

METALLURGY

GLOSSARY:

- **Activity Series of Metals and Non metals:** An invaluable aid to predicting the products of replacement reactions.
- **Aluminothermy:** The exothermic chemical reactions, using aluminium as the reducing agent at high temperature.
- **Bayer's Process:** A method of producing alumina from bauxite by heating it in a sodium hydroxide solution.
- **Calcination:** The process of heating material in the absence of air.
- **Concentration:** The strength of a solution.
- **Crushing:** To press the material between opposing bodies, so as to break or injure.
- **Distillation:** The process of purifying a liquid by boiling it and condensing its vapors.
- **Electrode:** A conductor used to make electrical contact with some part of a circuit.

- **Electrolyte:** A solution, containing electricity.
- **Electrolytic cell:** A cell containing an electrolyte, in which an electrochemical reaction produces an electromotive force.
- **Electrolytic Reduction:** The process of reducing the oxides of metals to their pure form as metals.
- **Electrolytic refining:** The process of purifying metal plates suspended as anodes in an electrolytic bath.
- **Electromagnetic Separation:** The process, involving the separation of magnetic ore and non magnetic impurities.
- **Froth floatation:** A process for recovery of particles of ore or other material, in which the particles adhere to bubbles and can be removed as a part of the froth.
- **Gravity Separation:** The separation of 2 immiscible phases by allowing the denser phase to settle out under the influence of gravity.
- **Liquation:** A metallurgical method for separating metals from an ore or alloy.
- **Metallurgy:** The science, dealing with procedures used in extracting metals from their ores and purifying them.

- **Metals:** A chemical element, having a good conductor of both electricity and heat, forming cations and ionic bonds with non-metals.
- **Mineral:** A naturally occurring solid chemical substance, forming through geological processes.
- **Ore:** A mineral, containing metals.
- **Oxidation:** A reaction, in which the atoms in an element lose electrons and the valence of the element.
- **Poling:** The act of supporting or propelling, by means of a pole or poles.
- **Reduction:** A reaction, in which the atoms in an element get electrons.
- **Reverberatory Furnace:** A furnace, in which the material is being heated indirectly by flames, directed at the roof and walls of the furnace.
- **Roasting:** The process of heating material in the presence of air.
- **Valency:** The phenomenon of forming chemical bonds.