

## EXPERIMENT - 1

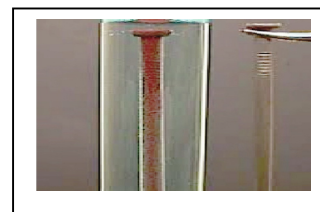
### CHEMICAL DISPLACEMENT REACTION

**Aim** : To observe the chemical displacement reaction.

**Required** : Test tube, small beaker, water, copper sulphate, new iron nails-2, sand paper

**Description**: In which chemical reaction, one element displaces the other element from its compound, that chemical reaction is called chemical displacement reaction.

**Example** :  $\text{Zinc} + \text{Silver nitrate} \rightarrow \text{Zinc nitrate} + \text{Silver}$



### **Procedure** :

1. Take two iron nails. (Scratch them with sand paper if needed)
2. Take 20 gm of copper sulphate in to a small beaker. Add 100 ml of water. Copper sulphate aqueous solution is formed.
3. Take 10 ml of copper sulphate in to the test tube.
4. Dip one iron nail in to the copper sulphate solution in the beaker.
5. Keep the beaker undisturbed for 15 min.
6. Compare the dipped iron nail with the new iron nail.
7. Compare the copper sulphate solution in beaker with solution in test tube.

### **Observation** :

- ❖ The iron nail in the copper sulphate solution coated with brown colour.
- ❖ The colour of copper sulphate solution in test tube is blue. Bt the colour of solution in beaker turns into pale green and then fades.
- ❖ Due to reaction between iron nail and copper sulphate, iron displaces copper from copper sulphate. The copper coated on the iron nail.
- ❖  $\text{Iron} + \text{Copper sulphate} \rightarrow \text{Copper} + \text{Iron sulphate}$
- ❖ This is chemical displacement reaction.

### **Precautions** :

- ❖ Do not make the solution disturbed until the reaction takes place.

### **Result** :

- ❖ Observed the chemical displacement reaction.