

## Chemical Reactions & Equations

### Indication of Chemical Reaction

#### Indication

The indications which tell us whether the reaction has occurred or not are as follows:-

- Change in temperature: When a reaction occurs, the mixture or solution cools down or heats up.
- Change of colour: when a colored solution changes its colour or colourless solution shows some colouration, then we can say that reaction has occurred. For example while making dibenzylideneacetone upon mixing colorless substrates we get a bright yellowish product.
- Emission of gas: This means that when a reaction occurs, the gas or fumes are formed in the reaction which gets liberated or evolved. For example upon reacting sodium with alcohol, hydrogen gas gets generated.
- Formation of precipitates: If we mix two liquids, and formation of precipitate occurs at the bottom of the beaker or test tube, this means we had a reaction. For example when sodium chloride solution is mixed with silver nitrate, we get a white precipitate.
- Change in the pH: When two solutions of different pH are mixed together and the resultant solution has completely different pH, this means that the reaction has taken place