

Muons in lanthanum chloride (LaCl₃)

| | $\langle Z/A \rangle$ | ρ [g/cm ³] | I [eV] | a | $k = m_s$ | x_0 | x_1 | \bar{C} | δ_0 |
|----------|-----------------------|-----------------------------|----------|--------------------------|-----------|----------|------------------------------------|---------------------|-----------------------------|
| | 0.44034 | 3.860 | 329.5 | 0.20155 | 3.0000 | 0.2418 | 3.0000 | 5.3428 | 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 | 5.109 | | | | 5.109 | | 1.101×10^0 | |
| 14.0 MeV | 5.616×10^1 | 4.020 | | | | 4.020 | | 1.992×10^0 | |
| 20.0 MeV | 6.802×10^1 | 3.166 | | | | 3.166 | | 3.693×10^0 | |
| 30.0 MeV | 8.509×10^1 | 2.477 | | | | 2.477 | | 7.312×10^0 | |
| 40.0 MeV | 1.003×10^2 | 2.127 | | | | 2.127 | | 1.169×10^1 | |
| 80.0 MeV | 1.527×10^2 | 1.618 | | | | 1.618 | | 3.392×10^1 | |
| 100. MeV | 1.764×10^2 | 1.529 | | | | 1.529 | | 4.666×10^1 | |
| 140. MeV | 2.218×10^2 | 1.442 | | | | 1.442 | | 7.372×10^1 | |
| 200. MeV | 2.868×10^2 | 1.400 | | | | 1.400 | | 1.161×10^2 | |
| 253. MeV | 3.431×10^2 | 1.393 | | | 0.000 | 1.394 | | | <i>Minimum ionization</i> |
| 300. MeV | 3.917×10^2 | 1.397 | 0.000 | | 0.000 | 1.397 | | 1.878×10^2 | |
| 400. MeV | 4.945×10^2 | 1.415 | 0.000 | | 0.000 | 1.416 | | 2.589×10^2 | |
| 800. MeV | 8.995×10^2 | 1.501 | 0.001 | | 0.000 | 1.502 | | 5.329×10^2 | |
| 1.00 GeV | 1.101×10^3 | 1.536 | 0.001 | | 0.000 | 1.537 | | 6.645×10^2 | |
| 1.40 GeV | 1.502×10^3 | 1.590 | 0.001 | 0.000 | 0.001 | 1.592 | | 9.199×10^2 | |
| 2.00 GeV | 2.103×10^3 | 1.649 | 0.002 | 0.001 | 0.001 | 1.653 | | 1.289×10^3 | |
| 3.00 GeV | 3.104×10^3 | 1.714 | 0.004 | 0.002 | 0.001 | 1.722 | | 1.881×10^3 | |
| 4.00 GeV | 4.104×10^3 | 1.759 | 0.006 | 0.004 | 0.002 | 1.771 | | 2.453×10^3 | |
| 8.00 GeV | 8.105×10^3 | 1.860 | 0.014 | 0.013 | 0.003 | 1.891 | | 4.631×10^3 | |
| 10.0 GeV | 1.011×10^4 | 1.890 | 0.018 | 0.019 | 0.004 | 1.932 | | 5.677×10^3 | |
| 14.0 GeV | 1.411×10^4 | 1.933 | 0.028 | 0.030 | 0.006 | 1.997 | | 7.712×10^3 | |
| 20.0 GeV | 2.011×10^4 | 1.976 | 0.043 | 0.049 | 0.008 | 2.077 | | 1.066×10^4 | |
| 30.0 GeV | 3.011×10^4 | 2.021 | 0.071 | 0.086 | 0.012 | 2.190 | | 1.534×10^4 | |
| 40.0 GeV | 4.011×10^4 | 2.051 | 0.100 | 0.126 | 0.015 | 2.293 | | 1.980×10^4 | |
| 80.0 GeV | 8.011×10^4 | 2.118 | 0.226 | 0.303 | 0.030 | 2.678 | | 3.592×10^4 | |
| 100. GeV | 1.001×10^5 | 2.139 | 0.293 | 0.398 | 0.037 | 2.868 | | 4.313×10^4 | |
| 140. GeV | 1.401×10^5 | 2.170 | 0.430 | 0.595 | 0.052 | 3.248 | | 5.623×10^4 | |
| 200. GeV | 2.001×10^5 | 2.202 | 0.645 | 0.906 | 0.074 | 3.828 | | 7.323×10^4 | |
| 266. GeV | 2.657×10^5 | 2.228 | 0.884 | 1.246 | 0.098 | 4.456 | | | <i>Muon critical energy</i> |
| 300. GeV | 3.001×10^5 | 2.239 | 1.012 | 1.427 | 0.111 | 4.790 | | 9.655×10^4 | |
| 400. GeV | 4.001×10^5 | 2.265 | 1.391 | 1.968 | 0.148 | 5.772 | | 1.155×10^5 | |
| 800. GeV | 8.001×10^5 | 2.328 | 2.959 | 4.184 | 0.299 | 9.771 | | 1.682×10^5 | |
| 1.00 TeV | 1.000×10^6 | 2.348 | 3.765 | 5.319 | 0.376 | 11.809 | | 1.868×10^5 | |
| 1.40 TeV | 1.400×10^6 | 2.379 | 5.381 | 7.584 | 0.533 | 15.878 | | 2.159×10^5 | |
| 2.00 TeV | 2.000×10^6 | 2.413 | 7.854 | 11.040 | 0.771 | 22.079 | | 2.479×10^5 | |
| 3.00 TeV | 3.000×10^6 | 2.451 | 11.985 | 16.785 | 1.179 | 32.401 | | 2.850×10^5 | |
| 4.00 TeV | 4.000×10^6 | 2.479 | 16.171 | 22.593 | 1.594 | 42.838 | | 3.118×10^5 | |
| 8.00 TeV | 8.000×10^6 | 2.547 | 33.058 | 45.942 | 3.315 | 84.863 | | 3.769×10^5 | |
| 10.0 TeV | 1.000×10^7 | 2.570 | 41.571 | 57.681 | 4.199 | 106.021 | | 3.979×10^5 | |
| 14.0 TeV | 1.400×10^7 | 2.604 | 58.553 | 81.099 | 6.016 | 148.273 | | 4.297×10^5 | |
| 20.0 TeV | 2.000×10^7 | 2.641 | 84.182 | 116.381 | 8.802 | 212.007 | | 4.633×10^5 | |
| 30.0 TeV | 3.000×10^7 | 2.684 | 126.839 | 175.090 | 13.619 | 318.232 | | 5.016×10^5 | |
| 40.0 TeV | 4.000×10^7 | 2.715 | 169.653 | 233.944 | 18.552 | 424.865 | | 5.287×10^5 | |
| 80.0 TeV | 8.000×10^7 | 2.791 | 341.193 | 469.524 | 39.171 | 852.679 | | 5.938×10^5 | |
| 100. TeV | 1.000×10^8 | 2.815 | 427.120 | 587.423 | 49.827 | 1067.186 | | 6.147×10^5 | |