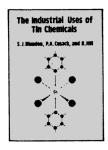
The Industrial Uses of Tin Chemicals



by S. J. Blunden, P. A. Cusack and R. Hill

This book brings together in one volume the industrial and commercial uses of both the inorganic and organic compounds of the element tin.

Compiled by scientists at the International Tin Research Institute, this publication provides excellent accounts of the syntheses and fundamental chemical properties of the materials under discussion.

Researchers, technologists, manufacturers and users in such diverse fields as ceramics, pharmaceuticals, plastic stabilisers, agriculture, paints, catalysis, and many more will now have an authoritative source of reference on the application of tin chemicals to their various industries.

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Pharmacokinetics of Cardiovascular, Central Nervous System, and Antimicrobial Drugs

by P. G. Welling and F. L. S. Tse

During the last 20 years the drug industry and the practice of medicine have expanded at an incredible rate. This has been due to the combined influences of a number of factors, including rapid advances in pharmacology and pathology, and accompanying advances in such diverse areas as pharmacodynamics, pharmacokinetics, and the development of sophisticated drug delivery systems. The last of these has been the focus of frenzied activity during the last ten years, and is likely to continue for some time. More recent advances in immunopharmacology and the use of monoclonal antibodies have provided further impetus to the quest for new drugs in many therapeutic areas.

Three major areas of drug research and development which have undergone considerable changes in recent years include cardiovascular agents, drugs acting on the central nervous system, and antimicrobial agents.

This book reviews developments which have taken place in these subjects from 1970 to the early 1980's.

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Second SCI-RSC Medicinal Chemistry Symposium

Edited by J. C. Emmett

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13-Azaprostanoids and Their Actions as Thromboxane Receptors;

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Molecular Aspects of Toxicology

By D. E. Hathway

Toxicology covers a wide field, which comprises chemical toxicology, cosmetics toxicology, environmental toxicology, food and drugs toxicology, industrial toxicology, pesticide toxicology, and the toxicology of atmospheric pollution, and which involves acute and long-term testing as well as special tests for carcinogenicity, irritation, mutagenicity and teratogenicity. In the testing phases, diagnoses are reached through the disciplines of chemical pathology, clinical medicine and pathology, and in the experimental one, explanation is sought through chemical/biochemical and pharmacological methods.

In such a fragmented field as toxicology with so many diverse practices and specialisms, it is hard to gain an idea of continuity.

This book attempts to unify the subject of toxicology and should be useful to chemists engaged in molecular biology and workers concerned with toxicology and cancer research in particular, as well as to pharmacologists and specialists in drug development and occupational hygiene and medicine in general.

Brief Contents:

Part I Toxicity of Foreign Compounds

Assessment of Toxic Risk; Structure-Activity Considerations;

Measurement of a Carcinogenic Exposure;

Part II Relation between Dose and Effect and Time

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Species Differences in Metabolism and Toxicity;

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Part VI Chemical Carcinogenesis

Importance of Chemical Non-enzymic Reactions in Vivo; Possible Mechanisms of Carcinogenesis and their Biological Significance; Host Factors and Cellular Aspects; Tissue Specificity;

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Recent Advances in the Chemistry of Insect Control

Edited by N. F. Janes

Softcover 336pp ISBN 0 85186 965 3 PRICE £26.00 (\$34.00) RSC MEMBERS PRICE £16.00

From the earliest discovery that pyrethrum flowers had usable insecticidal activity and the first major investigation of the pyrethrins published in 1924, pyrethroids have grown from a minor to a major group of Insecticides, other groups of active compounds have been discovered, and pesticide chemistry has advanced beyond recognition.

This publication covers recent advances in the synthesis and evaluation of highly active compounds such as the avermectins and milbemycins and a range of insect pheromones and antifeedants, aspects of structure – activity relationships in insecticides, including pyrethroids (where stereochemistry is highlighted), carbamate propesticides, and juvenile hormone mimics.

Contents:

The Biochemical Mode of Action of Insecticides; Stereochemical Aspects of Pyrethroid Chemistry; The Avermectins; Lipophilic Insect Control Agents; Oxime Ethers: New Potent Insect Growth Regulators; Multidisciplinary Studies in the Design of New Insecticides; Some Aspects of Structure – Activity Relationships in Pyrethroids; Synthesis and Biological Activity of 2-Indanyl Pyrethroid Esters; New Intermediates for the Synthesis of Pyrethroids; A New Type of Synthetic Pyrethroid Insecticide; Structure – Activity Relationships of Methylcarbamoyloximes and Their Sulfenylated Derivatives: Discovery of Thiodicarb; Synthetic Approaches to the Avermectin Toxophore; Synthetic Studies towards the Avermectins and Milbemycins; The Application of Novel Carbanion Chemistry in Milbemycin – Avermectin Synthesis; Phytochemical Resources for Plant Protection: Chiral Synthesis: Examples in the Pheromone Field; Synthesis of Some Insect Antifeedants.

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Recent Developments in the History of Chemistry

Edited by C. A. Russell

Hardcover 344pp ISBN 0 85186 917 3 PRICE £27.50 (\$36.00) RSC MEMBERS PRICE £12.00

This book is intended primarily to inform chemists of recent progress in the history of chemistry. It originated from an initiative of the Historical Group of the Royal Society of Chemistry who for some considerable time had been aware of a rising surge of interest amongst chemists in the history of their subject. Yet there was also considerable frustration in obtaining reliable and up-to-date information, in understanding recent trends and in perceiving the relevance to specific problems of some of the less obviously 'chemical' writing of the last few years. Those with whom the Group was in touch included chemistry teachers wishing to introduce – perhaps only occasionally – historical elements into their school curricula. Others who expressed both interest and frustration were members of university and polytechnic chemistry departments, chemists in industrial research and those who had taken early or normal retirement. These are the readers for whom this book has been published, aithough it is hoped that professional historians of science may also find it to be of interest and value in its general surveys of the literature.

Brief Contents:

Chemical Biographies; Chemical Education and Chemical Institutions; Chemistry to 1800; General and Inorganic Chemistry; Organic Chemistry; Physical Chemistry; Analytical Chemistry; Biochemistry; Instruments and Apparatus; Industrial Chemistry; Chemistry by Location in Western and Central Europe; Appendix I Periodicals for The History of Chemistry; Appendix II Some Useful Addresses; Author, Subject and Themes Indexes.

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Nitrification Inhibition in the Treatment of Sewage

Compiled by M Richardson

Softcover 108pp ISBN 0 85186 596 8

Price £15.00 (\$21.00) RSC Members £10.00

The purpose of this book is to provide a rapid reference to information on those chemicals which have been reported in the literature to produce inhibition of nitrification to sewage works processes, etc. Some information is also included where chemicals are known to inhibit anaerobic processes.

The first section of this book following the introduction consists of data relevant to nearly 300 chemical compounds including information relating to substance names, molecular weights, molecular formulae, degree of nitrification inhibition, concentration and references.

This information has been collated from sources indicated in the reference section, however, it is stressed that the information given in these references has not been validated. The final section of this book lists in ascending mass number the chemicals described in the earlier section. It will be of particular value when gas chromatography – mass spectrometry is undertaken on trader's discharges, sewage, river or other water samples.

This book should therefore be an invaluable source of information for scientists and trade effluent officers within Water undertakings, Government Departments, etc., and equally for environment and safety officers within manufacturing industry who may not have ready access to, or knowledge of, the potential risks associated within the discharge of their waste chemicals.

Contents:

Chemicals with effects on nitrification in sewage treatment works; References; List of compounds in ascending mass number;

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