

Chapter 02

STRUCTURE OF ATOM

Spectra:-

- The arrangement of different radiations in their increasing order of wave lengths is known as spectra.

Classification of spectra:-

- Based on the method of collection, spectra is classified as, Absorption and emission spectra.

Absorption spectra:-

- The missing wavelengths after absorption of radiation by sample of substance are recorded.
- It gives dark lines on white back ground

Emission spectra:-

- A sample of substance is heated and the radiation are collected when the absorbed radiations are emitted back.
- It gives white lines on dark back ground

- Spectra is also classified as line, band and continuous spectra based on pattern of wave lengths.

Line spectra:-

- If spectra contains a series of discrete lines it is called “Line spectra”.

Ex: Spectra of atoms.

Band spectra:-

- If spectra contains closely spaced lines leading to band like appearance, it is called ‘Band spectra’.

Ex: Spectra of molecules.

Continuous spectra:-

- If spectra contains all the lines in certain range, it is called ‘Continuous spectra’.

Ex: Rainbow.

