

Muons in baksan rock

| | $\langle Z/A \rangle$ | ρ [g/cm ³] | I [eV] | a | $k = m_s$ | x_0 | x_1 | \bar{C} | δ_0 |
|----------|-----------------------|-----------------------------|----------|--------------------------|-----------|---------|------------------------------------|------------------------|-----------------------------|
| | 0.49228 | 2.740 | 175.6 | 0.15462 | 3.0000 | 0.2000 | 3.0000 | 4.3153 | 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 | 6.286 | | | | 6.286 | | 8.871×10^{-1} | |
| 14.0 MeV | 5.616×10^1 | 4.926 | | | | 4.926 | | 1.613×10^0 | |
| 20.0 MeV | 6.802×10^1 | 3.864 | | | | 3.864 | | 3.004×10^0 | |
| 30.0 MeV | 8.509×10^1 | 3.011 | | | | 3.011 | | 5.976×10^0 | |
| 40.0 MeV | 1.003×10^2 | 2.579 | | | | 2.579 | | 9.587×10^0 | |
| 80.0 MeV | 1.527×10^2 | 1.950 | | | | 1.950 | | 2.798×10^1 | |
| 100. MeV | 1.764×10^2 | 1.836 | | | | 1.836 | | 3.857×10^1 | |
| 140. MeV | 2.218×10^2 | 1.717 | | | | 1.718 | | 6.121×10^1 | |
| 200. MeV | 2.868×10^2 | 1.653 | | | | 1.653 | | 9.695×10^1 | |
| 287. MeV | 3.779×10^2 | 1.635 | | | 0.000 | 1.635 | | | <i>Minimum ionization</i> |
| 300. MeV | 3.917×10^2 | 1.635 | | | 0.000 | 1.635 | | 1.579×10^2 | |
| 400. MeV | 4.945×10^2 | 1.647 | | | 0.000 | 1.648 | | 2.189×10^2 | |
| 800. MeV | 8.995×10^2 | 1.728 | 0.000 | | 0.000 | 1.729 | | 4.559×10^2 | |
| 1.00 GeV | 1.101×10^3 | 1.762 | 0.000 | | 0.000 | 1.763 | | 5.704×10^2 | |
| 1.40 GeV | 1.502×10^3 | 1.818 | 0.001 | 0.000 | 0.001 | 1.819 | | 7.936×10^2 | |
| 2.00 GeV | 2.103×10^3 | 1.878 | 0.001 | 0.000 | 0.001 | 1.881 | | 1.118×10^3 | |
| 3.00 GeV | 3.104×10^3 | 1.947 | 0.002 | 0.001 | 0.001 | 1.951 | | 1.639×10^3 | |
| 4.00 GeV | 4.104×10^3 | 1.994 | 0.002 | 0.002 | 0.002 | 2.000 | | 2.145×10^3 | |
| 8.00 GeV | 8.105×10^3 | 2.102 | 0.005 | 0.005 | 0.004 | 2.117 | | 4.082×10^3 | |
| 10.0 GeV | 1.011×10^4 | 2.134 | 0.007 | 0.007 | 0.005 | 2.154 | | 5.019×10^3 | |
| 14.0 GeV | 1.411×10^4 | 2.181 | 0.011 | 0.012 | 0.006 | 2.211 | | 6.851×10^3 | |
| 20.0 GeV | 2.011×10^4 | 2.228 | 0.017 | 0.020 | 0.009 | 2.274 | | 9.525×10^3 | |
| 30.0 GeV | 3.011×10^4 | 2.277 | 0.028 | 0.034 | 0.013 | 2.353 | | 1.385×10^4 | |
| 40.0 GeV | 4.011×10^4 | 2.310 | 0.040 | 0.050 | 0.017 | 2.418 | | 1.804×10^4 | |
| 80.0 GeV | 8.011×10^4 | 2.386 | 0.090 | 0.121 | 0.033 | 2.630 | | 3.387×10^4 | |
| 100. GeV | 1.001×10^5 | 2.409 | 0.116 | 0.160 | 0.041 | 2.726 | | 4.134×10^4 | |
| 140. GeV | 1.401×10^5 | 2.443 | 0.171 | 0.239 | 0.057 | 2.911 | | 5.554×10^4 | |
| 200. GeV | 2.001×10^5 | 2.479 | 0.257 | 0.365 | 0.080 | 3.183 | | 7.524×10^4 | |
| 300. GeV | 3.001×10^5 | 2.520 | 0.405 | 0.578 | 0.121 | 3.624 | | 1.047×10^5 | |
| 400. GeV | 4.001×10^5 | 2.549 | 0.557 | 0.800 | 0.161 | 4.067 | | 1.307×10^5 | |
| 654. GeV | 6.541×10^5 | 2.599 | 0.957 | 1.378 | 0.264 | 5.199 | | | <i>Muon critical energy</i> |
| 800. GeV | 8.001×10^5 | 2.620 | 1.191 | 1.717 | 0.325 | 5.853 | | 2.123×10^5 | |
| 1.00 TeV | 1.000×10^6 | 2.643 | 1.518 | 2.191 | 0.408 | 6.759 | | 2.440×10^5 | |
| 1.40 TeV | 1.400×10^6 | 2.677 | 2.175 | 3.131 | 0.579 | 8.562 | | 2.965×10^5 | |
| 2.00 TeV | 2.000×10^6 | 2.715 | 3.182 | 4.568 | 0.837 | 11.303 | | 3.573×10^5 | |
| 3.00 TeV | 3.000×10^6 | 2.758 | 4.868 | 6.961 | 1.282 | 15.870 | | 4.317×10^5 | |
| 4.00 TeV | 4.000×10^6 | 2.789 | 6.581 | 9.384 | 1.735 | 20.489 | | 4.870×10^5 | |
| 8.00 TeV | 8.000×10^6 | 2.865 | 13.504 | 19.135 | 3.616 | 39.122 | | 6.259×10^5 | |
| 10.0 TeV | 1.000×10^7 | 2.891 | 17.001 | 24.043 | 4.585 | 48.519 | | 6.717×10^5 | |
| 14.0 TeV | 1.400×10^7 | 2.929 | 23.981 | 33.825 | 6.577 | 67.313 | | 7.414×10^5 | |
| 20.0 TeV | 2.000×10^7 | 2.970 | 34.533 | 48.572 | 9.635 | 95.710 | | 8.158×10^5 | |
| 30.0 TeV | 3.000×10^7 | 3.018 | 52.077 | 73.118 | 14.937 | 143.150 | | 9.006×10^5 | |
| 40.0 TeV | 4.000×10^7 | 3.052 | 69.699 | 97.737 | 20.373 | 190.862 | | 9.609×10^5 | |
| 80.0 TeV | 8.000×10^7 | 3.137 | 140.364 | 196.287 | 43.149 | 382.939 | | 1.106×10^6 | |
| 100. TeV | 1.000×10^8 | 3.165 | 175.788 | 245.614 | 54.942 | 479.509 | | 1.153×10^6 | |