The Complete Book on Non-Ferrous and Precious Metals with Electroplating Chemicals

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Non-ferrous metals are those which don’t have any iron content. These are specified for structural applications requiring reduced weight, higher strength, nonmagnetic properties, higher melting points, or resistance to chemical, atmospheric corrosion and also for electrical and electronic applications.

A precious metal is a rare, naturally occurring metallic chemical element of high economic value. Although they have industrial uses, they are better known for their uses in art, jewellery and coinage. Depending on the end use, metals can be simply cast into the finished part, or cast into an intermediate form, such as an ingot, then worked, or wrought, by rolling, forging, extruding, or other deformation process.

Electroplating is a procedure that uses electrolysis to apply a thin layer of a metal over the surface of another metal. Electroplating chemicals are used to change the surface properties of an object such as abrasion and wear resistance, corrosion protection, lubricity, etc. This chemical is widely demanded in automotive, electronics, telecommunications, aerospace and precision engineering industries. This handbook explains different extraction and production processes with flow diagrams of various non ferrous and precious metals.

Major contents of the book are Silver, Gold, Copper, Complex salts of copper, silver and gold, magnesium, chromium, platinum group of metals, nickel, zinc, lead, aluminium, mercury, cobalt, sodium, sodium chloride, soda ash, sodium sulfate, glauber salt, hydrochloric acid, sodium silicate, sodium sulfides, sodium thiosulfate, sodium bisulfate, anhydrous, sodium hyposulfite, liquid chlorine, hydrides of boron, silicon, sulfuric acid, nitric acid, ammonium nitrate, hydrazine, hydrogen cyanide, melamine, amines, aniline, isocyanates, phosphorus, tin, ferroalloys, manganese, bismuth, cerium, phosphoric acid, tungsten, niobium and tantalum etc.

It will be a standard reference book for professionals, entrepreneurs, engineers, those studying and researching in this important area and others interested in the field of non ferrous, precious metals and electroplating chemicals.

Alloying
Deoxidation and Desulphurization
Modifying Structure of Graphite in Cast Irons
Pyrotechnics and Photography
Cathodic Protection
Structural Uses
Magnesium Ores
Methods of Magnesium Extraction
Magnesium from Sea-Water
Pidgeon Process
Equipment and Operation
Reaction Mechanism
Energy Required for the Pidgeon Process
Magnotherm Process
Magnesium Production in India
NML Process
CECRI Process
Magnesium
Dow Process
Electrolysis of Magnesium Chloride
6. CHROMIUM
Uses
Occurrence
Metal Extraction
Electrolytic Chromium
Chrome Alum Process
Chromic Acid Process
7. PLATINUM GROUP OF METALS
Extraction of Platinum Group Metals
Compounds of Platinum
8. NICKEL
Uses
Extraction of Nickel by Pyrometallurgy
Extraction from Sulphide ores
Nickel Sulphide Ore Processing at Sudbury (Canada)
Smelting of Nickel Concentrate
Carbonyl Process for Refining Nickel
Electrolytic Refining of Nickel
Extraction of Nickel from Oxide Ores
Pyrometallurgical Processing
DTA (Differential Thermal Analysis) of Lateritic Ores
Selective Nickel Reduction
Reduction Smelting
Ferronickel Production
Matte Smelting
Pyrometallurgical Processing followed by Hydrometallurgy
Ammoniacal Leaching
Other Leachants
Pyrometallurgical Processing followed by Carbonylation
Hydrometallurgy
Hydrometallurgy of Nickel Sulphide Concentrates
Other Metals from Sulphide Ores
Compounds of Nickel

9. ZINC
Uses
Extraction of Zinc
Sources of Zinc
Pyrometallurgical Extraction of Zinc
Horizontal Retort Reduction
Vertical Retort Reduction
Hydrometallurgical Extraction of Zinc
Imperial Smelting Process (ISP)
Production of Other Metals by ISP
Lead Recovery
Precious Metals Recovery
Copper Recovery
Arsenic, Antimony, and Bismuth Recovery
Tin Recovery
Cadmium Recovery
Zinc from Lead Slags by Slag Fuming
Production of Zinc in India
HZL Debari Plant
Treatment of Complex Sulphides of Lead, Copper and Zinc
Gravity Concentration
Differential Flotation
Retort Distillation
Electrolysis
Liquation
Rectification
Lead Blast Furnace Smelting
Selective Roasting
Reverberatory Smelting
Hydrometallurgical Treatment of Complex Sulphides
Solvent Extraction
Compounds of Zinc and Cadmium
10. LEAD
Uses
Extraction of Lead
Occurrence
Treatment of Ore and Production of Metal
Treatment of Base Bullion
Drossing
Parke’s Process for Desilverization of Lead
Dezincing
Debismuthizing
Electrolytic Refining
Modern Developments in Lead Smelting
Outokumpu Flash Smelting
Direct Smelting in Converter
Flash Smelting with Oxygen
KIVCET Process
WORCRA Process
Q-S Process
TBRC (Top-Blown Rotary Converter) Smelting
Production of Lead in India
Tundoo Plant

Tundoo Blast Furnace
Lead Refining
Compounds of Lead
1. Lead monoxide or litharge PbO
2. Red lead, Pb_3O_4
3. Lead dioxide, PbO_2
4. Basic Lead Carbonate or White Lead, $Pb(OH)_2.2PbCO_3$—Dutch Process, Carter's Process, Electrolytic Process
11. ALUMINIUM
Uses
Aluminium Ores
Extraction of Aluminium
Bayer Process for Alumina Production
Factors Affecting Bayer Process
Hall-Heroult Process
Decomposition Potential of Al_2O_3 Dissolved in Cryolite
Influence of Hydrogen or Methane Injection at Anode
Actual Decomposition Potential
Electrolytic Reduction Cell
Cell Operation
Role of Cryolite in Electrolysis
Theory 1
Theory 2
Factors Influencing Electrolysis
Electrolytic Refining of Aluminium
Methods of Treating Low-Grade Ores
Lime Sinter Process
Deville-Pechiney Process
Serpeck Process
Production of Aluminium in India
The Alumina Plant at Hindalco
The Reduction Plant at HINDALCO
Environmental Considerations in Aluminium Production
Newer Processes for Aluminium Production
ALCOA Process
Toth Process
ALCAN Process
Properties of Aluminium: Physical
Compounds of Aluminium
Ceramics Industry
12. MERCURY
Extraction of Mercury
Compounds of Mercury—Experimental evidences to show that mercurous ion is Hg_2^{2+}
13. COBALT
Compounds of Cobalt
14. SODIUM
Production of Sodium
Downs's Process
15. SODIUM CHLORIDE
16. SODA ASH
Soda Ash, The Commercial Sodium Carbonate
Solvay Process
Soda Ash from Other Sources

Soda Ash Related Products
17. SODIUM SULFATE
Salt Cake
18. GLAUBER SALT
19. HYDROCHLORIC ACID
20. SODIUM SILICATE
Bormine and Bromides
21. SODIUM SULFIDES
22. SODIUM THIOSULFATE
23. SODIUM BISULFITE, ANHYDROUS
24. SODIUM HYPOSULFITE (HYDROSULFITE)
Caustic Soda and Chlorine
Electrolysis of Brine
The Electrolytic Cell
Purification of the Salt Solution
Diaphragm Cells
Concentration of the Caustic Liquor
The Mercury Cell
Hydrogen Disposal
Other Processes for the Production of Chlorine
25. LIQUID CHLORINE
Bleaches
26. HYDRIDES OF BORON
Historical
Methods of Preparation
Properties
Chemical
Oxyacids of Boron
Orthoboric Acid, H_3BO_3
Properties
Borax, $Na_2B_4O_7.10H_2O$ Preparation
Properties
Perboric Acid and Perborates
Preparation
Properties
Structure
Industrial Applications
27. SILICON
Hydrides of Silicon
Silicon Tetrahydride, Silicane, or Monosilane, SiH_4
Preparation
Properties
Silicoethane, Disilicane, or Disilane, Si_2H_6
Properties
Silicopropane, Trisilicane or Trisilane, Si_3H_8
Preparation
Properties
Silicobutane, Tetrasilicane or Tetrasilane, Si_4H_{10}
Silicopentane, Si_5H_{12} and Silicohexane, Si_6H_{14}
Silico-acetylene, $(Si_2H_2)_n$
Structural Considerations
Short Note on Silicones
Structure of Silicates

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