KITE VICTERS ONLINE CLASS - 04-11-2020

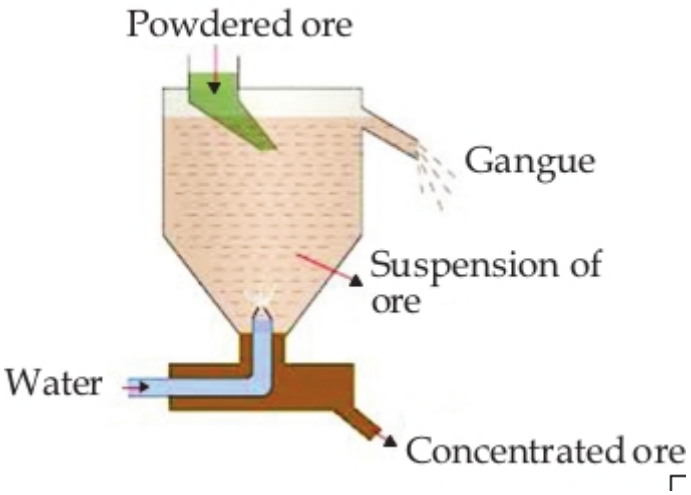
Chemistry- X- Unit-4. Class - 21

Production of metals

Concentration of ores

The process of removing the impurities from the ore obtained from the earth's crust is termed concentration of the ore. There are different methods of concentration.

1. Levigation or hydraulic washing

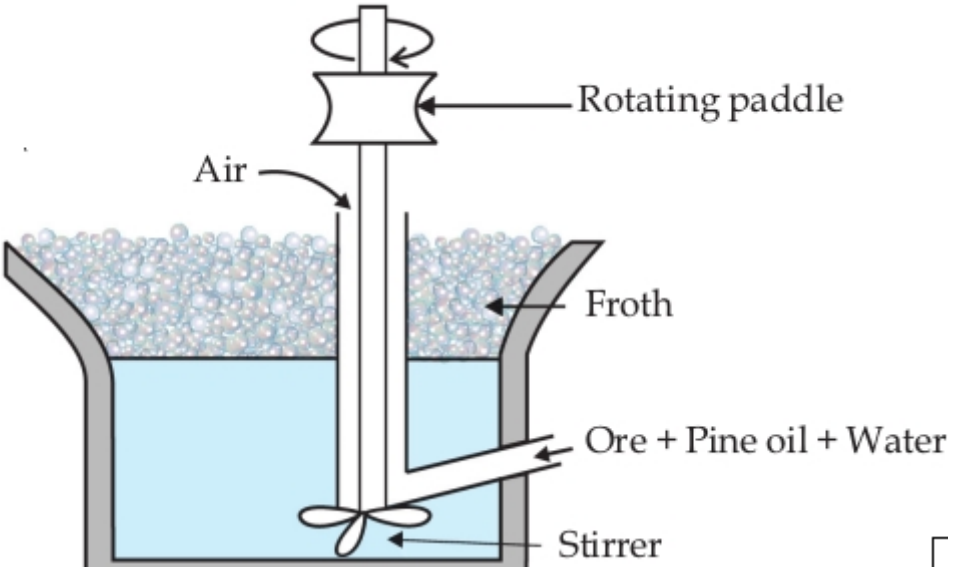


When the impurities are lighter and the ore particles are heavier, the lighter impurities are removed by washing in a current of water.

Example:

concentration of oxide ores, concentration of the ores of gold.

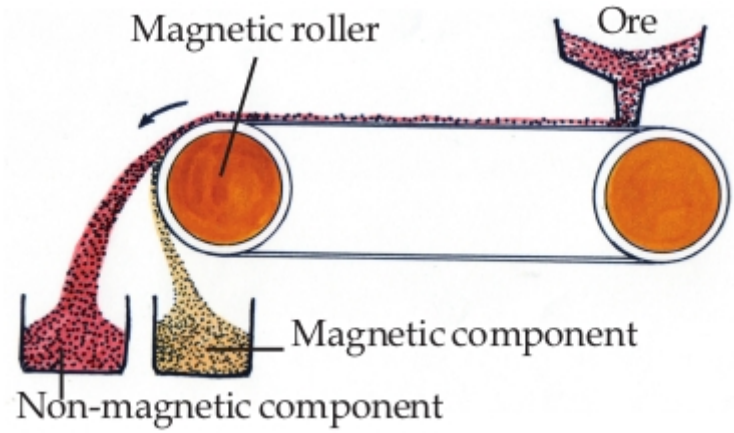
2. Froth floatation



This process is used when the impurities are heavier and the ore particles are lighter .

Eg: Sulphide ores are usually concentrated by this method.

3. Magnetic separation



If either the ore or the impurity has magnetic nature, concentration is done by this method.

Eg: This method is used for the concentration of magnetite, ore of iron , To separate iron tungstate, the magnetic impurity from tin stone , the non-magnetic ore of tin.

Leaching

On adding the ore to a suitable solution, a chemical reaction takes place and the ore dissolves. The insoluble impurities are filtered off. The pure ore is separated from the filtrate by a chemical reaction

Eg: Bauxite, the ore of aluminium is concentrated by this method

Questions

1. Name the method of concentration of sulphide ores ?

(Magnetic separation, Froth floatation ,Leaching)

2. Which method of concentration is used to extract aluminium from bauxite ?

3.When the impurities are lighter and the ore particles are heavier, we can use ..... method.

(Levigation , Magnetic separation, Froth floatation ,Leaching)

4 .Among the following , which one is the ore of iron ?
(Calamine ,Cuprite, Magnetite ,Bauxite)

****