

JOURNAL OF THE CHEMICAL SOCIETY

Chemical Communications

Number 19
1986

CONTENTS

- 1461 Novel Catalytic Dehydrogenative Polymerization for Polyquinoline Synthesis **Long Y. Chiang, R. R. Chianelli**
- 1462 A Copper Phthalocyanine with Four Crown Ether Voids **Nagao Kobayashi, Yoshiyuki Nishiyama**
- 1464 Polytopic Ligand Systems: Synthesis and Complexation Properties of a 'Crowned' Phthalocyanine **Ron Hendriks, Ot E. Sielcken, Wiendelt Drenth, Roeland J. M. Nolte**
- 1465 Regiospecific Synthesis of Terminal, Oxyfunctionalized Methyl Ketone Enamines *via* Catalytic Aminomercuriation of Prop-2-ynyl Esters and Ethers **José Barluenga, Fernando Aznar, Ramón Liz, Carmen Postigo**
- 1467 Chiral Recognition during the Reaction of Dienyliron Complexes with Sulphoximine-stabilized Enolates **Anthony J. Pearson, Jaeyon Yoon**
- 1469 Stereostructures of Reaction Products of Thymidine Epoxides with Amines and L-Amino Acid Ethyl Esters **Takashi Harayama, Reiko Yanada, Tooru Taga, Katsunosuke Machida, Jean Cadet, Fumio Yoneda**
- 1472 Unsymmetrically Substituted Dithiadiselenafulvalene Donors for Organic Metals. Synthesis and Conductivity of the Charge-transfer Salts **Koichi Kikuchi, Takahisa Namiki, Isao Ikemoto, Keiji Kobayashi**
- 1473 Poly[1,4-di-(2-thienyl)benzene]: a New Conducting Polymer **R. Danieli, P. Ostoja, M. Tiecco, R. Zamboni, C. Taliani**
- 1474 Photoinduced Insertion of Sulphur Bridges into a Cr≡S≡Cr Multiple Bond, and X-Ray Crystal Structure of $(\eta^5\text{-C}_5\text{H}_5)_2\text{Cr}_2(\mu\text{-S})_2(\mu\text{-S}_2)$ **Lai Yoong Goh, Thomas C. W. Mak**
- 1476 Synthesis and Structure of a Mixed-valence Tetramolybdate containing a Binucleating Diazene Ligand **Donato Attanasio, Vincenzo Fares, Patrizia Imperatori**
- 1477 A Photochemically-generated Acyl-Vinyl Biradical as a Synthetic Precursor of a 2,3-Dihydrofuran and a Butyrolactone **Hermann Hombrecher, Paul Margaretha**
- 1478 Reactivity of Novel *cis*-Platinum(II) Complexes with Thymidine Derivatives **Bruno Longato, Giuseppe Pilloni, Gian Maria Bonora, Benedetto Corain**
- 1480 A Photoinduced Two Carbon Ring Expansion leading to an Easy Synthesis of γ -Tropolone **Marino Cavazza, Francesco Pietra**
- 1481 Azahomoaporphines: a New Heterocyclic Skeleton from Annonaceae **Bruce K. Cassels, André Cavé, Daniel Davoust, Reynald Hocquemiller, Sabine Rasamizafy, Dragana Tadić**
- 1483 Thiol Exchange for MO^{3+} (M = Mo or W) Centres; Synthesis and Structure of $[\text{PPh}_4][\text{MO}(\text{SCH}_2\text{CH}_2\text{S})_2]$ **S. Richard Ellis, David Collison, C. David Garner, William Clegg**
- 1485 Identification and Sequencing of Sugars in Saponins using 2D ^1H N.M.R. Spectroscopy **Georges Massiot, Catherine Lavaud, Dominique Guillaume, Louisette Le Men-Olivier, Georges Van Binst**
- 1487 The Canonical Structure and ^{31}P Nuclear Magnetic Resonance Properties of Inorganic Thiophosphate **John R. P. Arnold, Gordon Lowe**
- 1488 A Simple Conversion of 5-Cyanouridine into Uridine **David J. Mincher, Gordon Shaw**
- 1489 Novel Quinone-type Acceptors fused with Sulphur Heterocycles and their Highly Conductive Complexes with Electron Donors **Yoshiro Yamashita, Takanori Suzuki, Gunzi Saito, Toshio Mukai**
- 1491 Tetrakis(1-norbornyl)cobalt, a Low Spin Tetrahedral Complex of a First Row Transition Metal **Erin K. Byrne, Darrin S. Richeson, Klaus H. Theopold**
- 1492 Biosynthesis of Vitamin B $_{12}$: Preparation of 12-Methylisobacteriochlorins and Related Systems **Alan R. Battersby, Christine Bladon, Jing-Jain Huang, Shujiro Seo**
- 1495 Aurantioemestrin from *Emericella striata* and Silvathione from *Aspergillus silvaticus*, Possible Key Intermediates from Epidithiodioxopiperazines to Trioxopiperazines **Nobuo Kawahara, Koohei Nozawa, Shoichi Nakajima, Ken-ichi Kawai**

AUTHOR INDEX

- Arnold, John R. P., 1487
 Attanasio, Donato, 1476
 Aznar, Fernando, 1465
 Barluenga, José, 1465
 Battersby, Alan R., 1492
 Bladon, Christine, 1492
 Bonora, Gian Maria, 1478
 Byrne, Erin K., 1491
 Cadet, Jean, 1469
 Cassels, Bruce K., 1481
 Cavazza, Marino, 1480
 Cavé, André, 1481
 Chianelli, R. R., 1461
 Chiang, Long Y., 1461
 Clegg, William, 1483
 Collison, David, 1483
 Corain, Benedetto, 1478
 Danieli, R., 1473
 Davoust, Daniel, 1481
 Drenth, Wiendelt, 1464
 Ellis, S. Richard, 1483
 Fares, Vincenzo, 1476
 Garner, C. David, 1483
 Goh, Lai Yoong, 1474
 Guillaume, Dominique, 1485
 Harayama, Takashi, 1469
 Hendriks, Ron, 1464
 Hocquemiller, Reynald, 1481
 Hombrecher, Hermann, 1477
 Huang, Jing-Jain, 1492
 Ikemoto, Isao, 1472
 Imperatori, Patrizia, 1476
 Kawahara, Nobuo, 1495
 Kawai, Ken-ichi, 1495
 Kikuchi, Koichi, 1472
 Kobayashi, Keiji, 1472
 Kobayashi, Nagao, 1462
 Lavaud, Catherine, 1485
 Le Men-Olivier, Louisette,
 1485
 Liz, Ramón, 1465
 Longato, Bruno, 1478
 Lowe, Gordon, 1487
 Machida, Katsunosuke, 1469
 Mak, Thomas C. W., 1474
 Margaretha, Paul, 1477
 Massiot, Georges, 1485
 Mincher, David J., 1488
 Mukai, Toshio, 1489
 Nakajima, Shoichi, 1495
 Namiki, Takahisa, 1472
 Nishiyama, Yoshiyuki, 1462
 Nolte, Roeland J. M., 1464
 Nozawa, Koohei, 1495
 Ostoja, P., 1473
 Pearson, Anthony J., 1467
 Pietra, Francesco, 1480
 Pilloni, Giuseppe, 1478
 Postigo, Carmen, 1465
 Rasamizafy, Sabine, 1481
 Richeson, Darrin S., 1491
 Saito, Gunzi, 1489
 Seo, Shujiro, 1492
 Shaw, Gordon, 1488
 Sielcken, Ot E., 1464
 Suzuki, Takanori, 1489
 Tadić, Dragana, 1481
 Taga, Tooru, 1469
 Taliani, C., 1473
 Theopold, Klaus H., 1491
 Tiecco, M., 1473
 Van Binst, Georges, 1485
 Yamashita, Yoshiro, 1489
 Yanada, Reiko, 1469
 Yoneda, Fumio, 1469
 Yoon, Jaeyon, 1467
 Zamboni, R., 1473

NEW BOOKS

From The Royal Society of Chemistry



ROYAL
SOCIETY OF
CHEMISTRY
Information
Services

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

This publication is the result of an international symposium on the Chemistry and Physics of Baking, Materials Processes and Products, held at the School of Agriculture, University of Nottingham, 10-12th April 1985.

The coverage of this book reflects the considerable progress made in the field. The main areas covered are: Basic Constituents of Baked Products; Fundamentals Interactions: Consequences, Control; Developments in Process 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 284 ISBN 0 85186 995 5
Price £39.50 (\$71.00)
RSC Members £25.00

General and Synthetic Methods Vol. 8

Senior Reporter:
G. Pattenden
University of Nottingham

This book reviews the literature published during 1983.

Brief Contents:

Saturated and Unsaturated Hydrocarbons; Aldehydes and Ketones; Carboxylic Acids and Derivatives; Alcohols, Halogeno-compounds, and Ethers; Amines, Nitriles, and Other Nitrogen-containing Functional Groups; Organometallics in Synthesis; Saturated Carboxylic Ring Synthesis; Saturated Heterocyclic Ring Synthesis; Highlights in Total Synthesis of Natural Products; Reviews on General and Synthetic Methods.

"The series nicely complements other compilations of methodology which consist solely of formulas with little or no discussion of scope or limitations of specific procedures. As such it will prove to be a useful resource to practitioners of organic synthesis." - James Kallmerten, *Journal of Pharmaceutical Sciences*, reviewing Vol. 7.

Specialist Periodical Report

Hardcover 583pp ISBN 0 85186 894 0
Price £125.00 (\$225.00)
RSC Members £65.00

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.

(to be published Autumn 1986)

Softcover 40pp ISBN 0 85186 479 1
Price £10.00 (\$18.00)
RSC Members £7.50

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 produced 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
Trichlorethylene
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. 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 from many of those concerned with research application and legislation relevant to toxic hazards and should materially assist in the formulation of recommendations, concerning acceptable or 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

(to be published October 1986)

Hardcover 380pp ISBN 0 85186 897 5
Price £47.50 (\$85.00)
RSC Members £30.00

ORDERING

RSC Members should send their orders to:
Membership Manager, The Royal Society of Chemistry, 30 Russell Square, London WC1B 5DT.

Non-RSC Members should send their orders to:
The Royal Society of Chemistry, Distribution Centre, Blackhorse Road, Letchworth, Herts SG6 1HN, UK.