B.Sc Chemistry(Part-II)
Physical Chemistry

Paper-III

Lecture-02

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Viscosity

- Tendency of a liquid to keep from flowing is called **Viscosity**

  Ex: Thick liquid have high viscosity – Corn Syrup,Honey,molasses, tar, glycerin

  Thin liquid have low viscosity-Vinegar, Water,air, petrol

- It is internal Resistance of a liquid to flow under an applied force
- High viscosity take longer to flow
- Greater the viscosity, slower the liquid moves
- Denoted by μ

Types of Viscosity

- Two kinds of viscosity commonly reported:

1) kinematic

2)Dynamic

The Kinematic viscosity is the relationship between viscous and inertial forces in a fluid.

Dynamic viscosity is the relationship between the shear stress and the shear rate in a fluid.

The SI unit of dynamic viscosity is the pascal-second (Pa. ... s^{-1} = 0.1 Pa. · s)

It was named after Jean Léonard Marie Poiseuille.

It is commonly expressed, particularly in ASTM standards, as centipoise (cP) since the latter is equal to the SI multiple millipascal seconds (mPa.