

## JOURNAL OF THE CHEMICAL SOCIETY

## Chemical Communications

Number 12  
1993

## CONTENTS

- Ryohei Yamaguchi, Katsunobu Mochizuki, Sinpei Kozima, Hidemasa Takaya 981 Divergent Change of Regioselectivity in Nucleophilic Addition of Electron Deficient Allylic Tin Reagents to 4-Acylpyridinium Salts; Selective Formation of 4,4-Disubstituted 1,4-Dihydropyridines
- A. A. Gorman, I. Hamblett, F. A. P. Rushton, D. J. Unett 983 'Nonvertical' Triplet Energy Transfer to a Severely Non-planar 1,3-Diene: Proposal of a Mechanism based on Progressive Endothermicity of Vertical Transfer to Individual Single-bond Torsional Levels
- Alberto Arnone, Pierfrancesco Bravo, Alessandro Donadelli, Giuseppe Resnati 984 Asymmetric Synthesis of Fluorinated Analogues of 1-Deoxynojirimycin
- Ronny Neumann, Moshe Cohen 986 Reactions in Thermotropic Liquid Crystals: Epoxidations catalysed by Oriented Metalloporphyrins
- William J. Leigh, Jo-Ann H. Banisch, Mark S. Workentin 988 Charge-transfer Interactions in the Intramolecular Quenching of Carbonyl Triplets by  $\beta$ -Aryl Substituents
- Emmanuelle Leize, Alain Van Dorsselaer, Roland Krämer, Jean-Marie Lehn 990 Electrospray Mass Spectrometry of the Self-assembly of a Capped Polymetallic Complex
- Alois Haas, Michael Pryka 993 A New Fluorinated Dithiaselenatelluratetrazocinium Cation: Synthesis, Properties and Structure
- Brian J. Schoeman, Johan Sterte, Jan-Erik Otterstedt 994 Synthesis and Size Tailoring of Colloidal Zeolite Particles
- Tony K. M. Shing, Vincent W.-F. Tai 995 Facile Syntheses of Cyclophellitol and its (1*R*,6*S*)-, (1*R*,2*S*,6*S*)-, (2*S*)-Diastereoisomers from (-)-Quinic acid
- Durgesh V. Nadkarni, James L. Fry 997 Demonstration of a Novel Method for the Controlled Deposition of Metals onto Surfaces by Preparation of a Pd-Hg/SiO<sub>2</sub> Catalyst for the Selective Hydrogenation of Alkynes to Alkenes
- Mohammed Bssaibis, Albert Robert, Abdelaziz Souizi 998 A Revised Mechanism for the Cycloaddition of Mesoionic Dithioles with Heterocumulenes
- Graham M. T. Cheetham, Marjorie M. Harding, Jane L. Haggitt, D. Michael P. Mingos, Harold R. Powell 1000 Synthesis and Microcrystal Structure Determination of [Au<sub>10</sub>(PPh<sub>3</sub>)<sub>7</sub>{S<sub>2</sub>C<sub>2</sub>(CN)<sub>2</sub>}]<sub>2</sub> with Monochromatic Synchrotron Radiation
- Gerhard Bringmann, Thomas Mader, Karl Peters, Hans Georg von Schnering 1001 Unexpected Hydantoin Formation in the Attempted Amidation with 2-Aminobenzophenone of Glyoxylic Acid using Dicyclohexylcarbodiimide
- Nobuo Kato, Shigenori Kusakabe, Xue Wu, Masashi Kamitamari, Hitoshi Takeshita 1002 Total Synthesis of Optically Active Sordaricin Methyl Ester and its  $\Delta^2$ -Derivative
- Annette Blumenthal, Holger Beruda, Hubert Schmidbaur 1005 Tetrakis[(triphenylphosphine)gold(I)](tricyclohexylphosphine)boronium Tetrafluoroborate, a Novel Boron-centred Gold Cluster
- Goverdhan Mehta, Shailesh R. Shah, K. Ravikumar 1006 Towards the Design of Tricyclopenta[*def,jkl,pqr*]triphenylene ('Sumanene'): a 'Bowl-shaped' Hydrocarbon featuring a Structural Motif Present in C<sub>60</sub> (Buckminsterfullerene)
- Maria D. Vargas, Regina M. S. Pereira, Dario Braga, Fabrizia Grepioni 1008 Facile and Reversible CO Insertion into the Ir-CH<sub>3</sub> Bond of [Ir<sub>4</sub>(CH<sub>3</sub>)(CO)<sub>8</sub>( $\mu_4$ - $\eta^3$ -Ph<sub>2</sub>PCCPh)( $\mu$ -PPh<sub>2</sub>)]
- Alexei A. Gridnev, Steven D. Ittel, Michael Fryd, Bradford B. Wayland 1010 Formation of Organocobalt Porphyrin Complexes by Reactions of Cobalt(II) Porphyrins with Azoisobutyronitrile and Organic Substrates
- Janez Plavec, Neeraj Garg, Jyoti Chattopadhyaya 1011 How does the Steric Effect drive the Sugar Conformation in the 3'-C-branched Nucleosides?
- Divakaramenon Venugopal, Louis D. Todaro, Paul Margaretha, William C. Agosta 1014 Photochemical Formation and Dimerization of a 2,3-Cycloheptadien-1-one
- Peter B. Hitchcock, Michael F. Lappert, Iain A. MacKinnon 1015 Lipophilic Metal (Na, Ti<sup>III</sup>, Zr<sup>IV</sup>, Rh<sup>I</sup> and Pd<sup>II</sup>) Complexes derived from the Hybrid Ligands -OR and HOR (R = Me<sub>2</sub>PCH<sub>2</sub>CBu<sup>t</sup>); the X-Ray Structures of [TiCl(OCBu<sup>t</sup>CH<sub>2</sub>CH<sub>2</sub>PMe<sub>2</sub>)<sub>2</sub>] and *trans*-[Rh(CO)Cl(PMe<sub>2</sub>CH<sub>2</sub>CBu<sup>t</sup>OH)<sub>2</sub>]

- Litao Zhang, Alba Macías, Tianbao Lu, Jeffrey I. Gordon, George W. Gokel, Angel E. Kaifer** 1017 Calixarenes as Hosts in Aqueous Media: Inclusion Complexation of Ferrocene Derivatives by a Water-soluble Calix[6]arene
- David M. L. Goodgame, Stuart P. W. Hill, David J. Williams** 1019 Ligand-induced Formation of a Triple Helical Bridge involving *O*-Donor Ligands in Dimeric Lanthanide Complexes
- Tristram Chivers, Katherine McGregor, Masood Parvez** 1021 Preparation and X-Ray Structures of Tridentate (N,N,S) Complexes of the Diazene *trans*-[PhSNC(4-MeC<sub>6</sub>H<sub>4</sub>)N=NC(4-MeC<sub>6</sub>H<sub>4</sub>)NSPh] with Platinum and Palladium
- Masami Sakamoto, Mamoru Fujihira, Masaki Takahashi, Katsutoshi Enomoto, Naoki Nishimiya, Tsutomu Fujita, Shoji Watanabe** 1023 Photochemical Isomerization of 3-Acetylpyridines to Cyclobuta[*c*]pyridines involving Norrish Type II Reactions
- K. C. Nicolaou, Zhen Yang, Erik J. Sorensen, Masahisa Nakada** 1024 Synthesis of *ABC* Taxoid Ring Systems *via* a Convergent Strategy
- David Clarke, Richard W. Mares, Hamish McNab** 1026 A Novel Entry to the Imidoylketene–Oxoketenimine Energy Surface
- David R. Corbin, Lloyd Abrams, Glover A. Jones, Matthew L. Smith, Cecil R. Dybowski, Joseph A. Hriljac, John B. Parise** 1027 Entrapment and Controlled Release of Xenon in Cd<sup>2+</sup>-exchanged Zeolite Rho
- Richard M. Musau, Andrew Whiting** 1029 The Synthesis of Furan-derived Calixarenes
- K. Bello, John Griffiths, P. P. de Wit, E. W. P. Erdhuis** 1031 Facile Irreversible Thermochromism of a Near-infrared Azamethine Chromophore
- Seiichi Takano, Kiyohiro Samizu, Kunio Ogasawara** 1032 A Concise Diastereoselective Route to Racemic Samin, the General Furofuran Lignan Precursor
- Véronique Goulle, Anthony Harriman, Jean-Marie Lehn** 1034 An Electro-photoswitch: Redox Switching of the Luminescence of a Bipyridine Metal Complex
- Karl Heinz Dötz, Jörg Glänzer** 1036 Fluorinated Hydroquinones *via* Annulation of Fluorovinylcarbene Complexes with Alkynes
- Jean-Pierre Dulcère, Valérie Agati, Jean Rodriguez** 1038 Synthesis and Reactivity of Allenylvinyl Cycloalk-2-enyl Ethers
- Akihiro Ohsuka, Takanobu Fujimori, Toshikazu Hirao, Hideo Kurosawa, Isao Ikeda** 1039 A Novel Synthesis of (Oxodimethylenemethane)-palladium and -platinum Complexes

**AUTHOR INDEX**

- Abrams, Lloyd, 1027  
 Agati, Valérie, 1038  
 Agosta, William C., 1014  
 Arnone, Alberto, 984  
 Banisch, Jo-Ann H., 988  
 Bello, K., 1031  
 Beruda, Holger, 1005  
 Blumenthal, Annette, 1005  
 Braga, Dario, 1008  
 Bravo, Pierfrancesco, 984  
 Bringmann, Gerhard, 1001  
 Bssaibis, Mohammed, 998  
 Chattopadhyaya, Jyoti, 1011  
 Cheetham, Graham M. T., 1000  
 Chivers, Tristram, 1021  
 Clarke, David, 1026  
 Cohen, Moshe, 986  
 Corbin, David R., 1027  
 de Wit, P. P., 1031  
 Donadelli, Alessandro, 984  
 Dötz, Karl Heinz, 1036  
 Dulcère, Jean-Pierre, 1038  
 Dybowski, Cecil R., 1027  
 Enomoto, Katsutoshi, 1023  
 Erdhuis, E. W. P., 1031  
 Fry, James L., 997  
 Fryd, Michael, 1010  
 Fujihira, Mamoru, 1023  
 Fujimori, Takanobu, 1039  
 Fujita, Tsutomu, 1023  
 Garg, Neeraj, 1011  
 Glänzer, Jörg, 1036  
 Gokel, George W., 1017  
 Goodgame, David M. L., 1019  
 Gordon, Jeffrey I., 1017  
 Gorman, A. A., 983  
 Gouille, Véronique, 1034  
 Grepioni, Fabrizia, 1008  
 Gridnev, Alexei A., 1010  
 Griffiths, John, 1031  
 Haas, Alois, 993  
 Haggitt, Jane L., 1000  
 Hamblett, I., 983  
 Harding, Marjorie M., 1000  
 Harriman, Anthony, 1034  
 Hill, Stuart P. W., 1019  
 Hirao, Toshikazu, 1039  
 Hitchcock, Peter B., 1015  
 Hriljac, Joseph A., 1027  
 Ikeda, Isao, 1039  
 Ittel, Steven D., 1010  
 Jones, Glover A., 1027  
 Kaifer, Angel E., 1017  
 Kamitamari, Masashi, 1002  
 Kato, Nobuo, 1002  
 Kozima, Sinpei, 981  
 Krämer, Roland, 990  
 Kurosawa, Hideo, 1039  
 Kusakabe, Shigenori, 1002  
 Lappert, Michael F., 1015  
 Lehn, Jean-Marie, 990, 1034  
 Leigh, William J., 988  
 Leize, Emmanuelle, 990  
 Lu, Tianbao, 1017  
 McGregor, Katherine, 1021  
 Macías, Alba, 1017  
 MacKinnon, Iain A., 1015  
 McNab, Hamish, 1026  
 Mader, Thomas, 1001  
 Mares, Richard W., 1026  
 Margaretha, Paul, 1014  
 Mehta, Goverdhan, 1006  
 Mingos, D. Michael P., 1000  
 Musau, Richard M., 1029  
 Nadkarni, Durgesh V., 997  
 Nakada, Masahisa, 1024  
 Neumann, Ronny, 986  
 Nicolaou, K. C., 1024  
 Nishimiya, Naoki, 1023  
 Ogasawara, Kunio, 1032  
 Ohsuka, Akihiro, 1039  
 Otterstedt, Jan-Erik, 994  
 Parise, John B., 1027  
 Parvez, Masood, 1021  
 Pereira, Regina M. S., 1008  
 Peters, Karl, 1001  
 Plavec, Janez, 1011  
 Powell, Harold R., 1000  
 Pryka, Michael, 993  
 Ravikumar, K., 1006  
 Resnati, Giuseppe, 984  
 Robert, Albert, 998  
 Rodriguez, Jean, 1038  
 Rushton, F. A. P., 983  
 Sakamoto, Masami, 1023  
 Samizu, Kiyohiro, 1032  
 Schmidbaur, Hubert, 1005  
 Schoeman, Brian J., 994  
 Shah, Shailesh R., 1006  
 Shing, Tony K. M., 995  
 Smith, Matthew L., 1027  
 Sorensen, Erik J., 1024  
 Souizi, Abdelaziz, 998  
 Sterte, Johan, 994  
 Tai, Vincent W.-F., 995  
 Takahashi, Masaki, 1023  
 Takano, Seiichi, 1032  
 Takaya, Hidemasa, 981  
 Takeshita, Hitoshi, 1002  
 Todaro, Louis D., 1014  
 Unett, D. J., 983  
 Van Dorsselaer, Alain, 990  
 Vargas, Maria D., 1008  
 Venugopal, Divakaramenon, 1014  
 von Schnering, Hans Georg, 1001  
 Watanabe, Shoji, 1023  
 Wayland, Bradford B., 1010  
 Whiting, Andrew, 1029  
 Williams, David J., 1019  
 Workentin, Mark S., 988  
 Wu, Xue, 1002  
 Yamaguchi, Ryohei, 981  
 Yang, Zhen, 1024  
 Zhang, Litao, 1017

# ROYAL SOCIETY OF CHEMISTRY

## CHEMISTRY WALLCHART

### The Origins of Organic Chemistry 1800-1900

By C.A. Russell  
The Open University

#### History of Chemistry Wallcharts Series

**The Origins of Organic Chemistry 1800-1900** illustrates how the increasingly detailed knowledge of organic composition gradually unfolded over the last century. It traces the development of formulae from the simple empirical to the more complex steric and highlights the inter-relationship between analysis, synthesis and structure. Central to these developments were the Unitary and Dualistic traditions, the union of which, in 1860, provides a focus for the chart and shows how modern organic chemistry began to take shape in the second half of the nineteenth century.

**The Origins of Organic Chemistry 1800-1900** is arranged in columns, colour coded to relate to the different subject areas covered, and has a key to indicate where information has relevance to another column. It is attractive, clearly laid out and informative, making it ideal for anyone with an interest in chemistry, whether in an academic or professional environment.

640 x 900mm  
ISBN 0 85186 440 6  
March 1992

Full Colour Poster  
Price £4.95  
(puls VAT in the UK only)

ROYAL SOCIETY OF CHEMISTRY



Information Services

**To Order, Please write to the:** Royal Society of Chemistry, Turpin Distribution Services Limited, Blackhorse Road, Letchworth, Herts SG6 1HN, UK. **or telephone** (0462) 672555 quoting your credit card details. We accept Access/Visa/MasterCard/Eurocard.

Turpin Distribution Services Limited is wholly owned by the Royal Society of Chemistry.

**For information on other books and journals, please write to the:** Royal Society of Chemistry, Sales and Promotion Department, Thomas Graham House, Science Park, Milton Road, Cambridge CB4 4WF, UK.

**RSC Members should obtain members prices and order from:** The Membership Affairs Department at the Cambridge address above.

# ROYAL SOCIETY OF CHEMISTRY

## IMPORTANT READING

### Risk Management of Chemicals

Edited by Mervyn L. Richardson  
Principal, BASIC

This new book is perhaps the first authoritative work on the risk management of chemicals and fills an important gap in the market, which is devoid of works on the subject.

It reviews the current status of risks entailed in the manufacture, handling, use and disposal of the chemicals on which we all depend and suggests future action for the protection of both the workplace and the natural environment.

**Risk Management of Chemicals** has an international authorship and addresses international issues. It is the sequel to the RSC's publications 'Toxic Hazard Assessment of Chemicals' and 'Risk Assessment of Chemicals' and like those should find an important place as a key reference work.

This book is a must for graduates, researchers, regulatory bodies, safety professionals, trade unions, politicians and anyone with an interest in this area.

#### Brief Contents:

Setting the Scene; Managing Risk in Manufacture; Risk Management from Waste; Managing Risk During Chemical Use; Subject Index.

Special Publication No. 101

Hardcover  
ISBN 0 85186 467 8  
June 1992

xxii + 392 pages  
Price £69.50

ROYAL SOCIETY OF CHEMISTRY



Information Services

**To Order, Please write to the:** Royal Society of Chemistry, Turpin Distribution Services Limited, Blackhorse Road, Letchworth, Herts SG6 1HN, UK. **or telephone** (0462) 672555 quoting your credit card details. We accept Access/Visa/MasterCard/Eurocard.

Turpin Distribution Services Limited is wholly owned by the Royal Society of Chemistry.

**For information on other books and journals, please write to the:** Royal Society of Chemistry, Sales and Promotion Department, Thomas Graham House, Science Park, Milton Road, Cambridge CB4 4WF, UK.

**RSC Members should obtain members prices and order from:** The Membership Affairs Department at the Cambridge address above.

## BIOTRANSFORMATIONS RESEARCH

Postdoctoral Research Fellow required by Chemistry Department for one year initially from September or soonest, to work with Professor S.M. Roberts and Dr. A.J. Willetts on SERC funded project "Development of an Efficient Enzyme-Catalysed Baeyer-Villiger Reaction". Salary up to £14,183 p.a.

Information from Professor S.M. Roberts, Chemistry Department, University of Exeter, Exeter EX4 4QD, to whom applications (CV and 2 referees) should be sent by 14 July 1993.

Equal Opportunities Employer

UNIVERSITY  
of EXETER

## CLASSIFIED ADVERTISING

DISPLAY AND SEMI-DISPLAY

£15.00 per single col. cm.  
column width 43mm (10 ems)

Send your advertisements:-

**Classified Advertisements,  
Burlington House, Piccadilly,  
London W1V 0BN.**

**Tel: 071 287 3093**

**Fax: 071 494 1134**