## Table 220: Muons in Polychlorostyrene $(C_{17}H_{18}C_{l2})_n$

| $\langle Z/A \rangle$ | $\rho$ [g/cm$^3$] | $I$ [eV] | $a$ | $k = m_s$ | $x_0$ | $x_1$ | $\overline{C}$ | $\delta_0$ |
|---|---|---|---|---|---|---|---|---|
| 0.52518 | 1.300 | 81.7 | 0.07530 | 3.5441 | 0.1238 | 2.9241 | 3.4659 | 0.00 |

| $T$ | $p$ [MeV/$c$] | Ionization | Brems | Pair prod | Photonucl | Total | CSDA range [g/cm$^2$] |
|---|---|---|---|---|---|---|---|
| | | [MeV cm$^2$/g] | | | | | |
| 10.0 MeV | $4.704 \times 10^1$ | 7.452 | | | | 7.452 | $7.422 \times 10^{-1}$ |
| 14.0 MeV | $5.616 \times 10^1$ | 5.816 | | | | 5.816 | $1.356 \times 10^0$ |
| 20.0 MeV | $6.802 \times 10^1$ | 4.544 | | | | 4.544 | $2.537 \times 10^0$ |
| 30.0 MeV | $8.509 \times 10^1$ | 3.526 | | | | 3.526 | $5.070 \times 10^0$ |
| 40.0 MeV | $1.003 \times 10^2$ | 3.012 | | | | 3.012 | $8.159 \times 10^0$ |
| 80.0 MeV | $1.527 \times 10^2$ | 2.258 | | | | 2.259 | $2.397 \times 10^1$ |
| 100. MeV | $1.764 \times 10^2$ | 2.117 | | | | 2.117 | $3.314 \times 10^1$ |
| 140. MeV | $2.218 \times 10^2$ | 1.973 | | | | 1.973 | $5.281 \times 10^1$ |
| 200. MeV | $2.868 \times 10^2$ | 1.890 | | | | 1.890 | $8.400 \times 10^1$ |
| 300. MeV | $3.917 \times 10^2$ | 1.860 | | | 0.000 | 1.860 | $1.375 \times 10^2$ |
| 314. MeV | $4.065 \times 10^2$ | 1.859 | | | 0.000 | 1.860 | *Minimum ionization* |
| 400. MeV | $4.945 \times 10^2$ | 1.867 | | | 0.000 | 1.867 | $1.912 \times 10^2$ |
| 800. MeV | $8.995 \times 10^2$ | 1.940 | 0.000 | | 0.000 | 1.941 | $4.014 \times 10^2$ |
| 1.00 GeV | $1.101 \times 10^3$ | 1.973 | 0.000 | | 0.000 | 1.974 | $5.036 \times 10^2$ |
| 1.40 GeV | $1.502 \times 10^3$ | 2.027 | 0.000 | 0.000 | 0.001 | 2.028 | $7.033 \times 10^2$ |
| 2.00 GeV | $2.103 \times 10^3$ | 2.086 | 0.001 | 0.000 | 0.001 | 2.088 | $9.946 \times 10^2$ |
| 3.00 GeV | $3.104 \times 10^3$ | 2.154 | 0.001 | 0.001 | 0.001 | 2.157 | $1.465 \times 10^3$ |
| 4.00 GeV | $4.104 \times 10^3$ | 2.201 | 0.002 | 0.001 | 0.002 | 2.205 | $1.923 \times 10^3$ |
| 8.00 GeV | $8.105 \times 10^3$ | 2.308 | 0.004 | 0.004 | 0.004 | 2.319 | $3.687 \times 10^3$ |
| 10.0 GeV | $1.011 \times 10^4$ | 2.340 | 0.005 | 0.005 | 0.005 | 2.356 | $4.542 \times 10^3$ |
| 14.0 GeV | $1.411 \times 10^4$ | 2.387 | 0.008 | 0.009 | 0.007 | 2.411 | $6.219 \times 10^3$ |
| 20.0 GeV | $2.011 \times 10^4$ | 2.435 | 0.012 | 0.014 | 0.009 | 2.471 | $8.676 \times 10^3$ |
| 30.0 GeV | $3.011 \times 10^4$ | 2.486 | 0.020 | 0.025 | 0.013 | 2.545 | $1.266 \times 10^4$ |
| 40.0 GeV | $4.011 \times 10^4$ | 2.521 | 0.029 | 0.037 | 0.018 | 2.604 | $1.654 \times 10^4$ |
| 80.0 GeV | $8.011 \times 10^4$ | 2.600 | 0.066 | 0.089 | 0.034 | 2.789 | $3.136 \times 10^4$ |
| 100. GeV | $1.001 \times 10^5$ | 2.625 | 0.085 | 0.117 | 0.042 | 2.870 | $3.843 \times 10^4$ |
| 140. GeV | $1.401 \times 10^5$ | 2.661 | 0.126 | 0.176 | 0.058 | 3.022 | $5.201 \times 10^4$ |
| 200. GeV | $2.001 \times 10^5$ | 2.700 | 0.189 | 0.269 | 0.083 | 3.242 | $7.117 \times 10^4$ |
| 300. GeV | $3.001 \times 10^5$ | 2.744 | 0.299 | 0.427 | 0.124 | 3.593 | $1.005 \times 10^5$ |
| 400. GeV | $4.001 \times 10^5$ | 2.774 | 0.412 | 0.591 | 0.166 | 3.943 | $1.270 \times 10^5$ |
| 800. GeV | $8.001 \times 10^5$ | 2.850 | 0.883 | 1.272 | 0.335 | 5.340 | $2.138 \times 10^5$ |
| 910. GeV | $9.104 \times 10^5$ | 2.864 | 1.017 | 1.465 | 0.382 | 5.728 | *Muon critical energy* |
| 1.00 TeV | $1.000 \times 10^6$ | 2.874 | 1.126 | 1.624 | 0.421 | 6.045 | $2.490 \times 10^5$ |
| 1.40 TeV | $1.400 \times 10^6$ | 2.911 | 1.616 | 2.324 | 0.597 | 7.448 | $3.085 \times 10^5$ |
| 2.00 TeV | $2.000 \times 10^6$ | 2.951 | 2.367 | 3.397 | 0.864 | 9.579 | $3.794 \times 10^5$ |
| 3.00 TeV | $3.000 \times 10^6$ | 2.997 | 3.627 | 5.181 | 1.324 | 13.129 | $4.682 \times 10^5$ |
| 4.00 TeV | $4.000 \times 10^6$ | 3.030 | 4.907 | 6.991 | 1.791 | 16.719 | $5.356 \times 10^5$ |
| 8.00 TeV | $8.000 \times 10^6$ | 3.112 | 10.089 | 14.275 | 3.738 | 31.214 | $7.079 \times 10^5$ |
| 10.0 TeV | $1.000 \times 10^7$ | 3.139 | 12.708 | 17.943 | 4.740 | 38.530 | $7.655 \times 10^5$ |
| 14.0 TeV | $1.400 \times 10^7$ | 3.179 | 17.936 | 25.252 | 6.806 | 53.173 | $8.535 \times 10^5$ |
| 20.0 TeV | $2.000 \times 10^7$ | 3.223 | 25.842 | 36.274 | 9.979 | 75.319 | $9.479 \times 10^5$ |
| 30.0 TeV | $3.000 \times 10^7$ | 3.274 | 38.999 | 54.616 | 15.485 | 112.376 | $1.056 \times 10^6$ |
| 40.0 TeV | $4.000 \times 10^7$ | 3.311 | 52.223 | 73.016 | 21.136 | 149.686 | $1.133 \times 10^6$ |
| 80.0 TeV | $8.000 \times 10^7$ | 3.402 | 105.229 | 146.673 | 44.847 | 300.151 | $1.318 \times 10^6$ |
| 100. TeV | $1.000 \times 10^8$ | 3.431 | 131.796 | 183.544 | 57.136 | 375.907 | $1.377 \times 10^6$ |