COOLING WATER TREATMENT: PRINCIPLES AND PRACTICE
COLIN FRAYNE
512 pages, Illustrations
Hardcover
$ 225.00
£ 136.00
ISBN 978-0-8206-0370-4

This comprehensive book is the only one that addresses theory, practice, management, purchasing and marketing of cooling water systems in one volume.

The approach of this essential reference is practical and international, and it is based on 30 years of professional experience.

Profusely illustrated, this handbook will enable professionals to understand the factors that may interfere and compromise the optimal functioning of cooling water systems, used in every industrial and commercial premise in the world (e.g., industrial plants, large office towers; hospitals, hotels, etc.).

Maintenance of cooling water systems is based on specialty chemicals, and this invaluable handbook contains information on chemical formulations and programming, considered “taboo” and never published before.

Scaling, corrosion, micro-biological deposits, among others, interfere with the transfer of heat, a key element to achieve a cost-effective operation of cooling water systems, examined in chapters on Cooling System & Heat Exchange Essentials; Make-Up Water Sources & Their Impurities; and Corrosion, Fouling & Deposition.

Different treatments, pre-treatment equipment, devices; application of different chemicals; and computer software programs are analyzed in the chapters on Chemical Treatments & Programs for Cooling Water Systems; and Microbiological Control Programs.

Specially important to decision-makers, water treatment field personnel, and cooling water systems marketing personnel are the chapters on Buying and Selling Cooling Water Programs; Surveys, Inspections and Cooling Water Program Selection.

The chapters on Managing Cooling Systems and Monitoring and Control, address the importance of improving and maintaining the quality of the cooling water systems process and of optimizing operating costs.

An indispensable source for: Chemical, Plant, Maintenance, Operations, Process and Utility Services Engineers; specialty chemicals companies personnel and cooling water systems marketing personnel.
CONTENTS: Cooling System & Heat Exchange Essentials; Make-up Water Sources & their Impurities; Make-up Water Pre-Treatment Processes; Corrosion, Fouling & Deposition; Chemical Treatments & Programs for Cooling Water; Micro-biological Control Programs; Buying and Selling Cooling Water Programs; Surveys, Inspections & Cooling Water Program Selection; Managing Cooling Water Programs; Monitoring & Control; Appendix 1: Useful Data; Appendix 2. Glossary of Terms; Appendix 3. Summary of Charts & Notes for Field Use; References; Index.

BOILER WATER TREATMENT: PRINCIPLES AND PRACTICE
COLIN FRAYNE
pages, 400 (Vol 1), 548 (Vol 2)
Illustrations
Hardcover
$ 125.00 Each Volume
£ 75.00 Each Volume

Accurate chemical water treatment and skillful maintenance are key elements to attain optimal boiler operation. Boiler Water Treatment: Principles and Practice analyzes the fundamentals of the mechanical operation of boilers, together with the applied chemistry required to achieve waterside cleanliness and cost-effective and optimal boiler operation.

CONTENTS:
Marketing Boiler Water
Steam Generation
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Steam Cycle Waterside Problems
Pre and Post-Boiler Treatment
Chemical Inhibitors and Treatments
High Pressure Boilers: Water Treatment Programs
Lower Pressure Boilers: Water Treatment Programs
Fire-Side Problems and Solutions
Boiler Plant Support Services
Useful Data
Glossary of Terms
Summary of Charts and Notes for Field Use

CHEMICAL ANALYSIS OF INDUSTRIAL WATER
J. W. McCOY
306 pages, Illustrations
Hardcover
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£ 55.00

This classic book has been reprinted by popular demand. Analytical chemists and chemical engineers will find this a well written and well illustrated treatise.
dealing with (and finding solutions to) the problems of water treatment, plant corrosion, and chemical analysis connected with the chemical process industries, steam and power plants and petroleum refining. An excellent manual for both laboratory and field workers.

PARTIAL CONTENTS; Chemical Principles of Water Treatment-The Objectives in Treating Feed Water for Boilers; The Objectives in Treating Water Used for Cooling; The Analysis of Industrial Waters-Mineral Content; Dissolved Gases; Interpretation of Water Analysis, Special Procedures Related to Water Treatment- The Analysis of Foul Waters and Alkaline Sulfide Solutions; Chemical Cleaning of Process Equipment; Evaluation of Cation Exchange Resins,; Chemical Analysis of Scales, Sludges, and Deposits -Preliminary Treatment of Laboratory Samples; Systematic Analysis of Deposits of the Metallic Elements; Systematic Analysis of Water Formed Deposits; Special Procedures for Deposit Analysis; Interpretation of Analytical Results.

THE CHEMICAL TREATMENT OF BOILER WATER
JAMES W. McCOY
308 pages, Illustrations
Paperback
$ 75.00
£ 45.00

Those involved in the design, operation, or maintenance of industrial boilers will find this book an invaluable source of information. First the author discusses the relationship between boilers and the generated steam. The prevention of scaling, corrosion, stress corrosion cracking, and steam contamination are fully explored followed by an in-depth examination of the chemical treatments necessary to implement preventative measures. Specific types of boilers are discussed, water treatment programs and operating guidelines are outlined. Finally, step-by-step procedures are given for testing boiler water for the various contaminants. The clarity and accuracy of presentation allows this book to function as a manual as well as a text.

CONTENTS: Principles of Steam Generation; Objectives in Treating Water for Boilers; Physical methods for Improving Water Quality; External Chemical Treatments; Internal Chemical Treatments; Operating Procedures; Complications in the Operation of Boilers: Analytical Methods; Appendix.
THE CHEMICAL TREATMENT OF COOLING WATER
2nd Edition
JAMES W. McCoy
312 pages, illustrations
Hardcover
$ 105.00
£ 63.00
ISBN 0-8206-0298-1

This standard reference serves the industrial community as an authoritative source on cooling water problems. The problems of corrosion measurement and control are intensively examined and the more recently developed cooling water additives are reviewed. Advances in treatment chemicals and chemical cleaning are thoroughly explored:

PARTIAL CONTENTS: Principles of Open Recirculating Water Systems; Corrosions; Scaling and Fouling; Microbiology; Chemical Treatments; Operating Procedures; Analytical Methods.

THE MICROBIOLOGY OF COOLING WATER
JAMES W. McCoy
272 pages, Illustrations
Hardcover
$ 95.00
£ 57.00
ISBN 0-8206-0253-1

McCoy’s guide to the maintenance and management of cooling water systems and the bacteria that live in them. Includes studies and testing of microbicides and other microorganisms that infest re-circulating cooling water systems and factors influencing their health and growth. Tests biological oxidation processes as a way of reusing treated effluents as an important method of water conservation in the petroleum refining and chemical processing industries. Explores practical methods for controlling microorganisms in cooling water; including working with chlorine dioxide as a microbicide. Methods are given for identifying and evaluating toxicants and bacteria that lead to fouling and staining of cooling water systems.

PARTIAL CONTENTS: Classification and Structure of Most Common Microorganisms; Effects of Microorganisms; Control of Microorganisms; Application of Microbicides; Reclaimed Water; Methods of Analysis.
COOLING TOWER PERFORMANCE
DONALD R. BAKER
452 pages, Illustrations
Hardcover
$ 90.00
£ 55.00
ISBN 0-8206-0300-7

Begins with a brief review of the origins and early history of cooling towers and finally brings together the variety of terms in the industry into a uniform system of terminology. Facts accumulated as a result of laboratory testing together with full-scale tests in the field provide the basis for the methods described in the book. Provides easy to use combination of steps in which to incorporate the Merkel theory. English-American units of measure are used in the examples with metric equivalents shown in parentheses. Appendices contain tables of appropriate constants and conversion factors for use with SI (le Systeme International d’Unites). This guide is of great benefit to cooling tower users, operators and plant designers.

CONTENTS: Historical background of cooling towers; Development of cooling tower theory; Merkel and Enthalpy Potential; Lists laboratory testing facilities and test procedures; Field Testing; Tower Selection and Rating Tables; Tower Units and Universal Rating Charts; General Operating Principles; Hyperbolic Towers;

Nomenclature and definitions; Psychrometric Tables and Chart; Skeleton Tables for Calculating Goff Formulations; Bibliography; Index.

FIREWORKS TECHNOLOGY

FIREWORKS, PRINCIPLES AND PRACTICE, 4TH Edition
RON LANCASTER, MBE
548 pages, Illustrations
Hardcover
$ 135.00
£ 82.00

The thoroughly revised and updated 4th edition of the one essential reference source regarded as “the Bible of Fireworks”.
FIREWORKS, PRINCIPLES AND PRACTICE, 3rd Edition
RON LANCASTER, MBE
468 pages, Illustrations
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ISBN 0-8206-0354-6

All the chapters from the previous edition have been revised and enlarged to include in most cases new fireworks formats. Four new chapters have been added to this 3rd Edition:

In a new chapter Chemistry of Fireworks Compositions; Dr. Takeo Shimizu examines the use of materials and binders in the manufacturing process and how to control reactions.

The chapter on Fireworks Displays, examines the evolution of displays and modern uses throughout the world. The new chapter on Gunpowder deals with its uses since ancient times to date. The legislative framework for fireworks control in Great Britain, United States, Canada and the European Union are discussed in the new Legislation chapter.

In addition, this 3rd Edition includes a glossary with more than three hundred fireworks terms and numerous photographs, some from the historical archives of the Brocks Fireworks.

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3. Gunpowder
4. Fireworks Materials
5. General Pyrotechnic Principles
6. Chemistry of Fireworks Compositions
7. Legislation
8. Mixing and Charging
9. Containers
10. Stars
11. Colored Fires, Bengals, Lances, Portfires
12. Roman Candles, Comers, Mines
13. Noisemakers
14. Rockets
15. Drivers, Saxons, Tourbillions
16. Shells
17. Gerbs, Fountains, Rains, Squibs, Cones
18. Pinwheels and Crackers
19. Indoor Fireworks
20. Fuses, Quickmatch
21. Smoke
22. Exhibition Fireworks
Glossary
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GEORGE W. WEINGART
260 pages, Illustrations
Hardcover
$ 95.00
£ 57.00
ISBN 0-8206 0112-8

Here is a classic in the field, an enormously successful handbook on the art of making fireworks. In non-technical language, it gives formulas and detailed instructions for all the time-honored favorites, exhibition and display pieces. An indispensable book for both the beginner and the professional pyrotechnist.

PARTIAL CONTENTS: Ingredients; Manipulation; Tools and Appliances Used; Articles of Manufacture and Formulas; Exhibition Fireworks; Miscellaneous; Appendix; Glossary; Bibliography.

MILITARY AND CIVILIAN PYROTECHNICS
HERBERT ELLERN
480 pages
Paperback
$ 65.00
£ 40.00

Written for manufacturers, laboratory pyrotechnicians, and lay students, this book contains an enormous amount of invaluable data on the properties and production of pyrotechnic materials, on heat and light production, on aerosols, energy, and noise. Includes a manufacturing formulary, and a good reference section. Its wealth of information and highly readable style make it a ‘must have’ in every pyrotechnician’s library.
HANDBOOK OF PYROTECHNICS
KARL O. BRAUER
416 pages, Illustrations
Paperback
$ 75.00
£ 45.00

This handbook provides extremely useful data and information about theory and industrial applications that formerly were limited to applications in military ordnance, fireworks, and rock blasting. These “civilian” applications include spacecraft, aircraft, underwater vehicle systems, metal forming, cladding, riveting and some other production methods. Twenty-one chapters contained in six parts: Explosive Materials, Explosive-Actuated Devices, Pyrotechnic Systems, Reliability and Testing, Explosive Production Methods and Appendix. Contains numerous charts, graphs and illustrations as useful aids.

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SECTION V. PRODUCTION
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By popular demand the world-renowned Harry Bennett just before his death, compiled a new collection of cosmetic preparations. A valuable source for the industrial chemists looking to develop new products or for self-starters looking to start their own business.

CONTENTS: Hair Products; Bath preparations; Face and hand cleaners; Face and eye make-up; Creams and lotions; Mouth preparations; Perfumes; Colognes and powders; Shaving preparations; Sunscreen products; Baby preparations; Base formulas.

HANDBOOK OF PERFUMES AND FLAVORS
DR. OLINDO SECONDINI
492 pages, illustrations
Hardcover
$ 185.00
£ 111.00
ISBN 0-8206-0334-1

This unique, comprehensive source book provides a thorough guide to the compounding of basic floral perfumes for cosmetics, soaps, disinfectants, deodorants, and flavors for food. Regardless of scientific and technical education or experience in this field, this book will assist those involved in compounding perfume and flavor for all aspects of their application in the chemical industry.

PARTIAL CONTENTS: Fundamental Classification of Odors; Constituents of Essential Oils; Synthetic Essences; Aromatic Chemicals; Basic Flavoring Material; Perfumes; Solvents for Flavors and Perfumes; Coloring Material for Flavors and Perfumes; Formulary of Flavors and Perfumes.
This unique handbook contains the most essential engineering formulas used in the cement manufacturing process. All formulas are presented in both English and metric systems of units. Examples are given to familiarize the reader with the usefulness of these formulas. The book can be used as a text manual for courses in cement technology, and as a reference for solving operating problems. The book is equally valuable for the manager, supervisor, chemist, and operator as it is to the cement plant engineer.

CONTENTS: Cement Chemistry and Quality Control; Kiln Feed Mix Calculations; Chemical and Physical Properties of Materials; Technical Investigations of Kiln Performance; Heat Balance; Sulfur and Alkali Balance in Rotary Kilns; Chain Systems Designs; Cooler Air Balance Technical Investigation of Grinding Circuits; Ball Charges; Grinding Aid Solutions; Useful Formulas in Stearn Engineering Electrical Engineering; Fan Engineering; Fluid Flow; Physical Chemistry; Heat Transfer and Dust Collection; Fundamental Formulas in Algebra; Trigonometry; Statistics; Finances; Safety and Geometry; Conversion Factors for all Units.

This is an indispensable reference source and training tool not only for kiln operators, but for supervisors and management staff as well. Extensive discussions on pre-heater and pre-calciner operations are included. The appendix includes a section with conversion tables, definitions of common terms relating to rotary kilns, and a suggested outline for a training program for new operators.

CONTENTS: History; Types of Rotary Kilns; Refractories; Fuels; Combustion;
The Flame; Heat Transfer; Heat Balances; The Chemistry of Kiln Feed and Clinker; Reaction Zones in the Rotary Kiln; Coating and Ring Formation in a Rotary Kiln; The Air Circuit in a Rotary Kiln: Movement of the Material Through The Kiln; Kiln Operating and Control Methods; Instrumentation; Burning Zone Control; Fuel Systems; Clinker cooler Control; Kiln Exit-Gas Temperature Control; Feed-Rate Control; Kiln Starts and Shutdowns; The 27 Basic Kiln Conditions; Kiln Emergency Conditions; Safety and Accident Prevention; Appendix: A KILN OPERATOR’S QUIZ; Glossary; Conversion Tables; Index.

PARTIAL CONTENTS: History of calcareous cements; Classification of cements; Portland cements: Raw materials and manufacturing processes; Cement components and their phase relations; Cementing qualities of the cement compounds; Constitution, burning, proportioning, hydration and setting and hardening of Portland cement; Structure of cement compounds; Action of acid and sulphate waters of Portland Cement; Physical and mechanical properties of Portland Cement, Pozzolanas and Pozzolanic cements; Cements made from blast furnace slag; High Alumina cement, some special cements and cement properties; Concrete aggregates; Resistance of Concrete to various organic and inorganic agents; Examination of concrete failures.
Chemical Formulary Vol.34
H. BENNETT
250 pages
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There is hardly any technical library in the world in which the volumes of the Chemical Formulary (Volumes 1-34) do not occupy a prominent place. Chemists both experienced and beginner, continually refer to them. Volume 34 counts numerous experts among it's contributors, such as Editor-in-chief H. Bennett. It does not duplicate any of the formulas included in previous volumes, but lists a wide array of modern and salable products from all branches of the chemical industries. An excellent reference for formulation problems.

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A TEXTBOOK OF SOIL CHEMICAL ANALYSIS
P.R. HESSE
556 pages
Hardcover
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ISBN 0-8206-0242-6

Here is a teaching aid as well as a practical guide for soil analysts; It is the result of twenty years of experience and study and analysis of soils; It is equally useful to the undergraduate, post-graduate student of soil sciences as well as for the research professional in the soil laboratory;

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WHAT EVERY TECHNOLOGIST WANTS TO KNOW ABOUT....SERIES
Ed. M & I ASH
Vol. I. Emulsifiers and Wetting Agents,
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ISBN 0-8206-0362-7

This reference source provides an unparalleled range of coverage for important industrial chemicals. Each entry provides the generic chemical name of the product, its synonyms, all its trade names equivalents, and important applications and properties. The variations between trademarks are cited and extensive cross-referencing allows the user to easily locate the exact product that is needed for specific applications, and where to get it.
Every chemical research project begins with a thorough and expedient search of the chemical literature.

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As each section is designed for quick assimilation of the information necessary to locate a reference, researchers do not have to read the entire book or even a complete section to understand and search the chemical literature.

This handbook leads the infrequent searcher stepwise through the literature to the answer to a search. For those conducting computer searches, it will help in selecting the appropriate database and it will also aid in searching commands. As for the experienced librarian, this handbook will become the source to check in order to ensure that all the basis have been covered.

CONTENTS:

Search Orientation Table. Primary Sources: Aldrich Catalog/Handbook of Fine Chemicals; Annual Reports in Organic Synthesis; Beilstein; Hadbuch der Organischen Chemie; Chemical Abstracts; Chemist’s Companion; Compendium of Organic Synthetic Methods; Comprehensive Organic Chemistry; Comprehensive Organometallic Chemistry; Comprehensive Organic Functional Group Transformations; CRC Handbook of Chemistry and Physics; Dictionary of Organometallic Compounds; Dictionary of Organic Compounds; Dissertations; Encyclopedia; of Reagents for Organic Synthesis; Fieser’s Reagents for Organic Synthesis; Formation of C-C Bonds; Houben-Weyl Methoden der Organischen Chemie; Internet; Kirk-Othmer Encyclopedia of Chemical technology; Lange’s Handbook of Chemistry; Larock’s Comprehensive Organic Transformations; Literature; Merck’s Indexes; Organic Reactions; Organic Synthesis; Patai’s Chemistry of Functional Groups Series; Patents; Purchasing Chemicals; Rod’s Chemistry of Carbon Compounds; Science Citation Index; Scientific Dictionaries; Theilheimer’s Synthetic Methods of Organic Chemistry; Translations. Reviews.
HANDBOOK OF POWDER METALLURGY
Henry H. Hausner
616 pages
Hardcover
$ 99.00
£ 60.00
ISBN 0-8206-0219-1

Hausner’s handbook covers the entire field of powder metallurgy with its various branches and refinements, while at the same time remaining within the bounds of manageable size and readability. It is a concise presentation concentrating on graphical presentations and tables to explain basic relationships between the principles and technology of powder metallurgy. This book is a valuable guide not only for students and teachers but also for the practical powder metallurgists involved in research, development and production of P/M parts and compounds.

CONTENTS: Principles of; Powder Mixing; Sintering of Metal Powders; Alloy Formation by Powder Metallurgy; Hot Pressing; Powder Metallurgy of Iron and Iron Alloys, Copper and Copper Alloys, Light Metals and Refractory Metals; Electrical Applications; Porous Metals.

A FORMULARY OF PAINTS AND OTHER COATINGS
Ed. M & I ASH
436 pages
Paperback
$ 65.00
£ 39.00
ISBN 0-8206-0348-1

This book of formulas is a tool for anyone who must turn out quality paints without finance to develop and test completely new, untested prototypes. Most of the formulas are starting point preparations that do require refining. The chapters are built on: Use (primer, enamel, ext./int. paint, luminescent, etc.) Special Characteristics, Vehicle (oil, alkaloid, epoxy, etc.) and Color.
A FORMULARY OF ADHESIVES AND SEALANTS
Ed. M & I ASH
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This collection of formulas covers a wide range of applications in adhesive technology. The major industries involved in the manufacture of adhesive ingredients have contributed experimental and starting-point formulations to this work. All the formulas are categorized into chapters according to their principal applications. The formulas are then divided into sections based on their chemical constituents. Instruction for preparation are included.

PARTIAL CONTENTS: Hot-Melt Adhesives; Pressure-Sensitive Adhesives; Construction Adhesives; Laminating Adhesives; Furniture and Appliance Adhesives; Foam Rubber Adhesives; Wood and Plastic Assembly Adhesives; Newspaper and Printing Adhesives; Sealants; Binders; Caulks.

A FORMULARY OF DETERGENTS AND OTHER CLEANING AGENTS
Ed. M & I ASH
360 pages
Paperback
$ 65.00
£ 39.00
ISBN: 0-8206-0369-4

This is a collection of formulas devoted entirely to products that serve as cleaning agents for personal hygiene, household uses, and industrial maintenance. All formulas are systematically presented first by application and then classified by their chemical constituents. The formulas include instructions for preparation. Because of the broad spectrum of cleaning agents included in the book it will be valuable to both the industrial and home chemists with formulas geared to the professional and the hobbyist.

PARTIAL CONTENTS: Hygienic Cleansers; Solvent Cleaners; Industrial Floor Cleaners; General Industrial Cleaners and Detergents; Household Cleaners; Dry Cleaning Agents; Miscellaneous.
ENGINEERS’ ILLUSTRATED THESAURUS
HERBERT HERKIMER
592 pages, Illustrations
Paperback
$100.00
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This invaluable guide contains over 8,000 illustrations of machine elements and assembled machinery for the engineer, designer, draftsman and manufacturer.

CONTENTS: Fasteners; Adjusting Devices; Supports and Structures; Basic Mechanical movements; Elevators, Derricks, Cranes, Conveyors; Transmission of Liquids and Gases; Combustion; Prime Movers; Transportation; Industrial Processes; Electrical Appliances; Comfort Heating, Cooling and Air Conditioning.

METRIC CONVERSION HANDBOOK
M.H. GREEN
236 pages
Paperback
$ 45.00
£ 27.00
ISBN 0-8206-0351-1

Based primarily upon the National Bureau of Standards measurement’s publications the book provides accurate, detailed easy-access factors for converting to and from: The U.S. Customary and Metric Systems of Measurement. The International System of Units is discussed in detail and Conversion factors are provided for 17 categories; Angular Measure, Area, Energy, Electricity, Length, Power, Temperature, Volume, et. al.
INVENTOR’S HANDBOOK
TERRENCE W. FENNER
JAMES L. EVERETT
320 pages
Paperback
$ 60.00
£ 36.00
ISBN 8206-0381-3

An essential guide to making your ideas into realities. From patenting to production, Fenner and Everett’s book, covers every aspect of creating, patenting and implementing your product or idea. An ideal companion to Thring and Laithwaite’s ‘How to Invent.’

CONTENTS: Test Marketing; Patents; How to Make Money Out of Your Invention; How to Manufacture Your Invention and Needed Inventions.

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M.W. THRING
E.R. LAITHWAITE
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£ 33.00
ISBN 8206-0382-1

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Ed. HENRY GOLDSCHMIEDT
516 pages
Paperback
$ 65.00
£ 39.00
ISBN 0-8206-0347-3

The editor gathered hundreds of formulas for household products that can be made at home. Cosmetics, Foods, Adhesives, Glues, Soaps, Polishes, Cleaners, etc. Regardless of technical education or experience, young and old alike, will be able to make salable products from these formulas. A complete step-by-step method for setting up one’s business is included.
INDUSTRIAL & CHEMICAL TECHNOLOGY

THE CHEMICAL ANALYSIS OF ELECTROPLATING SOLUTIONS
TERRANCE H. IRVINE
192 pages, Illustrations
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HANDBOOK OF LABORATORY SOLUTIONS
M.H. GABB, W.E. LATCHAM
128 pages
Paperback
$ 55.00
£ 33.00
ISBN 0-8206-0365-1

A concise and handy guide to the numerous “recipes” for chemical solutions used in laboratories. In each chapter, preparations of one particular use, or related uses, are grouped alphabetically. Where appropriate, the use of the solutions are stated and cross reference made. Should meet most of the everyday requirements of chemistry, physics, biology and engineering laboratories.

CONTENTS: Solutions-Basic Definitions; Solutions-Handling Techniques; Solutions for Titrations; Bench Solutions; Indicators; Organic Reagents; Solutions in Histology; Physiological Salines and Culture Solutions; Miscellaneous Solutions.
The many advances in polymers and their associated processes have rendered necessary this new edition from Mr Miles and Mr Briston - two very renowned and respected British authors. Polymer and Material Scientists in industrial, academic and government laboratories, as well as researchers and managers who need to keep abreast of developments in Polymer Technology will find this an invaluable practical reference source: New additions include sections on Stretch Blow Molding, Multi-layer (Coextrusion), Bottle Blowing, and Decoration of Plastics, with a new chapter on Thermoplastic Polyesters. The MATERIAL Chapters (Thermosets and Thermoplastics, Natural Polymers and Derivatives; Rubberlike Polymers, Inorganic Polymers, Compounding Ingredients), were updated to include linear low density polyethylene (LLDPE), pearlescent polypropylene, amorphous nylons (Sela PA), poly (ethylene terephthalate) (PET), ethylene/vinyl alcohol copolymers (EVOH), poly (etheramide) (Ultem), and poly (etheretherketone) (PEEK). The updated chapters on PROCESSING (Compression and Transfer Molding, Extrusion, Injection Molding and Blow Molding, Thermoforming, Powder Coating, Miscellaneous Processing Techniques) take account of developments in Powder Coating, Coextrusion, Injection and Blow Molding, Solid Phase Pressure Forming, and Thermoforming (including blister and skin packaging). The TESTING Chapter (Physical and Chemical Testing of Plastics) as well as the APPLICATION aspects are updated and expanded to include Water Vapor. The section on Optical Tests has also been updated and enlarged.

INDUSTRIAL CHEMICAL CLEANING
JAMES W. McCoy
296 pages, Illustrations
Hardcover
$ 105.00
£ 63.00
ISBN 0-8206-0305-8

Here is a lucid, practical presentation of the problems and solutions to industrial chemical cleaning. Contained in one essential reference are the causes and composition of fouling, the various chemicals used for its control, hazards in cleaning, and an examination of cleaning methods for the most common industrial equipment. Finally, a complete section on
the chemical analysis of the deposits with procedures for determining the most effective cleaning solutions is included. This book will serve as the main reference tool for the industrial engineer who manages equipment cleaning operations and the consultant who is called in to do the job.

CONTENTS: Principles of Chemical Cleaning; Chemicals Used in Industrial Cleaning; Nonaqueous Cleaning Solvents; Nonchemical Cleaning Procedures; Passivation; Planning and Contracting; Steam Generators; Water-Cooled Heat Exchangers; Columns, Reactors, and Other Vertical Vessels; Furnace Tubes; Analytical Procedures; Appendices.

PARTICULATE SCIENCE AND TECHNOLOGY
JOHN K. BEDDOW
740 pages, Illustrations
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ISBN 8206-0254-X

In the words of the author, “…this book is an attempt to provide a methodical whole-field view of fine particle science and technology. It in no way pretends to be exhaustive.” Yet it covers many of the bases.

CONTENTS: Particulate Properties and Structure; Particle-Fluid Separation; Particle Handling and Controls.
This is a practical, quick reference guide for those who are actively involved in protecting the health of the worker. It is organized for rapid access, clarity and conciseness. Contents refer to various chemicals, drugs, insecticides and other compounds. The entries are listed by their most familiar names from ABRIN to ZIRCONIUM. Each entry contains all the data that the seeker needs to know—synonyms, all aspects of toxicity. Threshold Limit Values, tests, treatment, and precautions to be observed. The appendix contains an extensive bibliography.

The second edition of this popular formulary contains the entire spectrum of confectionery and chocolate products. New formulas as well as formulas for low-calorie candy have been added to reflect consumers’ changing preferences. Additional chapters deal with Hazard Analysis Critical Control Point (HACCP), U.S. Labeling Laws, Storage and Color Addition. Formulas are presented in a clear and precise manner, including the ingredients for their manufacture and the step-by-step procedure.

Mr. Harris is a former U.S. Army Natick Research at the Development & Engineering Center. Mr. Crespo is a Vice President-Technical Emeritus for Wilbur Chocolate Co.
This book presents reliable information, in a non-technical manner, on the composition, nutritive value, manufacture, chemistry, and bacteriology of milk and dairy products. The book introduces the reader to the broad aspects of the dairy industry and the possibilities of bringing in new techniques.
At the same time, water quality regulations have become more rigorous, analytical capabilities for detecting contaminants have become more sensitive, and the general public has become both more knowledgeable and more discriminating about water.

The evolution of water treatment practice has a rich history of empirical and scientific insights. In the Sanskrit Ousruta Sanghita it is noted that impure water should be purified by being boiled over a fire, or being heated in the sun, or by dipping a heated iron into it, or it may be purified by filtration through sand and coarse gravel and then allowed to cool.