

Elements

Metals

Non-metals

Physical Properties of Metals

- Malleable
- Ductile
- Good conductor of Heat and Electricity
- Sonorous
- Generally solids

Chemical Properties of Metals

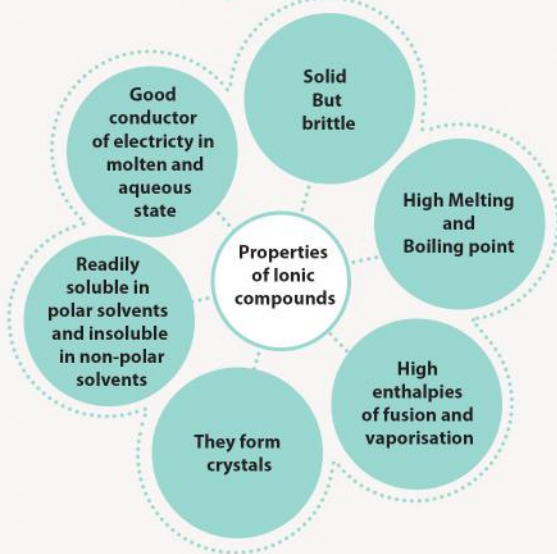
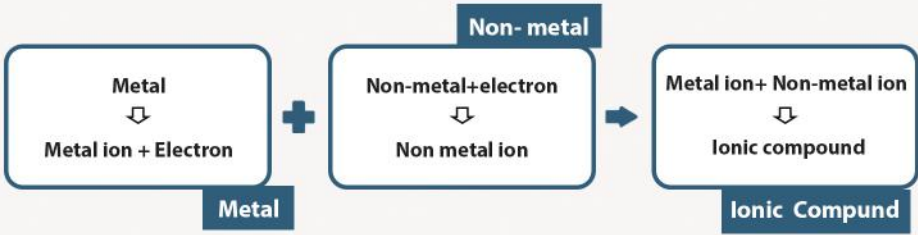
- Highly Electropositive
- Metal + Water \rightarrow Metal oxide + Hydrogen
- Metal + Air \rightarrow Metal oxides
- Metal + Acid \rightarrow Salt + Hydrogen
- Reactive metals displace less reactive metals from their salt

Physical Properties of Non-metals

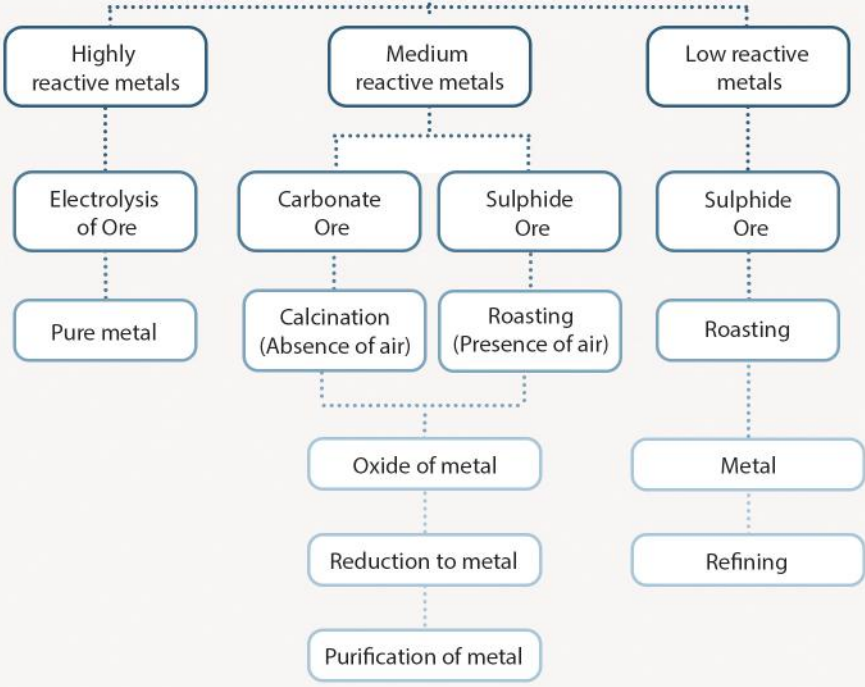
- Non-Malleable
- Non-Ductile
- Poor conductor of Heat and Electricity
- Can be Solids, Liquids or Gases

Chemical Properties of Non-metals

- Generally Electronegative
- Do not react with water
- Form ionic compounds with metals



Concentration of Ore



Corrosion

Metals on exposure to water / moisture / Acids tarnish due to formation of oxides on their surface

Prevention Of Corrosion

- Alloying**: Mixing Iron / steel with less reactive metals
- Galvanization**: Coating Iron / steel with zinc
- Electroplating**: Coating Iron by electrolytic deposition with chromium, silver or other metals