Elements

Metals Non-metals **Physical Properties Chemical Properties Physical Properties Chemical Properties** of Metals of Metals of Non-metals of Non-metals Highly Generally Malleable Non-Malleable Electropositive Electronegative Metal+Water Do not react Ductile Non-Ductile with water Metal oxide+Hydrogen Metal+ Air Good conductor of Form Ionic compounds Poor conductor of D Heat and Electricity Heat and Electricity with metals Metal oxides Metal+Acid Can be Solids, Sonorous Liquids or Gases Salt +Hydrogen Reactive metals Generally solids displace less reactive metals from their salt Solid But Non-metal conductor brittle of electricty in Metal ion+ Non-metal ion molten and Metal Non-metal+electron aqueous Û T Û **High Melting** state and Metal ion + Electron Non metal ion Ionic compound **Boiling point Properties** Readily of Ionic Metal **Ionic Compund** soluble in compounds polar solvents and insoluble in non-polar High solvents Concenteration enthalpies of Ore of fusion and vaporisation They form crystals ,..... Medium Highly Low reactive reactive metals reactive metals metals Corrosion Metals on exposure to water / moisture / Acids tarnish due to formation of oxides on their surface Electrolysis Carbonate Sulphide Sulphide of Ore Ore Ore Ore **Prevention Of Corrosion** Calcination Roasting Roasting Pure metal Alloying (Presence of air) (Absence of air) Mixing Iron /steel with less reactive metals

Metal

Refining

Galvanization
Coating Iron / steel with zinc

ElectroplatingCoating Iron by electrolytic deposition with

chromium, silver or other metals

Oxide of metal

Reduction to metal

Purification of metal