

Journal of The Chemical Society

Chemical Communications

ISSUED TWICE MONTHLY

JCCCAT (17) 873-932 (1981)

CONTENTS

- Page
- 873 Dicyclobuta[*a,c*]anthracene **Christopher W. Doecke** and **Peter J. Garratt**
- 874 Manganese Porphyrin-catalysed Oxidation of Olefins to Ketones by Molecular Oxygen
M. Perrée-Fauvet and **A. Gaudemer**
- 875 Synthesis and Structure of a Chiral Sulphinamidocobalt(III) Complex derived from (*R*)-Cysteine
G. J. Gainsford, **W. G. Jackson**, and **A. M. Sargeson**
- 877 Stereoselective Synthesis of α,β -Unsaturated Esters **Marc Larchevêque** and **Alain Debal**
- 878 X-Ray Crystal Structure of 1,5-Dibromotetracyclo[4.2.2.2^{2,5}.0^{3,6}]dodecane
Michael G. Maturro, **Richard D. Adams**, and **Kenneth B. Wiberg**
- 880 A Novel Photochemical Route to Functionalised β -Lactams **John Brennan**
- 881 Activation of O₂ by a Binuclear Copper(I) Compound. Hydroxylation of a new Xylyl-binucleating Ligand to produce a Phenoxy-bridged Binuclear Copper(II) Complex; X-Ray Crystal Structure of [Cu₂(OC₆H₃[CH₂N(CH₂CH₂py)₂]₂-2,6)(OMe)] (py = 2-pyridyl)
Kenneth D. Karlin, **Phillip L. Dahlstrom**, **Stephen N. Cozette**,
Patricia M. Scensny, and **Jon Zubieta**
- 882 The Relationship between the Energies of Carbanions, R⁻, and their Lithiated Counterparts, RLi. An *Ab Initio* Study
Paul von Ragué Schleyer, **Jayaraman Chandrasekhar**, **Alexander J. Kos**,
Timothy Clark, and **Günther W. Spitznagel**
- 884 The Influence of Electron Delocalization on the Rate Constants for Competing *B_{Ac}2* and *Elcb* Ester Hydrolyses
Masashi Inoue and **Thomas C. Bruice**
- 886 Reaction of [Os₅(CO)₁₅H₂] with Acetylenes; X-Ray Crystal Structures of [Os₅(CO)₁₅H₂(CCPh)] and [Os₅(CO)₁₅(PhCCPh)₂]
David H. Farrar, **Glyn R. John**, **Brian F. G. Johnson**, **Jack Lewis**,
Paul R. Raithby, and **Maria J. Rosales**
- 888 Comparison of U.V.-Visible Spectra of Iron(I)-Porphyrin- and Iron(II)-Porphyrin(thiolato)-(thio-carbonyl) and -(carbene) Complexes. Relevance to Ferrous Cytochrome P450 Complexes
M. Lange, **J. P. Battioni**, **D. Mansuy**, **D. Lexa**, and **J. M. Saveant**
- 890 *Ab initio* Study of the Insertions of CH₂ and SiH₂ into H₂ **Mark S. Gordon**
- 891 Acid Catalysis induces a Total Change from Retention to Inversion of Configuration in CO₂ Elimination from β -Lactones
Johann Mulzer and **Matthias Zippel**
- 893 Synthesis and Molecular Structure of Mixed-valence Compounds of Rhenium Obtained by Di-iodine Oxidation of Rhenium(I) Carbonyl Complexes; X-Ray Crystal Structure of Re₃I₆(CO)₈
Fausto Calderazzo, **Fabio Marchetti**, **Rinaldo Poli**, **Dario Vitali**, and **Pier Francesco Zanazzi**
- 894 *ortho*-Formyl Substituted Arylazomethylenetriphenylphosphoranes: a Novel Facile Intramolecular Thermal Rearrangement with N=N Bond Fission
Andreina Alemagna, **Paola Del Buttero**, **Emanuela Licandro**, and **Stefano Maiorana**
- 895 Biosynthesis of Yamogenin, Neotokrogenin, and Their (25*R*)-Isomers from [1,2-¹³C₂]Acetate in *Dioscorea tokoro* Tissue Cultures
Shujiro Seo, **Kazuo Tori**, **Atsuko Uomori**, and **Yohko Yoshimura**
- 897 Nitrosyl-bridged Cyclopentadienyl-cobalt and -rhodium Cations
Sara Clamp, **Neil G. Connelly**, and **John D. Payne**
- 899 The Structure of Trichorabdal B and its Transformation into a Novel Skeleton; X-Ray Crystal Structures
Eiichi Fujita, **Kaoru Fuji**, **Midori Sai**, **Manabu Node**, **William H. Watson**,
and **Volker Zabel**

Contents—continued overleaf

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

Contents—continued

Page	
900	Nearly Regular Tetrahedral Geometry in a Gold(I)-Phosphine Complex. X-Ray Crystal Structure of Tetrakis(methyldiphenylphosphine)gold(I) Hexafluorophosphate R. C. Elder, E. H. Kelle Zeiher, Mark Onady, and Robert R. Whittle
901	Triorganotin Hydride Reduction of 6 β -Isothiocyanatopenicillanates: A Radical-induced Sulphur-C(2) Bond Cleavage D. Ivor John, Nicholas D. Tyrrell, and Eric J. Thomas
903	A Convenient Means of predicting the Position of the ⁷⁵ As Quadrupole Resonance in Co-ordination Compounds G�rard Jugie, Marcel Durand, Juan Ribas, and Ren� Mathieu
904	Efficient Synthesis of (\pm)-Solavetivone Akio Murai, Shingo Sato, and Tadashi Masamune
905	Early or Late Transition States in the Menshutkin Reaction. A Resolution of the Entropy Problem Michael H. Abraham and Asadollah Nasehzadeh
906	Synthesis of Acetic Acid from Methanol and Carbon Monoxide on Nickel-based Catalysts supported on Active Carbon Tomoyuki Inui, Hiroshi Matsuda, and Yoshinobu Takegami
907	Ruthenium-catalysed Oxidation of Allyl Alcohols by Molecular Oxygen Masakatsu Matsumoto and Satoru Ito
908	Ozonation in Alkaloid Chemistry: a Mild and Selective Conversion of Vincadifformine into Vincamine Bruno Danieli, Giordano Lesma, Giovanni Palmisano, and Bruno Gabetta
910	Deoxovanadium(IV) Complexes of the Dibenzotetramethyltetra-aza[14]annulene Ligand: Formation of Products containing Thioxo-, μ -Nitrido-, and Oxidatively Coupled Ligands Virgil L. Goedken and Judith A. Ladd
911	Broadening of N.M.R. Signals of Nuclei Coupled to Fast Relaxing Spin- $\frac{1}{2}$ Nuclei: An Example of T_1 Spin-decoupling Frank Brady, Ray W. Matthews, Mark J. Forster, and Duncan G. Gillies
912	Synthesis and X-Ray Crystal Structure of a (C_2)- C_{20} -Hexaquinane Derivative, a Potential Dodecahedrane Precursor M. Anthony McKervey, Pongsak Vibuljan, George Ferguson, and Pik Yuen Siew
914	Anditomin, a new C_{25} Metabolite from <i>Aspergillus varicolor</i> Thomas J. Simpson and Malcolm D. Walkinshaw
915	The Infra-red Multiphoton-induced Decomposition of Silicon-containing Four-membered Rings. A New Source of Silaolefins Henry M. Frey, Annoula Kashoulis, Lee Mei Ling, Susan P. Lodge, Ivy M. Pidgeon, and Robin Walsh
917	Direct ¹ H N.M.R. Observation of the Cell-free Conversion of δ -(L- α -Amino adipyl)-L-cysteinyl-D-valine and δ -(L- α -Amino adipyl)-L-cysteinyl-D-($-$)-isoleucine into Penicillins Gulam Bahadur, Jack E. Baldwin, Leslie D. Field, Eeva-M. M. Lehtonen, John J. Usher, Carlos A. Vallejo, Edward P. Abraham, and Robert L. White
920	Synthesis of $\Delta^{2,2'}$ -Bithieno[3,4- <i>d</i>]-1,3-dithiole (DTTTF) and Some of its Charge-transfer Salts Paul Shu, Long Chiang, Thomas Emge, Dennis Holt, Thomas Kistenmacher, Marsha Lee, James Stokes, Theodore Poehler, Aaron Bloch, and Dwaine Cowan
921	Solid-state Photo-polymerization of Unsaturated Organic Cations in Layer Perovskite Halide Salts Richard C. Ledsham and Peter Day
922	Total Synthesis of (\pm)-Prostaglandin I ₂ Methyl Ester and (\pm)-15-epi-Prostaglandin I ₂ Methyl Ester Roger F. Newton, Stanley M. Roberts, Basil J. Wakefield, and Geoffrey T. Woolley
924	Formaldehyde as a Hydrogen-donor to Aldehydes and Ketones in Metal-catalysed Reactions in Water John Cook and Peter M. Maitlis
925	X-Ray Crystal Structures of Bis(cyclopentadienyl)tin and Bis(pentamethylcyclopentadienyl)lead Jerry L. Atwood, William E. Hunter, Alan H. Cowley, Richard A. Jones, and Constantine A. Stewart
927	Synthesis and X-Ray Structure of an Azathiabenzene Derivative, a Cyclic Sulphimide Christopher J. Moody, Charles W. Rees, Siu Chung Tsoi, and David J. Williams
929	Wittig Reactions with β -Lactam Carbonyls: A Convenient Means of Protection. X-Ray Crystal Structure of <i>p</i> -Nitrobenzyl-(2 <i>R</i> ,5 <i>R</i>)- <i>Z</i> -7-Methoxycarbonylmethylene- <i>Z</i> -3-(β -phthalimidoeethylidene)-4-oxa-1-azabicyclo[3.2.0]heptane-2-carboxylate Martin L. Gilpin, John B. Harbridge, T. Trefor Howarth, and Trevor J. King
930	Monofluoro- and Difluoro-methylenebisphosphonic Acids: Isopolar Analogues of Pyrophosphoric Acid G. Michael Blackburn, David A. England, and Friedrich Kolkmann