## Table 311: Muons in Bohrium

| Z | $A$ [g/mol] | $\rho$ [g/cm$^3$] | $I$ [eV] | $a$ | $k = m_s$ | $x_0$ | $x_1$ | $\overline{C}$ | $\delta_0$ |
|---|---|---|---|---|---|---|---|---|---|
| 107 (Bh) | [270.134 (4)] | ?? | 1087.0 | 0.27391 | 3.0000 | 0.6345 | 3.0000 | 6.5475 | 0.00 |

| $T$ | $p$ [MeV/$c$] | Ionization | Brems | Pair prod | Photonucl | Total | CSDA range [g/cm$^2$] |
|---|---|---|---|---|---|---|---|
| | | [MeV cm$^2$/g] | | | | | |
| 10.0 MeV | $4.704 \times 10^1$ | 3.559 | | | | 3.559 | $1.669 \times 10^0$ |
| 14.0 MeV | $5.616 \times 10^1$ | 2.869 | | | | 2.869 | $2.931 \times 10^0$ |
| 20.0 MeV | $6.802 \times 10^1$ | 2.305 | | | | 2.305 | $5.287 \times 10^0$ |
| 30.0 MeV | $8.509 \times 10^1$ | 1.836 | | | | 1.836 | $1.021 \times 10^1$ |
| 40.0 MeV | $1.003 \times 10^2$ | 1.593 | | | | 1.593 | $1.609 \times 10^1$ |
| 80.0 MeV | $1.527 \times 10^2$ | 1.237 | | | | 1.237 | $4.540 \times 10^1$ |
| 100. MeV | $1.764 \times 10^2$ | 1.175 | | | | 1.175 | $6.203 \times 10^1$ |
| 140. MeV | $2.218 \times 10^2$ | 1.118 | | | | 1.119 | $9.707 \times 10^1$ |
| 200. MeV | $2.868 \times 10^2$ | 1.098 | 0.000 | | | 1.098 | $1.514 \times 10^2$ |
| 207. MeV | $2.943 \times 10^2$ | 1.097 | 0.000 | | | 1.098 | *Minimum ionization* |
| 300. MeV | $3.917 \times 10^2$ | 1.112 | 0.000 | | 0.000 | 1.112 | $2.421 \times 10^2$ |
| 400. MeV | $4.945 \times 10^2$ | 1.139 | 0.000 | | 0.000 | 1.140 | $3.309 \times 10^2$ |
| 800. MeV | $8.995 \times 10^2$ | 1.238 | 0.001 | | 0.000 | 1.240 | $6.664 \times 10^2$ |
| 1.00 GeV | $1.101 \times 10^3$ | 1.274 | 0.002 | | 0.000 | 1.277 | $8.253 \times 10^2$ |
| 1.40 GeV | $1.502 \times 10^3$ | 1.330 | 0.003 | | 0.000 | 1.334 | $1.131 \times 10^3$ |
| 2.00 GeV | $2.103 \times 10^3$ | 1.389 | 0.005 | 0.000 | 0.001 | 1.396 | $1.571 \times 10^3$ |
| 3.00 GeV | $3.104 \times 10^3$ | 1.454 | 0.009 | 0.003 | 0.001 | 1.468 | $2.268 \times 10^3$ |
| 4.00 GeV | $4.104 \times 10^3$ | 1.498 | 0.013 | 0.007 | 0.001 | 1.520 | $2.937 \times 10^3$ |
| 8.00 GeV | $8.105 \times 10^3$ | 1.595 | 0.033 | 0.025 | 0.003 | 1.657 | $5.447 \times 10^3$ |
| 10.0 GeV | $1.011 \times 10^4$ | 1.624 | 0.044 | 0.037 | 0.004 | 1.709 | $6.635 \times 10^3$ |
| 14.0 GeV | $1.411 \times 10^4$ | 1.664 | 0.067 | 0.061 | 0.005 | 1.798 | $8.915 \times 10^3$ |
| 20.0 GeV | $2.011 \times 10^4$ | 1.704 | 0.104 | 0.101 | 0.007 | 1.917 | $1.214 \times 10^4$ |
| 30.0 GeV | $3.011 \times 10^4$ | 1.745 | 0.171 | 0.181 | 0.010 | 2.108 | $1.712 \times 10^4$ |
| 40.0 GeV | $4.011 \times 10^4$ | 1.773 | 0.241 | 0.268 | 0.014 | 2.298 | $2.166 \times 10^4$ |
| 80.0 GeV | $8.011 \times 10^4$ | 1.834 | 0.546 | 0.656 | 0.027 | 3.065 | $3.669 \times 10^4$ |
| 100. GeV | $1.001 \times 10^5$ | 1.852 | 0.708 | 0.867 | 0.034 | 3.462 | $4.283 \times 10^4$ |
| 113. GeV | $1.135 \times 10^5$ | 1.863 | 0.817 | 1.008 | 0.038 | 3.727 | *Muon critical energy* |
| 140. GeV | $1.401 \times 10^5$ | 1.880 | 1.038 | 1.299 | 0.047 | 4.266 | $5.322 \times 10^4$ |
| 200. GeV | $2.001 \times 10^5$ | 1.909 | 1.556 | 1.985 | 0.067 | 5.518 | $6.557 \times 10^4$ |
| 300. GeV | $3.001 \times 10^5$ | 1.942 | 2.438 | 3.129 | 0.100 | 7.611 | $8.095 \times 10^4$ |
| 400. GeV | $4.001 \times 10^5$ | 1.965 | 3.349 | 4.316 | 0.134 | 9.766 | $9.252 \times 10^4$ |
| 800. GeV | $8.001 \times 10^5$ | 2.022 | 7.105 | 9.182 | 0.270 | 18.581 | $1.217 \times 10^5$ |
| 1.00 TeV | $1.000 \times 10^6$ | 2.040 | 9.032 | 11.672 | 0.339 | 23.086 | $1.314 \times 10^5$ |
| 1.40 TeV | $1.400 \times 10^6$ | 2.068 | 12.891 | 16.635 | 0.480 | 32.076 | $1.460 \times 10^5$ |
| 2.00 TeV | $2.000 \times 10^6$ | 2.098 | 18.787 | 24.209 | 0.694 | 45.792 | $1.616 \times 10^5$ |
| 3.00 TeV | $3.000 \times 10^6$ | 2.133 | 28.623 | 36.793 | 1.061 | 68.612 | $1.793 \times 10^5$ |
| 4.00 TeV | $4.000 \times 10^6$ | 2.158 | 38.581 | 49.509 | 1.433 | 91.684 | $1.919 \times 10^5$ |
| 8.00 TeV | $8.000 \times 10^6$ | 2.220 | 78.696 | 100.619 | 2.974 | 184.510 | $2.220 \times 10^5$ |
| 10.0 TeV | $1.000 \times 10^7$ | 2.240 | 98.895 | 126.306 | 3.764 | 231.207 | $2.317 \times 10^5$ |
| 14.0 TeV | $1.400 \times 10^7$ | 2.271 | 139.183 | 177.563 | 5.385 | 324.404 | $2.462 \times 10^5$ |
| 20.0 TeV | $2.000 \times 10^7$ | 2.304 | 199.938 | 254.774 | 7.868 | 464.886 | $2.616 \times 10^5$ |
| 30.0 TeV | $3.000 \times 10^7$ | 2.342 | 301.179 | 383.215 | 12.155 | 698.894 | $2.790 \times 10^5$ |
| 40.0 TeV | $4.000 \times 10^7$ | 2.370 | 402.775 | 511.951 | 16.541 | 933.639 | $2.914 \times 10^5$ |
| 80.0 TeV | $8.000 \times 10^7$ | 2.438 | 809.119 | 1027.254 | 34.837 | 1873.651 | $3.210 \times 10^5$ |
| 100. TeV | $1.000 \times 10^8$ | 2.461 | 1012.410 | 1285.140 | 44.280 | 2344.293 | $3.305 \times 10^5$ |