-----------------------------|----------|--------------------------|-----------|---------|------------------------------------|-----------|------------|
| | 0.47592 | 5.200 | 227.3 | 0.10478 | 3.1313 | -0.0074 | 3.2573 | 4.2245 | 0.00 |
| T | p [MeV/c] | Ionization | Brems | Pair prod | Photonucl | Total | CSDA range [g/cm ²] | | |
| | | | | [MeV cm ² /g] | | | | | |
| 10.0 MeV | 4.704×10^1 | 5.849 | | | | 5.849 | 9.565×10^{-1} | | |
| 14.0 MeV | 5.616×10^1 | 4.591 | | | | 4.591 | 1.736×10^0 | | |
| 20.0 MeV | 6.802×10^1 | 3.607 | | | | 3.607 | 3.227×10^0 | | |
| 30.0 MeV | 8.509×10^1 | 2.815 | | | | 2.815 | 6.408×10^0 | | |
| 40.0 MeV | 1.003×10^2 | 2.414 | | | | 2.414 | 1.027×10^1 | | |
| 80.0 MeV | 1.527×10^2 | 1.816 | | | | 1.816 | 2.997×10^1 | | |
| 100. MeV | 1.764×10^2 | 1.707 | | | | 1.707 | 4.135×10^1 | | |
| 140. MeV | 2.218×10^2 | 1.599 | | | | 1.599 | 6.568×10^1 | | |
| 200. MeV | 2.868×10^2 | 1.540 | | | | 1.540 | 1.041×10^2 | | |
| 277. MeV | 3.683×10^2 | 1.525 | | | 0.000 | 1.525 | <i>Minimum ionization</i> | | |
| 300. MeV | 3.917×10^2 | 1.526 | | | 0.000 | 1.526 | 1.695×10^2 | | |
| 400. MeV | 4.945×10^2 | 1.539 | 0.000 | | 0.000 | 1.539 | 2.348×10^2 | | |
| 800. MeV | 8.995×10^2 | 1.618 | 0.000 | | 0.000 | 1.619 | 4.881×10^2 | | |
| 1.00 GeV | 1.101×10^3 | 1.651 | 0.001 | | 0.000 | 1.652 | 6.104×10^2 | | |
| 1.40 GeV | 1.502×10^3 | 1.705 | 0.001 | 0.000 | 0.001 | 1.707 | 8.484×10^2 | | |
| 2.00 GeV | 2.103×10^3 | 1.764 | 0.001 | 0.001 | 0.001 | 1.767 | 1.193×10^3 | | |
| 3.00 GeV | 3.104×10^3 | 1.831 | 0.002 | 0.002 | 0.001 | 1.836 | 1.748×10^3 | | |
| 4.00 GeV | 4.104×10^3 | 1.877 | 0.003 | 0.003 | 0.002 | 1.885 | 2.285×10^3 | | |
| 8.00 GeV | 8.105×10^3 | 1.983 | 0.008 | 0.008 | 0.004 | 2.004 | 4.336×10^3 | | |
| 10.0 GeV | 1.011×10^4 | 2.015 | 0.011 | 0.012 | 0.004 | 2.042 | 5.324×10^3 | | |
| 14.0 GeV | 1.411×10^4 | 2.060 | 0.017 | 0.019 | 0.006 | 2.103 | 7.253×10^3 | | |
| 20.0 GeV | 2.011×10^4 | 2.106 | 0.027 | 0.031 | 0.008 | 2.173 | 1.006×10^4 | | |
| 30.0 GeV | 3.011×10^4 | 2.155 | 0.044 | 0.054 | 0.012 | 2.265 | 1.456×10^4 | | |
| 40.0 GeV | 4.011×10^4 | 2.188 | 0.061 | 0.079 | 0.016 | 2.345 | 1.890×10^4 | | |
| 80.0 GeV | 8.011×10^4 | 2.262 | 0.139 | 0.189 | 0.032 | 2.622 | 3.500×10^4 | | |
| 100. GeV | 1.001×10^5 | 2.284 | 0.180 | 0.249 | 0.039 | 2.753 | 4.245×10^4 | | |
| 140. GeV | 1.401×10^5 | 2.318 | 0.264 | 0.372 | 0.055 | 3.009 | 5.634×10^4 | | |
| 200. GeV | 2.001×10^5 | 2.353 | 0.397 | 0.567 | 0.078 | 3.395 | 7.510×10^4 | | |
| 300. GeV | 3.001×10^5 | 2.392 | 0.623 | 0.895 | 0.117 | 4.027 | 1.021×10^5 | | |
| 400. GeV | 4.001×10^5 | 2.420 | 0.858 | 1.235 | 0.156 | 4.669 | 1.252×10^5 | | |
| 429. GeV | 4.288×10^5 | 2.427 | 0.926 | 1.334 | 0.167 | 4.854 | <i>Muon critical energy</i> | | |
| 800. GeV | 8.001×10^5 | 2.488 | 1.829 | 2.634 | 0.315 | 7.267 | 1.933×10^5 | | |
| 1.00 TeV | 1.000×10^6 | 2.510 | 2.328 | 3.353 | 0.396 | 8.587 | 2.186×10^5 | | |
| 1.40 TeV | 1.400×10^6 | 2.544 | 3.332 | 4.785 | 0.561 | 11.222 | 2.592×10^5 | | |
| 2.00 TeV | 2.000×10^6 | 2.580 | 4.869 | 6.974 | 0.811 | 15.235 | 3.050×10^5 | | |
| 3.00 TeV | 3.000×10^6 | 2.622 | 7.438 | 10.613 | 1.242 | 21.916 | 3.594×10^5 | | |
| 4.00 TeV | 4.000×10^6 | 2.652 | 10.046 | 14.294 | 1.680 | 28.672 | 3.992×10^5 | | |
| 8.00 TeV | 8.000×10^6 | 2.726 | 20.573 | 29.102 | 3.498 | 55.900 | 4.973×10^5 | | |
| 10.0 TeV | 1.000×10^7 | 2.750 | 25.884 | 36.551 | 4.433 | 69.619 | 5.293×10^5 | | |
| 14.0 TeV | 1.400×10^7 | 2.787 | 36.479 | 51.407 | 6.356 | 97.030 | 5.778×10^5 | | |
| 20.0 TeV | 2.000×10^7 | 2.827 | 52.479 | 73.797 | 9.306 | 138.409 | 6.293×10^5 | | |
| 30.0 TeV | 3.000×10^7 | 2.873 | 79.115 | 111.050 | 14.416 | 207.454 | 6.879×10^5 | | |
| 40.0 TeV | 4.000×10^7 | 2.906 | 105.861 | 148.403 | 19.653 | 276.824 | 7.295×10^5 | | |
| 80.0 TeV | 8.000×10^7 | 2.989 | 213.054 | 297.929 | 41.568 | 555.540 | 8.295×10^5 | | |
| 100. TeV | 1.000×10^8 | 3.016 | 266.761 | 372.768 | 52.906 | 695.452 | 8.616×10^5 | | |