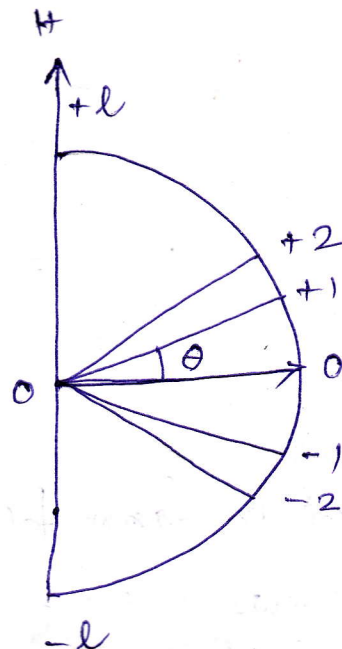
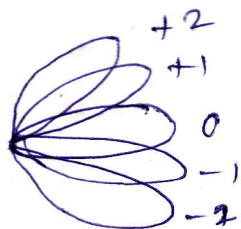


Magnetic Quantum Number :

Zeeman



Orientation of the plane of the orbit in a magnetic field.



$$m_l: 0, \pm 1, \pm 2, \pm 3 \dots \pm l$$

$$m_l = (2l+1)$$

$$m_{er} = \frac{m_l \hbar}{2\pi}$$

$$m_l = l \cos \theta$$

θ = angle of orientation

(n+1) →

[For the same values of (n+1) for a number of orbitals, the energy increases with the increase of n

$$3d < 4p < 5s; \quad 4f < 5d < 6p$$

$$(n+1) : 5, 5, 5; \quad 7, 7, 7 \quad (\text{lighter elements } Z < 20).$$

$$n : 3 < 4 < 5; \quad 4 < 5 < 6$$