

Journal of The Chemical Society

Chemical Communications

ISSUED TWICE MONTHLY

JCCCAT (16) 817-872 (1981)

CONTENTS

- Page
- 817 Photochemical Aromatic Cyanomethylation **Stephen Lapin** and **Michael E. Kurz**
- 818 The Bond Graph **Steven H. Bertz**
- 820 Surface Photochemistry: The Photodimerisation of Acenaphthylene on Dry Silica Gel
Paul de Mayo, Keiji Okada, Maria Rafalska, Alan C. Weedon, and **George S. K. Wong**
- 822 Silyl Thioketones and Silylated Thiirans **Bianca F. Bonini, Germana Mazzanti, Sauro Sarti,**
Paolo Zanirato, and **Gaetano Maccagnani**
- 823 Charge-transfer and Non-charge-transfer Crystal Forms of (*E*)-5,5'-Dimesitylbifuranylidenediones: an
X-Ray Structural Investigation **Michael J. Begley, Leslie Crombie, Gary L. Griffiths,**
Raymond C. F. Jones, and **Mawardi Rahmani**
- 825 ¹⁵N Nuclear Polarisation during Nitro-group Exchange Reactions on a σ -Complex formed by *ipso*-Attack
Paul Helsby, John H. Ridd, and **John P. B. Sandall**
- 827 Gonyautoxin VIII, a Cryptic Precursor of Paralytic Shellfish Poisons
Masaru Kobayashi and **Yuzuru Shimizu**
- 828 Organotellurium Chemistry, *cis*- and *trans*-2,6-Diphenyl-1,4-ditellurafulvenes
M. V. Lakshmikantham, Michael P. Cava, Michael Albeck, Lars Engman,
Fred Wudl, and **Eliezer Aharon-Shalom**
- 829 Synthesis, Electronic Structure, and Complex Formation of Simple 1,1,4,4-Tetrathiabutadienes
Daniel J. Sandman, Glenn D. Zoski, W. Andrew Burke, Gregory P. Hamill,
Gerald P. Ceasar, and **Arthur D. Baker**
- 832 A New Photochemical Spiroannulation Method. Access to Substituted Spirocyclohexanepiperidines
Jean-Claude Gramain, Yves Troin, and **Danielle Vallee**
- 833 Dynamic Properties of Molecular Complexes and Receptor-Substrate Complementarity. Molecular
Dynamics of Macrotricyclic Diammonium Cryptates **Jean-Pierre Kintzinger,**
Florence Kotzyba-Hibert, Jean-Marie Lehn, Alain Pagelot, and **Kazuhiko Saigo**
- 836 Products of Low Potential Energy in Mass Spectra as a Consequence of Ion-Dipole Attractions; the Case
of Isobutyl Alcohol **Richard D. Bowen** and **Dudley H. Williams**
- 838 Thermal Racemization of a Chiral Arene Oxide Metabolite: Chrysene 3,4-Oxide
Derek R. Boyd, Michael G. Burnett, and **Ruth M. E. Greene**
- 840 Syntheses of 9 α ,11 α -Diacylamino-9,11-dideoxy-prostaglandin F_{2 α} Analogues
Michael L. Swain and **Ralph W. Turner**
- 841 The Solvolysis of Orthotelluric Acid in HF **Walter Tötsch, Paul Peringer,** and **Fritz Sladky**
- 842 Change of Reducibility of Cupric Ions in Y Zeolites with Reduction-Reoxidation Cycles
Masakazu Iwamoto, Shozo Ohura, and **Shuichi Kagawa**
- 844 Ruthenium Metal-catalysed Deuterium Exchange between Organosilanes and Perdeuteriobenzene
John L. Garnett, Mervyn A. Long, and **Patra Sriwattanatamma**
- 845 Electronic Ligand Effects in Nickel Alloy Catalysts **Robert Burch**
- 847 The Binding of Neutral Platinum Complexes by Crown Ethers. *X*-Ray Crystal Structures of [*trans*-
PtCl₂(PMe₃)NH₃-dibenzo-18-crown-6] and [{"*trans*-PtCl₂(PMe₃)NH₃]₂-18-crown-6]
Howard M. Colquhoun, J. Fraser Stoddart, and **David J. Williams**
- 849 Isolation and *X*-Ray Crystal Structure of [Cu(NH₃)₄H₂O.18-crown-6]_n²⁺[PF₆]_{2n}⁻ A Linear Face-to-
face Hydrogen Bonded Chain Copolymer
Howard M. Colquhoun, J. Fraser Stoddart, and **David J. Williams**

Contents—continued overleaf

For Notices to Authors, see issue 1, pp. 1 to 4

Contents—continued

- Page
- 851 Formation and *X*-Ray Crystal Structure of $[\text{Pt}(\text{H}_2\text{NCH}_2\text{CH}_2\text{NH}_2)_2\cdot 18\text{-crown-6}]_n^{2+}[\text{PF}_6]_{2n}^-$. A Hydrogen Bonded Stepped-chain Copolymer
Howard M. Colquhoun, J. Fraser Stoddart, and David J. Williams
- 852 Formation of Bicyclic Phosphazenes *via* the Reactions of Methyl- and Phenyl-magnesium Chloride with Hexachlorocyclotriphosphazene
Paul J. Harris, James L. Desorcie, and Harry R. Allcock
- 853 Internuclear Exchange of Carbonyl Groups in $\text{Os}_3(\text{CO})_{12}$: Coupling Constants $J(^{187}\text{Os}-^{13}\text{C})$ in Trinuclear Osmium Carbonyls
Avtandil A. Koridze, Olga A. Kizas, Nadezhda M. Astakhova, Pavel V. Petrovskii, and Yurii K. Grishin
- 855 Dye-sensitized Photo-oxygenation of Tryptophan to give *N*'-Formylkynurenine
Masako Nakagawa, Shiro Kato, Kumiko Nakano, and Tohru Hino
- 856 The Use of ^2H N.m.r. Spectroscopy and β -Isotopic Shifts in the ^{13}C N.m.r. Spectrum to Measure Deuterium Retention in the Biosynthesis of the Polyketide 6-Methylsalicylic Acid
Chris Abell and James Staunton
- 858 Isolation and *X*-Ray Crystal Structure of a Novel Dihydroterpyridine Dimer formed *via* an Anionic [6 + 4] Cycloaddition
George R. Newkome, David C. Hager, and Frank R. Fronczek
- 859 Arylation of Quinones with Arenes and Palladium Acetate
Toshio Itahara
- 861 *X*-Ray Crystal Structure and Molecular Dynamics of the μ -Dimethylcarbene Complex $[\text{Ru}_2(\text{CO})_2(\mu\text{-CO})(\mu\text{-CMe}_2)(\eta\text{-C}_5\text{H}_5)_2]$
Andrew F. Dyke, Selby A. R. Knox, Kevin A. Mead, and Peter Woodward
- 862 Synthesis, *X*-Ray Crystal Structure and Reactivity of the Di- μ -carbene Complex $[\text{Ru}_2(\text{CO})_2(\mu\text{-CHMe})(\mu\text{-CMe}_2)(\eta\text{-C}_5\text{H}_5)_2]$
Michael Cooke, David L. Davies, Jacques E. Guerschais, Selby A. R. Knox, Kevin A. Mead, Jean Roué, and Peter Woodward
- 864 (–)-Herbertene, an Aromatic Sesquiterpene with a Novel Carbon Skeleton from the Liverwort *Herberta adunca*
Akihiko Matsuo, Shunji Yuki, Mitsuru Nakayama, and Shûichi Hayashi
- 865 *X*-Ray Crystal Structure of $[\text{N}(\text{CH}_2\text{CH}_2\text{PPh}_2)_3]_2\text{Co}_2(\mu\text{-Hg}_2)$; the Dimeric Hg_2^{2+} Ion forms a Linear Bridge between the two Cobalt Atoms
Carlo A. Ghilardi, Stefano Midollini, and Simonetta Moneti
- 867 Reactions of Alkynes with Bridging Alkylidyne Ligands in Metal Complexes: *X*-Ray Crystal Structures of $[\text{FeW}\{\mu_2\text{-C}(\text{C}_6\text{H}_4\text{Me-4})\cdot\text{C}(\text{Me})\cdot\text{C}(\text{Me})\}(\text{CO})_5(\eta\text{-C}_5\text{H}_5)]$ and $[\text{Fe}_2\text{W}(\mu_3\text{-CC}_6\text{H}_4\text{Me-4})(\mu_2\text{-Me}_3\text{SiC}_2\text{SiMe}_3)(\mu\text{-CO})(\text{CO})_6(\eta\text{-C}_5\text{H}_5)]$
John C. Jeffery, Kevin A. Mead, Hayat Razay, F. Gordon A. Stone, Michael J. Went, and Peter Woodward
- 869 Rhodium–Platinum Cluster Compounds. Relationships with Olefin–Platinum Complexes and *X*-Ray Crystal Structures of $[\text{PtRh}_4(\mu\text{-CO})_4(\eta\text{-C}_5\text{Me}_5)_4]$ and $[\text{PtRh}_2(\mu\text{-H})(\mu\text{-CO})_2(\text{CO})(\text{PPh}_3)(\eta\text{-C}_5\text{Me}_5)_2][\text{BF}_4]$
Michael Green, Judith A. K. Howard, Rona M. Mills, Geoffrey N. Pain, F. Gordon A. Stone, and Peter Woodward
- 871 Formation of η^6 -Arene-*closo*-carbaferaboranes by the Reaction of a *closo*-Carbaborane with Cyclooctadiene(η -cyclopentadienyl)iron in the Presence of Arenes: Molecular Structure of $[\text{closo-1-(}\eta^6\text{-PhMe)-2,4-Me}_2\text{-1,2,4-FeC}_2\text{B}_9\text{H}_9]$
Maria P. Garcia, Michael Green, F. Gordon A. Stone, Richard G. Somerville, and Alan J. Welch