

Ores Ores are such metallic minerals from which one or more metals can be extracted economically. Such metalliferous minerals or aggregates of metalliferous mineral together with the gangue are called as Ore deposits. For strategic minerals economics does not matter eg. Uranium Ores.

eg Chromite ($FeCr_2O_4$) is an ore of Chromium.

Haematite (Fe_2O_3) ore of 6 सोम Iron

Chalcopyrite ($CuFeS_2$) for Copper.

The term Ore deposit is usually used for accumulation of one type of Ore or mixed Ore at a place which can be used for

(Concept of Ore genesis, Distribution of Ore deposits - Global perspective)

7 प्रश्न - the metallurgy .

Ores may be simple or complex. When only one metal is extracted from an ore it is simple ore eg. Haematite, ~~Chalcopyrite~~ Bauxite etc.

Some other ores contain more than one metal and are used for their metallurgy such are called as complex ores. eg. Sphalerite, Galena, Chalcopyrite etc.

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The study of Ore is called as Ore Geology. The types, mode of occurrence, distribution and Properties of Ores are dealt in Ore geology.

Ore genesis:-

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The formation of Ores is called as Ore genesis. So, the process by which Ore develops are called as Ore genesis. Following are the processes of Ore genesis -

1. Magmatic Process

1. Magmatic Concentration Process
2. Sublimation
3. Evaporation
4. Sedimentation 10/25
5. Metamorphism
6. Oxidation and Supergene Sulfide Enrichment.
7. Mechanical Concentration process
8. Volcanogenic deposits
9. Bacterial deposits

Various processes develop different types of Ore deposits. eg. Magnetite ore deposits, Diamond deposit, Chromite deposits form mostly due to magmatic



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Concentration. Similarly
 Gold deposits - e.g.
 Kolar Goldfield, Diamonds
 deposit of Panna, Magnetite of
 Kiruna deposits -
 Banda Halimata Quartzite
 deposit of Singhbhum are
 product of sedimentation
 Sillimanite, Kyanite, Andalusite
 etc are metamorphic products.

Metallogenic provinces
 and Epoch -

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There are certain periods
 during which a metal deposit
 formed globally and are
 called as Metallogenic Epochs
 where as they are distributed
 to specific areas called as
 Provinces.