

Energy

Average Distance of Electron from Nucleus
($|z| = a_0$)

Classical Turning Point
($|z| = 2a_0$)

$V = 0 \rightarrow$ distance along z axis

$$V = -\frac{1}{2} \frac{e^2}{a_0}$$

energy of ground state

$$(E = -\frac{1}{2} e^2 / a_0)$$

$$V = -\frac{e^2}{a_0}$$

Potential energy ($V = e^2 / r$)

