

Topic 3

Metals: Extraction of metals

Summary

1

- During the extraction of metals, metal ions are reduced forming metal atoms.

2

- The method used to extract a metal from its ore depends on the position of the metal in the reactivity series.

3

- Equations can be written to show the extraction of metals.

4

- Methods used are:
 - heat alone (for extraction of Ag, Au and Hg);
 - heating with carbon or carbon monoxide (for extraction of Cu, Pb, Sn, Fe and Zn);
 - electrolysis (for extraction of more reactive metals including aluminium).

5

- Electrolysis is the decomposition of an ionic compound into its elements using electricity.

6

- A DC supply must be used if the products of electrolysis are to be identified.

7

- Positive ions gain electrons at the negative electrode and negative ions lose electrons at the positive electrode.

