

Formation of Iron Ore Deposits

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Abstract

The following research investigates the genesis of iron ore deposits in the world. It describes several theories of ore genesis, and provides an example of an iron deposit in the world thought to be formed from the described theory. It also describes the occurrence of iron in meteorites. Some reasons for iron ore formation include magmatic segregation, hydrothermal processes, metamorphic processes, and banded iron formations. Magmatic segregation occurs when minerals in magma separate according to density and crystallize. Hydrothermal processes involve the deposition of minerals by water. Metamorphic processes involve a change in the composition of rocks into ore. Banded iron formations are layers of iron-rich minerals and iron-poor minerals.