

Two New Safety Publications

from The Royal Society of Chemistry

Hazards in the Chemical Laboratory 4th Edition

Edited by L. Bretherick, *Safety Consultant*

Hazards in the Chemical Laboratory has become established as an essential handbook of safety practices, measures and toxic effects for laboratories handling dangerous chemicals. Since the last edition was published in 1981 there have been many changes in legislation regulations, precautionary safety methods and toxicity assessments which warrant publication of this new 4th edition. In addition coverage has been expanded to include material relating to legislation and safety practices in the USA.

Brief Contents:

Introduction; Health and Safety at Work Act 1974; Safety Planning and Management; Fire Protection; Reactive Chemical Hazards; Chemical Hazards and Toxicology; Health Care and First Aid; Hazardous Chemicals; Precautions Against Radiations; An American View.

Protective PVC Binding 618pp ISBN 0 85186 489 9

Price: £29.50 (\$54.00) RSC Members £18.00

Guide to Safe Practices in Chemical Laboratories

The "Guide to Safe Practices in Chemical Laboratories" is the successor to the "Code of Practice for Chemical Laboratories" published by the Royal Institute of Chemistry in 1976. The broad objective of the Guide remains the same as that of the earlier "Code of Practice:" to provide general guidance on which specific procedures can be based and to point out relevant statutory requirements.

Brief Contents:

Introduction; Organisation for Safety; Hazards; Design; Operation; Legislation and Bibliography;

Softcover 40pp ISBN 0 85186 479 1

Price: £10.00 (\$18.00) RSC Members £7.50

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New Book

from *The Royal Society of Chemistry*

The Chemistry and Physics of Baking

Edited by

J. M. V. Blanshard, *University of Nottingham*

P. J. Frazier, *Dalgety Group Research*

T. Galliard, *R.H.M. Research Ltd*

The coverage of this book reflects the considerable progress in the field. The main areas covered are: Basic Constituents of Baked Products; Fundamental Interactions: Consequences, Control; Developments in Processes and Products.

Contents:

Basic Constituents of Baked Products

The Significance of the Structure and Function of the Starch Granule in Baked Products; Flour Proteins; Structure and Functionality in Baked Products; The Significance of Water in the Baking Process; Non-starch Polysaccharides; Functionality of Wheat Lipids in Relation to Gluten Gel Formation; The Role of Fats and Emulsifiers in Baked Products; Protein Functionality in Bakery Products; Enzymes in Baking; The Biotechnology of Baker's Yeast; Old or New Business?

Fundamental Interactions: Consequences, Control

Physicochemical Processes in Mixing; Protein - Lipid and Protein - Carbohydrate Interactions in Flour - Water Mixtures; Redox Systems in Dough; Rheological Aspects of Structural Changes during Baking; Action of Oxidants and Other Improvers; Wholemeal Flour and Baked Products; Chemical Aspects of Functional Properties; Component Interactions during Heating and Storage of Baked Products.

Developments in Processes and Products

Extrusion cooking *versus* Conventional Baking; Optimization of Products and Processes; The Way Ahead: Wheat Breeding for Quality Improvement; Baking - The Way Ahead.

Special Publication No. 56 (1986)

Hardcover 284pp

ISBN 0 85186 995 5

Price £39.50 (\$71.00) RSC members £25.00

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Two New Safety Publications

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Organo-Chlorine Solvents

Health Risks to Workers

Prepared for the Commission of the European Communities this new book deals with the safe use and toxicity of certain widely used organo-chlorine compounds.

It contains original material reproduced by the Royal Society of Chemistry including recommended occupational exposure limits for each material considered. In addition it contains a series of reports based on reviews of the published literature.

Contents:

Background Note on the Sources of information used in these Reports.

Background Note on Occupational Exposure Limits.

Background Note on the Number of Persons Potentially at Risk from Occupational Exposure in the European Communities to the Ten Organo-chlorine Solvents Examined.

- *p*-Dichlorobenzene
- Chloroform
- 1,1,1-Trichloroethane
- 1,2-Dichloroethane
- Trichloroethylene
- 1,1,2-Trichloroethane
- Dichloromethane
- 1,2-Dichloropropane
- Perchloroethylene
- Carbon Tetrachloride

Hardcover 269pp ISBN 0 85186 078 8

Price: £50.00 (\$90.00) RSC members £35.00

Toxic Hazard Assessment of Chemicals

Edited by: M. L. Richardson, *RSC Environment Group*

The aim of the book is to provide basic guidance on means of retrieving, validating, and interpreting data in order to make a toxicological hazard assessment upon a chemical. This book gives information and advice for many of those concerned with research application and legislation relevant to toxic hazards and should materially assist in the formulation of recommendations, concerning acceptable of safe levels of exposure to particular substances.

Brief Contents:

Section 1 - Introduction

Section 2 - Retrieval of Data

Section 3 - Verification of Data

Section 4 - Interpretation of Data

Section 5 - Risk Assessment and Case Histories

Section 6 - Legislation on Chemicals

Hardcover 370pp ISBN 0 85186 897 5

Price: £47.50 (\$85.00) RSC members £30.00

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New Books

from The Royal Society of Chemistry

Photochemistry in Organic Synthesis

Edited by J. D. Coyle, *The Open University*

The aim of the book is to introduce or strengthen elements in the strategies employed by the synthetic chemist that consist of reaction types which can best be accomplished photochemically. The chapters are written on the assumption that the reader has a familiarity with organic structures, terminology, compound types and synthetic reactions such as might be acquired in a three-year honours degree course with chemistry as a major subject, or the equivalent gained by experience of working in synthesis.

Brief Contents:

Basic Principles; Practical Photochemistry; General Considerations; Steroids; Carbonyl Compounds; Cycloaddition; Enone and Dienone Rearrangements; Alkenes; Isomerisation and Rearrangement; Alkenes; Cycloaddition; Alkenes; Photo-oxidation; Terpenoids; Aromatic Compounds; Isomerisation and Cycloaddition; Practical Photochemistry; Scale-up; Aromatic Compounds; Substitution and Cyclisation; Alkaloids; Photoinitiated Free-radical Chain Reactions.

Special Publication No. 57 (1986)

Softcover 342pp ISBN 0 85186 656 5

Price £39.50 (\$71.00) RSC members £19.50

Understanding Our Environment

Edited by R. E. Hester, *University of York*

This book provides a wide-ranging and authoritative coverage of topics which are fundamental to our understanding and appreciation of the nature of our environment. The six chapters are written by authors who are acknowledged experts in their particular fields, providing a sufficient depth of treatment to satisfy the needs of serious students of the subject matter but in a style and level which will be found comprehensible and interesting by the generally concerned, involved, and educated layman.

Brief Contents:

Monitoring; The Air; Water; Land Contamination and Reclamation; Assessing the Ecological and Health Effects of Pollution; Regulation and the Economics of Pollution Control; Appendix; Information Retrieval.

Hardcover 348pp ISBN 0 85186 907 6 (1986)

Price £42.50 (\$77.00) RSC members £17.50

(RSC members entitled to a 20% discount on bulk orders for 15 or more copies of Understanding Our Environment.)

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