

For Hydrogen-like atoms:

Energy levels (relative to a “just free” $E=0$ electron):

$$E_n = -\frac{mk^2e^4}{2\hbar^2} \frac{Z^2}{n^2} \approx -\frac{13.6 \cdot Z^2}{n^2} \text{ eV} \quad (\text{where } \hbar \equiv h/2\pi)$$

Radius of orbit:

$$r_n = \left(\frac{h}{2\pi}\right)^2 \frac{1}{mke^2} \frac{n^2}{Z} = (0.0529 \text{ nm}) \frac{n^2}{Z}$$