

Table 220: Muons in Polychlorostyrene ($C_{17}H_{18}C_{12}$)_n

| $\langle Z/A \rangle$ | ρ [g/cm ³] | I [eV] | a | $k = m_s$ | x_0 | x_1 | \bar{C} | δ_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 [MeV cm ² /g] | Photonucl | Total | CSDA range [g/cm ²] | |
| 10.0 MeV | 4.704×10^1 | 7.452 | | | | 7.452 | 7.422×10^{-1} | |
| 14.0 MeV | 5.616×10^1 | 5.816 | | | | 5.816 | 1.356×10^0 | |
| 20.0 MeV | 6.802×10^1 | 4.544 | | | | 4.544 | 2.537×10^0 | |
| 30.0 MeV | 8.509×10^1 | 3.526 | | | | 3.526 | 5.070×10^0 | |
| 40.0 MeV | 1.003×10^2 | 3.012 | | | | 3.012 | 8.159×10^0 | |
| 80.0 MeV | 1.527×10^2 | 2.258 | | | | 2.259 | 2.397×10^1 | |
| 100. MeV | 1.764×10^2 | 2.117 | | | | 2.117 | 3.314×10^1 | |
| 140. MeV | 2.218×10^2 | 1.973 | | | | 1.973 | 5.281×10^1 | |
| 200. MeV | 2.868×10^2 | 1.890 | | | | 1.890 | 8.400×10^1 | |
| 300. MeV | 3.917×10^2 | 1.860 | | | 0.000 | 1.860 | 1.375×10^2 | |
| 314. MeV | 4.065×10^2 | 1.859 | | | 0.000 | 1.860 | <i>Minimum ionization</i> | |
| 400. MeV | 4.945×10^2 | 1.867 | | | 0.000 | 1.867 | 1.912×10^2 | |
| 800. MeV | 8.995×10^2 | 1.940 | 0.000 | | 0.000 | 1.941 | 4.014×10^2 | |
| 1.00 GeV | 1.101×10^3 | 1.973 | 0.000 | | 0.000 | 1.974 | 5.036×10^2 | |
| 1.40 GeV | 1.502×10^3 | 2.027 | 0.000 | 0.000 | 0.001 | 2.028 | 7.033×10^2 | |
| 2.00 GeV | 2.103×10^3 | 2.086 | 0.001 | 0.000 | 0.001 | 2.088 | 9.946×10^2 | |
| 3.00 GeV | 3.104×10^3 | 2.154 | 0.001 | 0.001 | 0.001 | 2.157 | 1.465×10^3 | |
| 4.00 GeV | 4.104×10^3 | 2.201 | 0.002 | 0.001 | 0.002 | 2.205 | 1.923×10^3 | |
| 8.00 GeV | 8.105×10^3 | 2.308 | 0.004 | 0.004 | 0.004 | 2.319 | 3.687×10^3 | |
| 10.0 GeV | 1.011×10^4 | 2.340 | 0.005 | 0.005 | 0.005 | 2.356 | 4.542×10^3 | |
| 14.0 GeV | 1.411×10^4 | 2.387 | 0.008 | 0.009 | 0.007 | 2.411 | 6.219×10^3 | |
| 20.0 GeV | 2.011×10^4 | 2.435 | 0.012 | 0.014 | 0.009 | 2.471 | 8.676×10^3 | |
| 30.0 GeV | 3.011×10^4 | 2.486 | 0.020 | 0.025 | 0.013 | 2.545 | 1.266×10^4 | |
| 40.0 GeV | 4.011×10^4 | 2.521 | 0.029 | 0.037 | 0.018 | 2.604 | 1.654×10^4 | |
| 80.0 GeV | 8.011×10^4 | 2.600 | 0.066 | 0.089 | 0.034 | 2.789 | 3.136×10^4 | |
| 100. GeV | 1.001×10^5 | 2.625 | 0.085 | 0.117 | 0.042 | 2.870 | 3.843×10^4 | |
| 140. GeV | 1.401×10^5 | 2.661 | 0.126 | 0.176 | 0.058 | 3.022 | 5.201×10^4 | |
| 200. GeV | 2.001×10^5 | 2.700 | 0.189 | 0.269 | 0.083 | 3.242 | 7.117×10^4 | |
| 300. GeV | 3.001×10^5 | 2.744 | 0.299 | 0.427 | 0.124 | 3.593 | 1.005×10^5 | |
| 400. GeV | 4.001×10^5 | 2.774 | 0.412 | 0.591 | 0.166 | 3.943 | 1.270×10^5 | |
| 800. GeV | 8.001×10^5 | 2.850 | 0.883 | 1.272 | 0.335 | 5.340 | 2.138×10^5 | |
| 910. GeV | 9.104×10^5 | 2.864 | 1.017 | 1.465 | 0.382 | 5.728 | <i>Muon critical energy</i> | |
| 1.00 TeV | 1.000×10^6 | 2.874 | 1.126 | 1.624 | 0.421 | 6.045 | 2.490×10^5 | |
| 1.40 TeV | 1.400×10^6 | 2.911 | 1.616 | 2.324 | 0.597 | 7.448 | 3.085×10^5 | |
| 2.00 TeV | 2.000×10^6 | 2.951 | 2.367 | 3.397 | 0.864 | 9.579 | 3.794×10^5 | |
| 3.00 TeV | 3.000×10^6 | 2.997 | 3.627 | 5.181 | 1.324 | 13.129 | 4.682×10^5 | |
| 4.00 TeV | 4.000×10^6 | 3.030 | 4.907 | 6.991 | 1.791 | 16.719 | 5.356×10^5 | |
| 8.00 TeV | 8.000×10^6 | 3.112 | 10.089 | 14.275 | 3.738 | 31.214 | 7.079×10^5 | |
| 10.0 TeV | 1.000×10^7 | 3.139 | 12.708 | 17.943 | 4.740 | 38.530 | 7.655×10^5 | |
| 14.0 TeV | 1.400×10^7 | 3.179 | 17.936 | 25.252 | 6.806 | 53.173 | 8.535×10^5 | |
| 20.0 TeV | 2.000×10^7 | 3.223 | 25.842 | 36.274 | 9.979 | 75.319 | 9.479×10^5 | |
| 30.0 TeV | 3.000×10^7 | 3.274 | 38.999 | 54.616 | 15.485 | 112.376 | 1.056×10^6 | |
| 40.0 TeV | 4.000×10^7 | 3.311 | 52.223 | 73.016 | 21.136 | 149.686 | 1.133×10^6 | |
| 80.0 TeV | 8.000×10^7 | 3.402 | 105.229 | 146.673 | 44.847 | 300.151 | 1.318×10^6 | |
| 100. TeV | 1.000×10^8 | 3.431 | 131.796 | 183.544 | 57.136 | 375.907 | 1.377×10^6 | |