

5) Pfund series: - This series is produced when electron jumps from higher orbits to fifth stationary orbit ($n_f = 5$). Thus for this series,

$$\bar{\nu} = R \left(\frac{1}{5^2} - \frac{1}{n_i^2} \right) \text{ where, } n_i = 6, 7, 8, \dots$$

The last three series are found in infra-red region.

The series spectrum of hydrogen atom is represented in fig. (2).

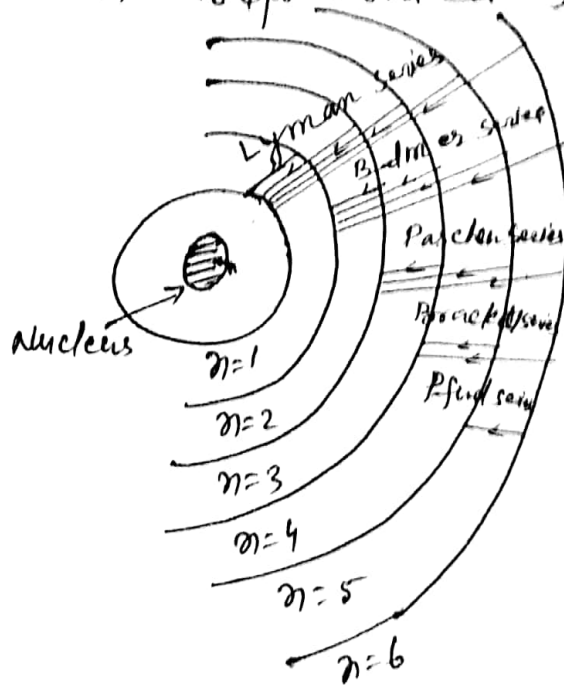


Fig. 2 (a) orbit diagram.

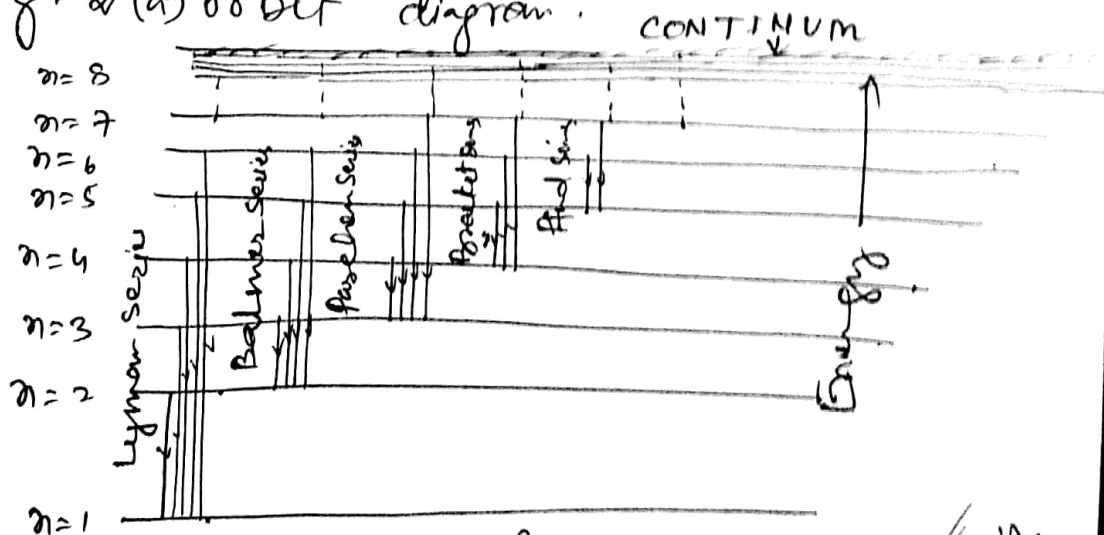


Fig. 2 (b) Energy level diagram.

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