

Table 101: Muons in Acetylene (CHCH)

| $\langle Z/A \rangle$ | ρ [g/cm ³] | I [eV] | a | $k = m_s$ | x_0 | x_1 | \bar{C} | δ_0 |
|-----------------------|-----------------------------|------------|---------|---------------------------------------|-----------|---------|------------------------------------|------------|
| 0.53768 | 1.097×10^{-3} | 58.2 | 0.12167 | 3.4277 | 1.6017 | 4.0074 | 9.8419 | 0.00 |
| T | p [MeV/c] | Ionization | Brems | Pair prod [MeV cm ² /g] | Photonucl | Total | CSDA range [g/cm ²] | |
| 10.0 MeV | 4.704×10^1 | 7.968 | | | | 7.968 | 6.921×10^{-1} | |
| 14.0 MeV | 5.616×10^1 | 6.208 | | | | 6.208 | 1.267×10^0 | |
| 20.0 MeV | 6.802×10^1 | 4.843 | | | | 4.843 | 2.374×10^0 | |
| 30.0 MeV | 8.509×10^1 | 3.753 | | | | 3.753 | 4.753×10^0 | |
| 40.0 MeV | 1.003×10^2 | 3.202 | | | | 3.202 | 7.656×10^0 | |
| 80.0 MeV | 1.527×10^2 | 2.399 | | | | 2.400 | 2.255×10^1 | |
| 100. MeV | 1.764×10^2 | 2.255 | | | | 2.256 | 3.117×10^1 | |
| 140. MeV | 2.218×10^2 | 2.113 | | | | 2.114 | 4.958×10^1 | |
| 200. MeV | 2.868×10^2 | 2.040 | | | | 2.040 | 7.858×10^1 | |
| 263. MeV | 3.537×10^2 | 2.025 | | | 0.000 | 2.025 | <i>Minimum ionization</i> | |
| 300. MeV | 3.917×10^2 | 2.028 | | | 0.000 | 2.028 | 1.279×10^2 | |
| 400. MeV | 4.945×10^2 | 2.053 | | | 0.000 | 2.053 | 1.769×10^2 | |
| 800. MeV | 8.995×10^2 | 2.184 | 0.000 | | 0.000 | 2.185 | 3.657×10^2 | |
| 1.00 GeV | 1.101×10^3 | 2.240 | 0.000 | | 0.000 | 2.241 | 4.560×10^2 | |
| 1.40 GeV | 1.502×10^3 | 2.332 | 0.000 | | 0.001 | 2.333 | 6.308×10^2 | |
| 2.00 GeV | 2.103×10^3 | 2.435 | 0.000 | 0.000 | 0.001 | 2.437 | 8.822×10^2 | |
| 3.00 GeV | 3.104×10^3 | 2.557 | 0.001 | 0.001 | 0.001 | 2.560 | 1.282×10^3 | |
| 4.00 GeV | 4.104×10^3 | 2.645 | 0.001 | 0.001 | 0.002 | 2.649 | 1.666×10^3 | |
| 8.00 GeV | 8.105×10^3 | 2.820 | 0.003 | 0.003 | 0.004 | 2.829 | 3.120×10^3 | |
| 10.0 GeV | 1.011×10^4 | 2.870 | 0.004 | 0.004 | 0.005 | 2.883 | 3.820×10^3 | |
| 14.0 GeV | 1.411×10^4 | 2.942 | 0.006 | 0.006 | 0.007 | 2.961 | 5.188×10^3 | |
| 20.0 GeV | 2.011×10^4 | 3.011 | 0.009 | 0.010 | 0.009 | 3.040 | 7.186×10^3 | |
| 30.0 GeV | 3.011×10^4 | 3.082 | 0.015 | 0.018 | 0.014 | 3.130 | 1.042×10^4 | |
| 40.0 GeV | 4.011×10^4 | 3.129 | 0.021 | 0.027 | 0.018 | 3.195 | 1.359×10^4 | |
| 80.0 GeV | 8.011×10^4 | 3.229 | 0.049 | 0.065 | 0.035 | 3.378 | 2.574×10^4 | |
| 100. GeV | 1.001×10^5 | 3.258 | 0.063 | 0.086 | 0.043 | 3.451 | 3.159×10^4 | |
| 140. GeV | 1.401×10^5 | 3.300 | 0.093 | 0.130 | 0.059 | 3.583 | 4.297×10^4 | |
| 200. GeV | 2.001×10^5 | 3.343 | 0.141 | 0.199 | 0.084 | 3.767 | 5.929×10^4 | |
| 300. GeV | 3.001×10^5 | 3.390 | 0.222 | 0.316 | 0.126 | 4.055 | 8.486×10^4 | |
| 400. GeV | 4.001×10^5 | 3.422 | 0.307 | 0.439 | 0.168 | 4.337 | 1.087×10^5 | |
| 800. GeV | 8.001×10^5 | 3.500 | 0.661 | 0.951 | 0.340 | 5.452 | 1.908×10^5 | |
| 1.00 TeV | 1.000×10^6 | 3.525 | 0.844 | 1.216 | 0.428 | 6.012 | 2.257×10^5 | |
| 1.40 TeV | 1.400×10^6 | 3.563 | 1.212 | 1.743 | 0.606 | 7.125 | 2.867×10^5 | |
| 1.40 TeV | 1.400×10^6 | 3.563 | 1.213 | 1.744 | 0.607 | 7.126 | <i>Muon critical energy</i> | |
| 2.00 TeV | 2.000×10^6 | 3.604 | 1.779 | 2.552 | 0.878 | 8.814 | 3.623×10^5 | |
| 3.00 TeV | 3.000×10^6 | 3.651 | 2.730 | 3.899 | 1.346 | 11.626 | 4.608×10^5 | |
| 4.00 TeV | 4.000×10^6 | 3.685 | 3.698 | 5.266 | 1.822 | 14.471 | 5.378×10^5 | |
| 8.00 TeV | 8.000×10^6 | 3.768 | 7.621 | 10.772 | 3.804 | 25.966 | 7.413×10^5 | |
| 10.0 TeV | 1.000×10^7 | 3.796 | 9.606 | 13.547 | 4.825 | 31.774 | 8.108×10^5 | |
| 14.0 TeV | 1.400×10^7 | 3.838 | 13.568 | 19.074 | 6.931 | 43.410 | 9.181×10^5 | |
| 20.0 TeV | 2.000×10^7 | 3.883 | 19.563 | 27.412 | 10.166 | 61.024 | 1.034×10^6 | |
| 30.0 TeV | 3.000×10^7 | 3.935 | 29.546 | 41.284 | 15.784 | 90.549 | 1.168×10^6 | |
| 40.0 TeV | 4.000×10^7 | 3.972 | 39.586 | 55.203 | 21.551 | 120.312 | 1.263×10^6 | |
| 80.0 TeV | 8.000×10^7 | 4.065 | 79.826 | 110.926 | 45.767 | 240.583 | 1.494×10^6 | |
| 100. TeV | 1.000×10^8 | 4.096 | 99.994 | 138.821 | 58.325 | 301.236 | 1.568×10^6 | |