

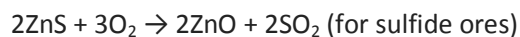
Question #57571, Chemistry / Other |

Explain the processes which are used for the extraction of metals from carbonates and sulphide ores.

Answer:

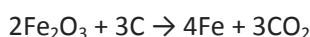
The first step is needed to concentrate the ores that involves the separation of metal-containing compounds from unwanted rocky materials. They can be concentrated by using a foaming agent in water (froth flotation). The metal materials are picked up with foam and are separated in the top of the bath, while the rocky things remain in the bottom.

The second part is roasting. This process is an additional purification of ores, which involves interaction of ores with oxygen or a simple decomposition at high temperature:

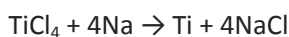


The final stage is an extraction of metals from their oxides obtained in the previous step. This process is called reduction:

- a) Carbon reduction:



- b) Reduction with more reactive metal:



- c) Electrolysis – the extraction of metal using the electricity:

