

Muons in lutetium fluoride (LuF₃)

| | $\langle Z/A \rangle$ | ρ [g/cm ³] | I [eV] | a | $k = m_s$ | x_0 | x_1 | \bar{C} | δ_0 |
|----------|-----------------------|-----------------------------|----------|--------------------------|-----------|----------|------------------------------------|-----------|------------|
| | 0.42248 | 8.300 | 458.7 | 0.19861 | 3.0000 | 0.2214 | 3.0000 | 5.2803 | 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 | 4.642 | | | | 4.642 | 1.218×10^0 | | |
| 14.0 MeV | 5.616×10^1 | 3.662 | | | | 3.662 | 2.198×10^0 | | |
| 20.0 MeV | 6.802×10^1 | 2.891 | | | | 2.891 | 4.062×10^0 | | |
| 30.0 MeV | 8.509×10^1 | 2.268 | | | | 2.268 | 8.019×10^0 | | |
| 40.0 MeV | 1.003×10^2 | 1.951 | | | | 1.951 | 1.280×10^1 | | |
| 80.0 MeV | 1.527×10^2 | 1.489 | | | | 1.489 | 3.699×10^1 | | |
| 100. MeV | 1.764×10^2 | 1.408 | | | | 1.408 | 5.083×10^1 | | |
| 140. MeV | 2.218×10^2 | 1.331 | | | | 1.331 | 8.018×10^1 | | |
| 200. MeV | 2.868×10^2 | 1.293 | | | | 1.294 | 1.261×10^2 | | |
| 246. MeV | 3.356×10^2 | 1.288 | | | | 1.289 | <i>Minimum ionization</i> | | |
| 300. MeV | 3.917×10^2 | 1.293 | 0.000 | | 0.000 | 1.293 | 2.036×10^2 | | |
| 400. MeV | 4.945×10^2 | 1.311 | 0.000 | | 0.000 | 1.312 | 2.804×10^2 | | |
| 800. MeV | 8.995×10^2 | 1.394 | 0.001 | | 0.000 | 1.396 | 5.756×10^2 | | |
| 1.00 GeV | 1.101×10^3 | 1.427 | 0.001 | | 0.000 | 1.429 | 7.172×10^2 | | |
| 1.40 GeV | 1.502×10^3 | 1.480 | 0.002 | 0.000 | 0.001 | 1.482 | 9.918×10^2 | | |
| 2.00 GeV | 2.103×10^3 | 1.536 | 0.003 | 0.001 | 0.001 | 1.541 | 1.388×10^3 | | |
| 3.00 GeV | 3.104×10^3 | 1.598 | 0.005 | 0.003 | 0.001 | 1.608 | 2.023×10^3 | | |
| 4.00 GeV | 4.104×10^3 | 1.641 | 0.007 | 0.005 | 0.002 | 1.656 | 2.635×10^3 | | |
| 8.00 GeV | 8.105×10^3 | 1.738 | 0.018 | 0.017 | 0.003 | 1.776 | 4.959×10^3 | | |
| 10.0 GeV | 1.011×10^4 | 1.767 | 0.024 | 0.023 | 0.004 | 1.819 | 6.072×10^3 | | |
| 14.0 GeV | 1.411×10^4 | 1.808 | 0.037 | 0.038 | 0.006 | 1.889 | 8.228×10^3 | | |
| 20.0 GeV | 2.011×10^4 | 1.849 | 0.057 | 0.062 | 0.008 | 1.976 | 1.133×10^4 | | |
| 30.0 GeV | 3.011×10^4 | 1.892 | 0.093 | 0.109 | 0.011 | 2.106 | 1.623×10^4 | | |
| 40.0 GeV | 4.011×10^4 | 1.921 | 0.131 | 0.161 | 0.015 | 2.229 | 2.084×10^4 | | |
| 80.0 GeV | 8.011×10^4 | 1.985 | 0.297 | 0.388 | 0.029 | 2.700 | 3.712×10^4 | | |
| 100. GeV | 1.001×10^5 | 2.005 | 0.385 | 0.510 | 0.037 | 2.938 | 4.422×10^4 | | |
| 140. GeV | 1.401×10^5 | 2.035 | 0.565 | 0.762 | 0.051 | 3.414 | 5.684×10^4 | | |
| 199. GeV | 1.989×10^5 | 2.065 | 0.841 | 1.153 | 0.072 | 4.132 | <i>Muon critical energy</i> | | |
| 200. GeV | 2.001×10^5 | 2.066 | 0.847 | 1.161 | 0.072 | 4.147 | 7.277×10^4 | | |
| 300. GeV | 3.001×10^5 | 2.101 | 1.328 | 1.828 | 0.108 | 5.367 | 9.392×10^4 | | |
| 400. GeV | 4.001×10^5 | 2.126 | 1.826 | 2.520 | 0.144 | 6.617 | 1.107×10^5 | | |
| 800. GeV | 8.001×10^5 | 2.186 | 3.879 | 5.356 | 0.292 | 11.715 | 1.555×10^5 | | |
| 1.00 TeV | 1.000×10^6 | 2.206 | 4.934 | 6.808 | 0.367 | 14.316 | 1.710×10^5 | | |
| 1.40 TeV | 1.400×10^6 | 2.236 | 7.047 | 9.702 | 0.520 | 19.506 | 1.948×10^5 | | |
| 2.00 TeV | 2.000×10^6 | 2.268 | 10.280 | 14.119 | 0.752 | 27.420 | 2.206×10^5 | | |
| 3.00 TeV | 3.000×10^6 | 2.305 | 15.675 | 21.460 | 1.150 | 40.591 | 2.504×10^5 | | |
| 4.00 TeV | 4.000×10^6 | 2.332 | 21.142 | 28.878 | 1.555 | 53.908 | 2.717×10^5 | | |
| 8.00 TeV | 8.000×10^6 | 2.397 | 43.180 | 58.699 | 3.233 | 107.511 | 3.233×10^5 | | |
| 10.0 TeV | 1.000×10^7 | 2.419 | 54.284 | 73.690 | 4.095 | 134.488 | 3.399×10^5 | | |
| 14.0 TeV | 1.400×10^7 | 2.452 | 76.431 | 103.598 | 5.865 | 188.347 | 3.649×10^5 | | |
| 20.0 TeV | 2.000×10^7 | 2.487 | 109.845 | 148.653 | 8.578 | 269.565 | 3.914×10^5 | | |
| 30.0 TeV | 3.000×10^7 | 2.528 | 165.471 | 223.616 | 13.269 | 404.886 | 4.214×10^5 | | |
| 40.0 TeV | 4.000×10^7 | 2.558 | 221.294 | 298.757 | 18.074 | 540.683 | 4.427×10^5 | | |
| 80.0 TeV | 8.000×10^7 | 2.630 | 444.905 | 599.527 | 38.150 | 1085.214 | 4.939×10^5 | | |
| 100. TeV | 1.000×10^8 | 2.654 | 556.893 | 750.049 | 48.525 | 1358.124 | 5.104×10^5 | | |