

Muons in magnesium tetraborate MgB_4O_7

| | $\langle Z/A \rangle$ | ρ [g/cm ³] | I [eV] | a | $k = m_s$ | x_0 | x_1 | \bar{C} | δ_0 |
|----------|-----------------------|-----------------------------|----------|-----------|-----------|---------|------------------------------------|-----------|------------|
| | 0.49014 | 2.530 | 108.3 | 0.09703 | 3.4893 | 0.1147 | 2.7635 | 3.4328 | 0.00 |
| T | p [MeV/c] | Ionization | Brems | Pair prod | Photonucl | Total | CSDA range [g/cm ²] | | |
| 10.0 MeV | 4.704×10^1 | 6.699 | | | | 6.699 | 8.280×10^{-1} | | |
| 14.0 MeV | 5.616×10^1 | 5.235 | | | | 5.235 | 1.511×10^0 | | |
| 20.0 MeV | 6.802×10^1 | 4.096 | | | | 4.096 | 2.821×10^0 | | |
| 30.0 MeV | 8.509×10^1 | 3.183 | | | | 3.183 | 5.629×10^0 | | |
| 40.0 MeV | 1.003×10^2 | 2.721 | | | | 2.722 | 9.049×10^0 | | |
| 80.0 MeV | 1.527×10^2 | 2.045 | | | | 2.045 | 2.653×10^1 | | |
| 100. MeV | 1.764×10^2 | 1.918 | | | | 1.918 | 3.665×10^1 | | |
| 140. MeV | 2.218×10^2 | 1.790 | | | | 1.790 | 5.834×10^1 | | |
| 200. MeV | 2.868×10^2 | 1.718 | | | | 1.718 | 9.268×10^1 | | |
| 300. MeV | 3.917×10^2 | 1.692 | | | 0.000 | 1.693 | 1.515×10^2 | | |
| 307. MeV | 3.990×10^2 | 1.692 | | | 0.000 | 1.693 | <i>Minimum ionization</i> | | |
| 400. MeV | 4.945×10^2 | 1.700 | | | 0.000 | 1.701 | 2.105×10^2 | | |
| 800. MeV | 8.995×10^2 | 1.770 | 0.000 | | 0.000 | 1.771 | 4.410×10^2 | | |
| 1.00 GeV | 1.101×10^3 | 1.801 | 0.000 | | 0.000 | 1.802 | 5.530×10^2 | | |
| 1.40 GeV | 1.502×10^3 | 1.851 | 0.000 | 0.000 | 0.001 | 1.852 | 7.718×10^2 | | |
| 2.00 GeV | 2.103×10^3 | 1.906 | 0.001 | 0.000 | 0.001 | 1.908 | 1.091×10^3 | | |
| 3.00 GeV | 3.104×10^3 | 1.968 | 0.001 | 0.001 | 0.001 | 1.972 | 1.606×10^3 | | |
| 4.00 GeV | 4.104×10^3 | 2.012 | 0.002 | 0.001 | 0.002 | 2.016 | 2.107×10^3 | | |
| 8.00 GeV | 8.105×10^3 | 2.111 | 0.004 | 0.004 | 0.004 | 2.122 | 4.035×10^3 | | |
| 10.0 GeV | 1.011×10^4 | 2.141 | 0.005 | 0.005 | 0.005 | 2.155 | 4.969×10^3 | | |
| 14.0 GeV | 1.411×10^4 | 2.184 | 0.008 | 0.008 | 0.006 | 2.207 | 6.802×10^3 | | |
| 20.0 GeV | 2.011×10^4 | 2.228 | 0.012 | 0.013 | 0.009 | 2.263 | 9.486×10^3 | | |
| 30.0 GeV | 3.011×10^4 | 2.275 | 0.019 | 0.024 | 0.013 | 2.332 | 1.384×10^4 | | |
| 40.0 GeV | 4.011×10^4 | 2.308 | 0.027 | 0.035 | 0.017 | 2.387 | 1.807×10^4 | | |
| 80.0 GeV | 8.011×10^4 | 2.382 | 0.062 | 0.084 | 0.034 | 2.561 | 3.422×10^4 | | |
| 100. GeV | 1.001×10^5 | 2.405 | 0.081 | 0.110 | 0.042 | 2.638 | 4.192×10^4 | | |
| 140. GeV | 1.401×10^5 | 2.439 | 0.119 | 0.165 | 0.058 | 2.782 | 5.668×10^4 | | |
| 200. GeV | 2.001×10^5 | 2.475 | 0.179 | 0.253 | 0.083 | 2.989 | 7.748×10^4 | | |
| 300. GeV | 3.001×10^5 | 2.516 | 0.282 | 0.402 | 0.124 | 3.323 | 1.092×10^5 | | |
| 400. GeV | 4.001×10^5 | 2.544 | 0.388 | 0.556 | 0.165 | 3.654 | 1.379×10^5 | | |
| 800. GeV | 8.001×10^5 | 2.615 | 0.832 | 1.200 | 0.333 | 4.980 | 2.313×10^5 | | |
| 881. GeV | 8.807×10^5 | 2.624 | 0.924 | 1.333 | 0.367 | 5.249 | <i>Muon critical energy</i> | | |
| 1.00 TeV | 1.000×10^6 | 2.637 | 1.061 | 1.532 | 0.419 | 5.650 | 2.690×10^5 | | |
| 1.40 TeV | 1.400×10^6 | 2.672 | 1.523 | 2.193 | 0.594 | 6.981 | 3.326×10^5 | | |
| 2.00 TeV | 2.000×10^6 | 2.709 | 2.231 | 3.205 | 0.859 | 9.005 | 4.080×10^5 | | |
| 3.00 TeV | 3.000×10^6 | 2.752 | 3.418 | 4.890 | 1.317 | 12.377 | 5.024×10^5 | | |
| 4.00 TeV | 4.000×10^6 | 2.783 | 4.624 | 6.597 | 1.782 | 15.787 | 5.738×10^5 | | |
| 8.00 TeV | 8.000×10^6 | 2.859 | 9.505 | 13.474 | 3.718 | 29.557 | 7.560×10^5 | | |
| 10.0 TeV | 1.000×10^7 | 2.884 | 11.972 | 16.937 | 4.715 | 36.508 | 8.168×10^5 | | |
| 14.0 TeV | 1.400×10^7 | 2.922 | 16.895 | 23.837 | 6.768 | 50.423 | 9.097×10^5 | | |
| 20.0 TeV | 2.000×10^7 | 2.964 | 24.338 | 34.243 | 9.922 | 71.467 | 1.009×10^6 | | |
| 30.0 TeV | 3.000×10^7 | 3.011 | 36.728 | 51.560 | 15.393 | 106.693 | 1.123×10^6 | | |
| 40.0 TeV | 4.000×10^7 | 3.045 | 49.180 | 68.932 | 21.008 | 142.165 | 1.204×10^6 | | |
| 80.0 TeV | 8.000×10^7 | 3.130 | 99.107 | 138.475 | 44.554 | 285.266 | 1.399×10^6 | | |
| 100. TeV | 1.000×10^8 | 3.158 | 124.135 | 173.288 | 56.754 | 357.334 | 1.461×10^6 | | |