

Unit 3: Reactivity series and Electrochemistry**Reactivity series**

The series obtained by arranging some of the metals in the decreasing order of their reactivity is known as the reactivity series.

Potassium	K
Sodium	Na
Calcium	Ca
Magnesium	Mg
Aluminium	Al
Zinc	Zn
Iron	Fe
Nickel	Ni
Tin	Sn
Lead	Pb
Hydrogen	H
Copper	Cu
Silver	Ag
Gold	Au

Hydrogen is also included in this series for the sake of comparison of chemical reactivity.

Reactivity series and displacement reactions

Prepare some CuSO_4 solution in a beaker and dip a Zn rod in it.

Observe the changes after sometime.

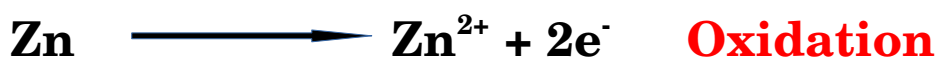
Cu get deposited at the Zn rod.

The intensity of the colour of the solution changes.

The chemical reaction taking place here



Cu gets displaced by Zn.



Metals having high reactivity displace the metals having less reactivity from their salt solution. Such chemical reactions are known as displacement reactions. Metals with higher reactivity get oxidised and those with lesser reactivity get reduced. Displacement reactions are redox reactions.

Questions

1. Which among the following is the highest reactive metal?

(Calcium, Magnesium, Sodium)

2. Name three metals which occupies bottom position of reactivity series ?

3. Explain displacement reaction with proper example ?

4. Observe the picture given below. Based on the reactivity series , predict whether it undergo displacement reaction ?

