

Absorptivity (a)

It was known as Extinction coefficient or specific extinction.

It is denoted by (a)

Absorptivity - it is ratio of absorbance to the product of length of optical path (b) and concentration (c) of sample

$$\text{i.e. } a = \frac{A}{b \times c} = \frac{\text{Absorbance}}{\text{path length} \times \text{conc.}}$$

absorptivity is also called specific absorbance

Because path length (b) is 1 cm and conc. in 1 gm/lit.
(unit) (unit)

Absorptivity measure ability of sample to absorb light.

path length (b)

it is denoted by letter 'd', or 'l' i.e. 'l' or 'd'

it is internal diameter of cell. [small test tube]

Fundamental laws of photometry :-

When light (monochromatic or heterochromatic) is incident upon homogeneous medium.

The incident light of radiant power (P_0)

P_0 = Radiant power of incident light

P_r = Radiant power of reflected light

P_a = Radiant power of absorbed light

P = Radiant power of transmitted light.

$$\text{i.e. } P_0 = P_a + P + P_r \quad \text{i.e. } P_0 = P_r + P_a + P$$

$$P_0 = P_a + P \quad \text{When } P_r \text{ is very small (4\%)}$$

