## Table 145: Muons in Cyclohexane ($C_6H_{12}$)

| $\langle Z/A \rangle$ | $\rho$ [g/cm$^3$] | $I$ [eV] | $a$ | $k = m_s$ | $x_0$ | $x_1$ | $\overline{C}$ | $\delta_0$ |
|---|---|---|---|---|---|---|---|---|
| 0.57034 | 0.779 | 56.4 | 0.12035 | 3.4278 | 0.1728 | 2.5549 | 3.1544 | 0.00 |

| $T$ | $p$ [MeV/$c$] | Ionization | Brems | Pair prod | Photonucl | Total | CSDA range [g/cm$^2$] |
|---|---|---|---|---|---|---|---|
| | | [MeV cm$^2$/g] | | | | | |
| 10.0 MeV | $4.704 \times 10^1$ | 8.485 | | | | 8.485 | $6.497 \times 10^{-1}$ |
| 14.0 MeV | $5.616 \times 10^1$ | 6.610 | | | | 6.610 | $1.189 \times 10^0$ |
| 20.0 MeV | $6.802 \times 10^1$ | 5.156 | | | | 5.156 | $2.229 \times 10^0$ |
| 30.0 MeV | $8.509 \times 10^1$ | 3.995 | | | | 3.995 | $4.464 \times 10^0$ |
| 40.0 MeV | $1.003 \times 10^2$ | 3.408 | | | | 3.408 | $7.192 \times 10^0$ |
| 80.0 MeV | $1.527 \times 10^2$ | 2.553 | | | | 2.553 | $2.119 \times 10^1$ |
| 100. MeV | $1.764 \times 10^2$ | 2.392 | | | | 2.392 | $2.930 \times 10^1$ |
| 140. MeV | $2.218 \times 10^2$ | 2.225 | | | | 2.225 | $4.672 \times 10^1$ |
| 200. MeV | $2.868 \times 10^2$ | 2.128 | | | | 2.128 | $7.440 \times 10^1$ |
| 300. MeV | $3.917 \times 10^2$ | 2.089 | | | 0.000 | 2.089 | $1.220 \times 10^2$ |
| 328. MeV | $4.211 \times 10^2$ | 2.087 | | | 0.000 | 2.088 | *Minimum ionization* |
| 400. MeV | $4.945 \times 10^2$ | 2.093 | | | 0.000 | 2.093 | $1.698 \times 10^2$ |
| 800. MeV | $8.995 \times 10^2$ | 2.166 | 0.000 | | 0.000 | 2.166 | $3.578 \times 10^2$ |
| 1.00 GeV | $1.101 \times 10^3$ | 2.200 | 0.000 | | 0.000 | 2.201 | $4.494 \times 10^2$ |
| 1.40 GeV | $1.502 \times 10^3$ | 2.256 | 0.000 | | 0.001 | 2.257 | $6.288 \times 10^2$ |
| 2.00 GeV | $2.103 \times 10^3$ | 2.317 | 0.000 | 0.000 | 0.001 | 2.319 | $8.908 \times 10^2$ |
| 3.00 GeV | $3.104 \times 10^3$ | 2.388 | 0.001 | 0.000 | 0.001 | 2.390 | $1.315 \times 10^3$ |
| 4.00 GeV | $4.104 \times 10^3$ | 2.436 | 0.001 | 0.001 | 0.002 | 2.440 | $1.729 \times 10^3$ |
| 8.00 GeV | $8.105 \times 10^3$ | 2.549 | 0.003 | 0.003 | 0.004 | 2.558 | $3.325 \times 10^3$ |
| 10.0 GeV | $1.011 \times 10^4$ | 2.583 | 0.004 | 0.004 | 0.005 | 2.595 | $4.101 \times 10^3$ |
| 14.0 GeV | $1.411 \times 10^4$ | 2.633 | 0.006 | 0.006 | 0.007 | 2.651 | $5.625 \times 10^3$ |
| 20.0 GeV | $2.011 \times 10^4$ | 2.683 | 0.009 | 0.010 | 0.009 | 2.711 | $7.861 \times 10^3$ |
| 30.0 GeV | $3.011 \times 10^4$ | 2.738 | 0.015 | 0.018 | 0.014 | 2.784 | $1.150 \times 10^4$ |
| 40.0 GeV | $4.011 \times 10^4$ | 2.775 | 0.021 | 0.026 | 0.018 | 2.840 | $1.505 \times 10^4$ |
| 80.0 GeV | $8.011 \times 10^4$ | 2.861 | 0.047 | 0.063 | 0.035 | 3.007 | $2.872 \times 10^4$ |
| 100. GeV | $1.001 \times 10^5$ | 2.888 | 0.061 | 0.084 | 0.043 | 3.076 | $3.529 \times 10^4$ |
| 140. GeV | $1.401 \times 10^5$ | 2.928 | 0.091 | 0.126 | 0.060 | 3.204 | $4.803 \times 10^4$ |
| 200. GeV | $2.001 \times 10^5$ | 2.970 | 0.137 | 0.193 | 0.085 | 3.385 | $6.624 \times 10^4$ |
| 300. GeV | $3.001 \times 10^5$ | 3.017 | 0.216 | 0.307 | 0.127 | 3.668 | $9.461 \times 10^4$ |
| 400. GeV | $4.001 \times 10^5$ | 3.051 | 0.299 | 0.427 | 0.170 | 3.946 | $1.209 \times 10^5$ |
| 800. GeV | $8.001 \times 10^5$ | 3.132 | 0.644 | 0.925 | 0.343 | 5.044 | $2.103 \times 10^5$ |
| 1.00 TeV | $1.000 \times 10^6$ | 3.159 | 0.822 | 1.183 | 0.430 | 5.595 | $2.479 \times 10^5$ |
| 1.29 TeV | $1.287 \times 10^6$ | 3.189 | 1.079 | 1.550 | 0.559 | 6.378 | *Muon critical energy* |
| 1.40 TeV | $1.400 \times 10^6$ | 3.199 | 1.182 | 1.697 | 0.611 | 6.689 | $3.132 \times 10^5$ |
| 2.00 TeV | $2.000 \times 10^6$ | 3.243 | 1.736 | 2.485 | 0.884 | 8.348 | $3.934 \times 10^5$ |
| 3.00 TeV | $3.000 \times 10^6$ | 3.293 | 2.665 | 3.799 | 1.355 | 11.112 | $4.969 \times 10^5$ |
| 4.00 TeV | $4.000 \times 10^6$ | 3.329 | 3.612 | 5.132 | 1.834 | 13.907 | $5.772 \times 10^5$ |
| 8.00 TeV | $8.000 \times 10^6$ | 3.417 | 7.450 | 10.502 | 3.831 | 25.201 | $7.878 \times 10^5$ |
| 10.0 TeV | $1.000 \times 10^7$ | 3.446 | 9.393 | 13.208 | 4.860 | 30.908 | $8.594 \times 10^5$ |
| 14.0 TeV | $1.400 \times 10^7$ | 3.490 | 13.272 | 18.599 | 6.982 | 42.344 | $9.695 \times 10^5$ |
| 20.0 TeV | $2.000 \times 10^7$ | 3.538 | 19.144 | 26.732 | 10.243 | 59.658 | $1.088 \times 10^6$ |
| 30.0 TeV | $3.000 \times 10^7$ | 3.594 | 28.924 | 40.262 | 15.907 | 88.687 | $1.225 \times 10^6$ |
| 40.0 TeV | $4.000 \times 10^7$ | 3.633 | 38.762 | 53.838 | 21.722 | 117.955 | $1.322 \times 10^6$ |
| 80.0 TeV | $8.000 \times 10^7$ | 3.732 | 78.203 | 108.188 | 46.153 | 236.276 | $1.557 \times 10^6$ |
| 100. TeV | $1.000 \times 10^8$ | 3.764 | 97.977 | 135.397 | 58.825 | 295.964 | $1.633 \times 10^6$ |