JOURNAL OF THE CHEMICAL SOCIETY

Chemical Communications

Number 12 1990

CONTENTS

- 845 Assembled Supported Monolayers of Synthetic Lipids on Gold Electrodes via 'Ion-exchange Methods' Nadoshi Nakashima, Yasunori Takada, Masashi Kunitake, Osamu Manabe
- 847 The First Example of an Intermolecular Weak (Agostic) γ-Methyl-Metal Interaction: the Low Temperature Single Crystal X-Ray and Neutron Diffraction Structure of (MgR₂)_∞ [R = CH(SiMe₃)₂] Peter B. Hitchcock, Judith A. K. Howard, Michael F. Lappert, Wing-Por Leung, Sax A. Mason
- 849 The Direct Characterisation of Iron Porphyrins from Coal using Paramagnetic Shift Effects on Proton NMR Spectra Raymond Bonnett, Franciszek Czechowski, Lechoslaw Latos-Grażyński
- 851 Metallation of β-Propiolactam; Crystal Structures of Hg(C₃H₄NO)₂·H₂O and of the Bimetallic Polymeric 48-Membered Macrocyclic Complex [Hg₃(C₃H₄NO)₆Er₂(NO₃)₆]_n David M. L. Goodgame, Arwa M. Khaled, Caroline A. O'Mahoney, David J. Williams
- 853 Structure of Penem Sulphoxide Rie Tanaka, Yoshiaki Oyama, Masaji Ishiguro
- 854 A Divergent Route to Nojirimycin Analogues from L-Serinal and 2-Acetylthiazole Fantin, Marco Fogagnolo, Pedro Merino

 Alessandro Dondoni, Giancarlo Fantin, Marco Fogagnolo, Pedro Merino
- 856 The Synthesis of Pillared Vanadium Oxide Mostafa Khairy, Daniel Tinet, Henri van Damme
- 858 Regio- and Stereo-selective Formation of Methylenecyclopropane Complexes from Allenes and Benzylidenepentacarbonyl Tungsten Helmut Fischer, Wolfgang Bidell, Josef Hofmann
- 859 Materials easily Orientated in a Magnetic Field: Paramagnetic Nematic Liquid Crystal Oxovanadium(IV) Complexes with Bidentate Schiff's Bases José Luis Serrano, Pilar Romero, Mercedes Marcos, Pablo J. Alonso
- 862 Concerted Synchronous Two-hydron Transfer within the Formic Acid Dimer. A Kinetic Isotope Effect Study using Ab initio Calculations Peder Svensson, Nils-Åke Bergman, Per Ahlberg
- 863 Near IR Sensitive Unsymmetrical Squaraines Kock-Yee Law, F. Court Bailey
- 865 A Total Synthesis of (+)-Isovelleral. The Absolute Configuration of the Russulaceae Sesquiterpenes
 R. Bergman, T. Hansson, O. Sterner, B. Wickberg
- 867 The pH Control of the Decolouration Rate of Spironaphthoxazine Derivatives Takeo Yamaguchi, Takashi Tamaki, Yuji Kawanishi, Takahiro Seki, Masako Sakuragi
- 869 Chemoselective Hydrogenation of Imines catalysed by Ir^{III} Complexes Y. Ng Cheong Chan, D. Meyer, J. A. Osborn
- 871 A Silver Co-ordination Polymer bridged by a Conjugated Ligand Atta M. Arif, Thomas G. Richmond
- 873 Formation and Decomposition of Oxygen Clathrate Hydrate as seen by Two-step Differential Scanning Calorimetry; Novel Method for Investigating Reactions Accompanied by Gas Release Andreas Hallbrucker, Erwin Mayer
- 874 Synthesis and Reactivity of a Novel Oxazolo[2,3-c][1,4]benzodiazepine Ring System with DNA Recognition Potential: a New Class of Anthramycins David E. Thurston, Gary B. Jones, Michael E. Davis
- 876 Oxygenation of Phenylacetylene catalysed by Co(salen) [H₂salen = 1,6-bis-(2-hydroxyphenyl)-2,5-diazahexa-1,5-diene] Akira Nishinaga, Kazushige Maruyama, Kohei Yoda, Hiromitsu Okamoto
- 878 Encapsulation of Lanthanide Ions in Calixarene Receptors. A strongly Luminescent Terbium(3+) Complex Nanda Sabbatini, Massimo Guardigli, Andrea Mecati, Vincenzo Balzani, Rocco Ungaro, Eleonora Ghidini, Alessandro Casnati, Andrea Pochini
- 880 Synthesis of Bis(2-methoxyethylcyclopentadienyl) Complexes of Early Lanthanide Chlorides and the X-Ray Structure of the Lanthanum Complex Daoli Deng, Changtao Qian, Guang Wu, Peiju Zheng
- 881 Phosphate Condensation and Amination in Dilute Aqueous Solution; Reaction of Sulphamide with Triphosphate and Diphosphate David R. Gard, Edward J. Griffith

- 882 Attempted Generation of Substituted 1,2,3-Triazolium-1-methanides: a New Ring Expansion to 2,3-Dihydro-1,2,4-triazines: ab initio Calculations on 1,2,3-Triazolium-1-oxide, -1-imide, and -1-methanide 1,3-Dipoles and a Striking Illustration of the Hammond Principle in the Cyclisation of Hetero-1,3,5-trienes

 Richard N. Butler, J. Paul Duffy, D. Cunningham, P. McArdle, Luke A. Burke
- 884 Synthesis and Characterization of a Novel Zeolite, CJS-1 Zhao Daqing, Pang Wenqin
- 885 Photochemical Reduction of NAD+ to 1,4-NADH without an Enzyme Keisuke Umeda, Asao Nakamura, Fujio Toda
- 887 Self-supporting Molecular Bilayer Lipid Films in Protic and Aprotic Organic Solvents. Existence of Organized Bilayer Structure and Phase Transition Naotoshi Nakashima, Koji Nakayama, Masashi Kunitake, Osamu Manabe
- 888 An Efficient and Diastereoselective Method for the Synthesis of (R)-1-Ferrocenylethylamines and 1-Ferrocenylethyl Acetate Dorothy M. David, Leon A. P. Kane-Maguire, Stephen G. Pyne
- 889 Efficient Energy Transfer in a Biphenyl-containing Bilayer Membrane Guowen Li, Yongchi Tian, Yingqiu Liang,
- 891 Novel Rhodathiaborane Complexes Derived from [(PPh₃)₂RhSB₉H₁₀] George Ferguson, Michael C. Jennings, Alan J. Lough, Siobhan Coughlan, Trevor R. Spalding, John D. Kennedy, Xavier L. R. Fontaine, Bohumil Štíbr
- 894 Synthetic Approaches to the Alkaloids of the Ancistrocladaceae: (-)-O-Methylancistrocladine and (+)-O-Methylhamatine Mark A. Rizzacasa, Melvyn V. Sargent

AUTHOR INDEX

Ahlberg, Per, 862 Alonso, Pablo J., 859 Arif, Atta M., 871 Bailey, F. Court, 863 Balzani, Vincenzo, 878 Bergman, Nils-Åke, 862 Bergman, R., 865 Bidell, Wolfgang, 858 Bonnett, Raymond, 849 Burke, Luke A., 882 Butler, Richard N., 882 Casnati, Alessandro, 878 Chan, Y. Ng Cheong, 869 Coughlan, Siobhan, 891 Cunningham, D., 882 Czechowski, Franciszek, 849 Daqing, Zhao, 884 David, Dorothy M., 888 Davis, Michael E., 874 Deng, Daoli, 880 Dondoni, Alessandro, 854 Duffy, J. Paul, 882 Fantin, Giancarlo, 854 Ferguson, George, 891 Fischer, Helmut, 858 Fogagnolo, Marco, 854 Fontaine, Xavier L. R., 891

Gard, David R., 881 Ghidini, Eleonora, 878 Goodgame, David M. L., 851 Griffith, Edward J., 881 Guardigli, Massimo, 878 Hallbrucker, Andreas, 873 Hansson, T., 865 Hitchcock, Peter B., 847 Hofmann, Josef, 858 Howard, Judith A. K., 847 Ishiguro, Masaji, 853 Jennings, Michael C., 891 Jones, Gary B., 874 Kane-Maguire, Leon A. P., Kawanishi, Yuji, 867 Kennedy, John D., 891 Khairy, Mostafa, 856 Khaled, Arwa M., 851 Kunitake, Masashi, 845, 887 Lappert, Michael F., 847 Latos-Grażyński, Lechoslaw, 849 Law, Kock-Yee, 863 Leung, Wing-Por, 847 Li, Guowen, 889 Liang, Yingqiu, 889

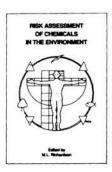
Lough, Alan J., 891 McArdle, P., 882 Manabe, Osamu, 845, 887 Marcos, Mercedes, 859 Maruyama, Kazushige, 876 Mason, Sax A., 847 Mayer, Erwin, 873 Mecati, Andrea, 878 Merino, Pedro, 854 Meyer, D., 869 Nakamura, Asao, 885 Nakashima, Naotoshi, 845, 887 Nakayama, Koji, 887 Nishinaga, Akira, 876 Okamoto, Hiromitsu, 876 O'Mahoney, Caroline A., 851 Osborn, J. A., 869 Oyama, Yoshiaki, 853 Pochini, Andrea, 878 Pyne, Stephen G., 888 Qian, Changtao, 880 Richmond, Thomas G., 871 Rizzacasa, Mark A., 894 Romero, Pilar, 859 Sabbatini, Nanda, 878 Sakuragi, Masako, 867

Sargent, Melvyn V., 894 Seki, Takahiro, 867 Serrano, José Luis, 859 Spalding, Trevor R., 891 Sterner, O., 865 Štíbr, Bohumil, 891 Svensson, Peder, 862 Takada, Yasunori, 845 Tamaki, Takashi, 867 Tanaka, Rie, 853 Thurston, David E., 874 Tian, Yongchi, 889 Tinet, Daniel, 856 Toda, Fujio, 885 Umeda, Keisuke, 885 Ungaro, Rocco, 878 van Damme, Henri, 856 Wenqin, Pang, 884 Wickberg, B., 865 Williams, David J., 851 Wu, Guang, 880 Yamaguchi, Takeo, 867 Yoda, Kohei, 876 Zheng, Peiju, 880

ROYAL SOCIETY OF CHEMISTRY

RISK ASSESSMENT OF CHEMICALS IN THE ENVIRONMENT

Edited by M. L. Richardson, Chemical Information Group, RSC



Risk assessment is a multidisciplinary subject with worldwide consequences and this important new book outlines the basic principles involved. Risk Assessment of Chemicals in the Environment is based on the Third FECS Conference on Chemistry and the Environment and provides both up-to-date information and a forum for discussion on the subject.

With worldwide contributions from eminent, internationally known authors, the book covers both chemical and radioactive risk assessment, predictive techniques, risk acceptance (including prediction and reality on isolated and global bases), approaches to the control of chemical disasters and much more . . . It is divided into four sections as follows: Introduction and Overview;

Contribution of Toxicology to Risk Assessment; Incidental Emissions – Air and Water; and Intentional Emissions.

Also included is a glossary of terms, useful addresses and a subject index.

This book will be of great value to scientists and other professionals, whether experts or novices, involved in any aspect of the safety of chemicals in the environment.

ISBN 0 85186 118 0 Hardcover 604pp Published 1988 Price £59.50 (\$119.00) RSC Members Price £35.00

EXPERIMENTAL TOXICOLOGY

The Basic Issues

Edited by Diana Anderson, Head of Genetic and Reproductive Toxicology at British Industrial Biological Research Association and D. M. Conning, Director-General of the British Nutrition Foundation



This important new book is aimed at toxicologists in general and addresses the basic issues concerned with the practice of experimental toxicology.

Principles and methods are discussed in detail, covering experimental design, biochemical issues, animal husbandry, species differences, immunological issues, carcinogenesis, reproductive approaches, statistics, genetics, some *in vitro* and molecular approaches, plus risk assessment, information resources, aspects of legislation, good laboratory practice and laboratory design.

Experimental Toxicology will be of great interest to all those practising in the field, as well as to those who wish to gain a basic understanding of what toxicology is all about. It will also be useful to specialists in a other disciplines, who need an introduction to this area.

ISBN 0 85186 108 3 Hardcover 550pp Published 1988 Price £69.50 (\$138.00) RSC Members Price £39.50



Information

Services

For further information, please write to: Royal Society of Chemistry, Sales and Promotion department, Thomas Graham House, Science Park, Milton Road, Cambridge CB4 4WF. U.K. To Order, please write to:
Royal Society of Chemistry, Distribution
Centre, Blackhorse Road, Letchworth,
Herts SG6 1HN. U.K.
or telephone (0462) 672555 quoting
your credit card details.
We can now accept Access/Visa/
MasterCard/Eurocard.

RSC Members should order from: The Membership Manager, Royal Society of Chemistry, Thomas Graham House, Science Park, Milton Road, Cambridge CB4 4WF, U.K.