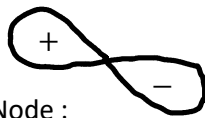
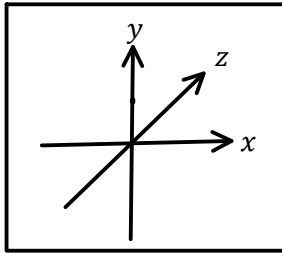


C11 - 5.1 - Orbitals/Energy/Hybridization/Waves

$$E = mc^2$$

3 dimensions



Node :
-Point where electron cannot be located.
-More Nodes, higher energy

Heisenberg's Uncertainty Principle : We can't know both the position and speed of a particle with perfect accuracy; the more we know a particle's position, the less we know about its speed and vice versa.

$$\Delta x \Delta p \geq \frac{h}{4\pi}$$

$$h = 6.63 \times 10^{-34} \text{ Js}$$

x : position

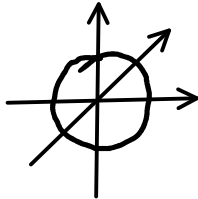
p : momentum

h : plank's constant

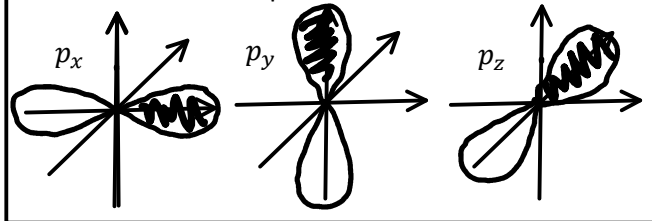
$$E = hf$$

$$v = \lambda f$$

s-orbital

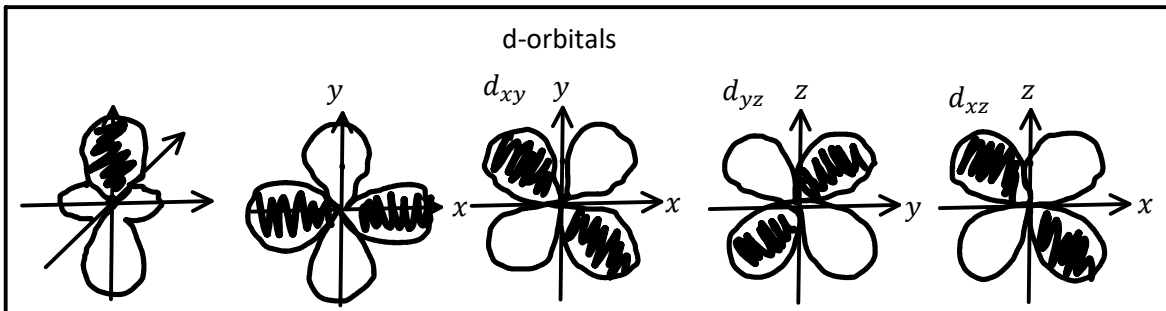


p-orbitals



3 Dimensional Bulbs

d-orbitals



f-orbitals ...

