

## Experimental methods of Rate studies

Many physical and chemical methods are available for studying the reaction rate:

(1) **Volume or Pressure measurement:** The reaction rate can be followed by measuring the volume or pressure change provided one or more of the components are gases.

(2) **Titrimetry:** The reaction course can be followed using acid-base or oxidation-reduction titration if at least one of the components in the reaction is an acid or a base or an oxidizing agent or a reducing agent.

(3) **Conductometry or Potentiometry:** It is a suitable method based on conductivity or potentiometric measurements if one or more of the ions are present or produced in the reaction.

(4) **Spectrophotometry :** When a component of the reaction has a strong absorption band at a particular

Wavelength region, spectrophotometers could be used for measuring the reaction rate.

(5) **Polarimetry:** The reaction rate can be studied from the measurements of optical rotation when at least one of the component of a reaction is optically active.