

- Part 1 Principles of Operation
- Chapter 1 Basic Concepts
- Chapter 2 Electrochemical Principles and Reactions
- Chapter 3 Factors Affecting Battery Performance
- Chapter 4 Battery Standardization
- Chapter 5 Battery Design
- Chapter 6 Selection and Application of Batteries
- Part 2 Primary Batteries
- Chapter 7 Primary Batteries--Introduction
- Chapter 8 Zinc-Carbon Batteries (Leclanche and Zinc Chloride Cell Systems)
- Chapter 9 Magnesium and Aluminum Batteries
- Chapter 10 Alkaline-Manganese Dioxide Batteries
- Chapter 11 Mercuric Oxide Batteries
- Chapter 12 Silver Oxide Batteries
- Chapter 13 Zinc/Air Batteries--Button Configuration
- Chapter 14 Lithium Batteries
- Chapter 15 Solid-Electrolyte Batteries
- Part 3 Reserve Batteries
- Chapter 16 Reserve Batteries--Introduction
- Chapter 17 Magnesium Water-Activated Batteries
- Chapter 18 Zinc/Silver Oxide Reserve Batteries
- Chapter 19 Spin-Dependent Reserve Batteries
- Chapter 20 Ambient-Temperature Lithium Anode Reserve Batteries
- Chapter 21 Thermal Batteries
- Part 4 Secondary Batteries
- Chapter 22 Secondary Batteries--Introduction
- Chapter 23 Lead-Acid Batteries
- Chapter 24 Valve Regulated Lead-Acid Batteries
- Chapter 25 Iron Electrode Batteries
- Chapter 26 Industrial and Aerospace Nickel-Cadmium Batteries
- Chapter 27 Vented Sintered-Plate Nickel-Cadmium Batteries
- Chapter 28 Portable Sealed Nickel-Cadmium Batteries
- Chapter 29 Portable Sealed Nickel-Metal Hydride Batteries
- Chapter 30 Propulsion and Industrial Nickel-Metal Hydride Batteries
- Chapter 31 Nickel-Zinc Batteries
- Chapter 32 Nickel-Hydrogen Batteries
- Chapter 33 Silver Oxide Batteries
- Chapter 34 Rechargeable Lithium Batteries (Ambient Temperature)
- Chapter 35 Lithium-Ion Batteries
- Chapter 36 Rechargeable Zinc/Alkaline/Manganese Dioxide Batteries
- Part 5 Advanced Batteries for Electric Vehicles and Emerging Applications
- Chapter 37 Advanced Batteries for Electric Vehicles and Emerging Applications -- Introduction
- Chapter 38 Metal/Air Batteries

- Chapter 39 Zinc/Bromine Batteries
- Chapter 40 Sodium-Beta Batteries
- Chapter 41 Lithium/Iron Sulfide Batteries
- Part 6 Portable Fuel Cells
- Chapter 42 Portable Fuel Cells - Introduction
- Chapter 43 Small Fuel Cells (Less Than 1000 Watts)
- Part 7 Appendices Definitions Standard Reduction Potentials Electrochemical Equivalents of Battery Materials Standard Symbols and Constants Conversion Factors
- Bibliography Battery Manufacturers and R&D Organizations