

Muons in octane (C₈H₁₈)

| | $\langle Z/A \rangle$ | ρ [g/cm ³] | I [eV] | a | $k = m_s$ | x_0 | x_1 | \bar{C} | δ_0 |
|----------|-----------------------|-----------------------------|----------|--------------------------|-----------|---------|------------------------------------|-----------|-----------------------------|
| | 0.57778 | 0.703 | 54.7 | 0.11387 | 3.4776 | 0.1882 | 2.5664 | 3.1834 | 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 | 8.629 | | | | 8.629 | | | 6.387×10^{-1} |
| 14.0 MeV | 5.616×10^1 | 6.721 | | | | 6.721 | | | 1.170×10^0 |
| 20.0 MeV | 6.802×10^1 | 5.242 | | | | 5.242 | | | 2.192×10^0 |
| 30.0 MeV | 8.509×10^1 | 4.060 | | | | 4.060 | | | 4.390×10^0 |
| 40.0 MeV | 1.003×10^2 | 3.464 | | | | 3.464 | | | 7.074×10^0 |
| 80.0 MeV | 1.527×10^2 | 2.595 | | | | 2.595 | | | 2.084×10^1 |
| 100. MeV | 1.764×10^2 | 2.433 | | | | 2.433 | | | 2.882×10^1 |
| 140. MeV | 2.218×10^2 | 2.263 | | | | 2.264 | | | 4.595×10^1 |
| 200. MeV | 2.868×10^2 | 2.165 | | | | 2.165 | | | 7.316×10^1 |
| 300. MeV | 3.917×10^2 | 2.124 | | | 0.000 | 2.125 | | | 1.199×10^2 |
| 328. MeV | 4.211×10^2 | 2.123 | | | 0.000 | 2.124 | | | <i>Minimum ionization</i> |
| 400. MeV | 4.945×10^2 | 2.129 | | | 0.000 | 2.129 | | | 1.670×10^2 |
| 800. MeV | 8.995×10^2 | 2.203 | 0.000 | | 0.000 | 2.203 | | | 3.518×10^2 |
| 1.00 GeV | 1.101×10^3 | 2.237 | 0.000 | | 0.000 | 2.238 | | | 4.418×10^2 |
| 1.40 GeV | 1.502×10^3 | 2.293 | 0.000 | | 0.001 | 2.295 | | | 6.183×10^2 |
| 2.00 GeV | 2.103×10^3 | 2.356 | 0.000 | 0.000 | 0.001 | 2.357 | | | 8.760×10^2 |
| 3.00 GeV | 3.104×10^3 | 2.427 | 0.001 | 0.000 | 0.001 | 2.430 | | | 1.293×10^3 |
| 4.00 GeV | 4.104×10^3 | 2.476 | 0.001 | 0.001 | 0.002 | 2.480 | | | 1.701×10^3 |
| 8.00 GeV | 8.105×10^3 | 2.590 | 0.003 | 0.003 | 0.004 | 2.599 | | | 3.271×10^3 |
| 10.0 GeV | 1.011×10^4 | 2.625 | 0.004 | 0.004 | 0.005 | 2.637 | | | 4.035×10^3 |
| 14.0 GeV | 1.411×10^4 | 2.675 | 0.006 | 0.006 | 0.007 | 2.693 | | | 5.535×10^3 |
| 20.0 GeV | 2.011×10^4 | 2.726 | 0.009 | 0.010 | 0.009 | 2.754 | | | 7.736×10^3 |
| 30.0 GeV | 3.011×10^4 | 2.781 | 0.014 | 0.018 | 0.014 | 2.827 | | | 1.132×10^4 |
| 40.0 GeV | 4.011×10^4 | 2.819 | 0.020 | 0.026 | 0.018 | 2.884 | | | 1.482×10^4 |
| 80.0 GeV | 8.011×10^4 | 2.906 | 0.047 | 0.063 | 0.035 | 3.051 | | | 2.828×10^4 |
| 100. GeV | 1.001×10^5 | 2.934 | 0.061 | 0.083 | 0.043 | 3.121 | | | 3.476×10^4 |
| 140. GeV | 1.401×10^5 | 2.974 | 0.090 | 0.125 | 0.060 | 3.249 | | | 4.732×10^4 |
| 200. GeV | 2.001×10^5 | 3.016 | 0.136 | 0.192 | 0.085 | 3.429 | | | 6.528×10^4 |
| 300. GeV | 3.001×10^5 | 3.064 | 0.215 | 0.305 | 0.127 | 3.712 | | | 9.330×10^4 |
| 400. GeV | 4.001×10^5 | 3.098 | 0.297 | 0.424 | 0.170 | 3.989 | | | 1.193×10^5 |
| 800. GeV | 8.001×10^5 | 3.181 | 0.640 | 0.919 | 0.343 | 5.083 | | | 2.079×10^5 |
| 1.00 TeV | 1.000×10^6 | 3.208 | 0.817 | 1.176 | 0.431 | 5.632 | | | 2.452×10^5 |
| 1.31 TeV | 1.312×10^6 | 3.241 | 1.096 | 1.573 | 0.572 | 6.482 | | | <i>Muon critical energy</i> |
| 1.40 TeV | 1.400×10^6 | 3.249 | 1.175 | 1.686 | 0.611 | 6.722 | | | 3.102×10^5 |
| 2.00 TeV | 2.000×10^6 | 3.293 | 1.726 | 2.470 | 0.886 | 8.375 | | | 3.900×10^5 |
| 3.00 TeV | 3.000×10^6 | 3.344 | 2.651 | 3.776 | 1.357 | 11.127 | | | 4.932×10^5 |
| 4.00 TeV | 4.000×10^6 | 3.380 | 3.592 | 5.101 | 1.837 | 13.911 | | | 5.735×10^5 |
| 8.00 TeV | 8.000×10^6 | 3.470 | 7.411 | 10.441 | 3.837 | 25.159 | | | 7.843×10^5 |
| 10.0 TeV | 1.000×10^7 | 3.499 | 9.345 | 13.131 | 4.868 | 30.843 | | | 8.560×10^5 |
| 14.0 TeV | 1.400×10^7 | 3.544 | 13.205 | 18.491 | 6.993 | 42.233 | | | 9.664×10^5 |
| 20.0 TeV | 2.000×10^7 | 3.592 | 19.049 | 26.577 | 10.260 | 59.479 | | | 1.086×10^6 |
| 30.0 TeV | 3.000×10^7 | 3.648 | 28.782 | 40.029 | 15.935 | 88.395 | | | 1.223×10^6 |
| 40.0 TeV | 4.000×10^7 | 3.689 | 38.574 | 53.527 | 21.761 | 117.551 | | | 1.320×10^6 |
| 80.0 TeV | 8.000×10^7 | 3.789 | 77.834 | 107.565 | 46.240 | 235.427 | | | 1.556×10^6 |
| 100. TeV | 1.000×10^8 | 3.821 | 97.517 | 134.617 | 58.939 | 294.895 | | | 1.632×10^6 |