

JOURNAL OF THE CHEMICAL SOCIETY

Chemical Communications

Number 11
1983

CONTENTS

- 601 The Pictet–Spengler Reaction in Carbohydrate Chemistry. Reactions of Sugars with Biogenic Amines **David B. MacLean, Walter A. Szarek, Ingemar Kvarnström**
- 602 Use of ^{13}C N.M.R. Spectral Editing Techniques as a Possible Procedure to follow the Fate of Deuterium Atoms in Mechanistic and Biosynthetic Studies **David M. Doddrell, James Staunton, Ernest D. Laue**
- 605 Specionin, an Iridoid Insect Antifeedant from *Catalpa speciosa* **Conway C. Chang, Koji Nakanishi**
- 606 Mechanism of Hydroboration in Ether Solvents. A Model *ab initio* Study **Timothy Clark, Dieter Wilhelm, Paul von Ragué Schleyer**
- 608 The Synthesis and X-Ray Crystal Structure of the Mixed-metal Cluster $[\text{Os}_8(\text{CO})_{22}(\text{AuPPh}_3)_2]$ **Brian F. G. Johnson, Jack Lewis, William J. H. Nelson, Paul R. Raithby, Maria D. Vargas**
- 610 The Photolysis of 2-Phenyltetrazole **Nobuko Koga, Gen Koga, James P. Springer, Byron H. Arison, Jean-Pierre Anselme**
- 612 Asymmetric Hydroformylation of Styrene by Chiral Platinum Catalysts: A Re-evaluation of the Optical Yields **Giambattista Consiglio, Piero Pino, Larry I. Flowers, Charles U. Pittman, Jr**
- 613 Copper(I) binds Carbon Monoxide in a Cubane-like Structure: Chemistry and X-Ray Crystal Structure of Tetrakis[(2-methylquinolin-8-olato)carbonylcopper(I)] **M. Pasquali, P. Fiaschi, C. Floriani, P. F. Zanazzi**
- 615 Biosynthesis of Fomajorin D: Incorporations of $[1-^{13}\text{C}]$ -, $[2-^{13}\text{C}]$ -, and $[1,2-^{13}\text{C}_2]$ -Acetates **Dervilla M. X. Donnelly, Joseph O'Reilly, Judith Polonsky, M. Helen Sheridan**
- 616 Reactions involving Oxidation of Hexa-aquamolybdenum(III): Kinetic and Mechanistic Studies **D. T. Richens, A. G. Sykes**
- 617 Formation of 10b-Bromomethyl-10c-methyl-10b,10c-dihydropyrenes from the Corresponding [2.2]Metacyclophanes **Masashi Tashiro, Takehiko Yamato**
- 619 A New Desulphonylation of α,β -Unsaturated Sulphones *via* Conjugate Addition of Tributylstannyl-lithium **Masahito Ochiai, Tatsuzo Ukita, Eiichi Fujita**
- 620 pK_A Measurements in Tetrahydrofuran **Robert R. Fraser, Monique Bresse, Tarek S. Mansour**
- 622 Stable Free Radicals of Phthalocyanine **Hiroshi Sugimoto, Teruaki Higashi, Masayasu Mori**
- 623 Low Temperature Catalytic Chemistry of the Pd(111) Surface: Benzene and Ethylene from Acetylene **Wilfred T. Tysoe, Graeme L. Nyberg, Richard M. Lambert**
- 625 A MNDO SCF-MO Theoretical Study of the Mechanism of [1,2] Migrations in Free Radicals as a Model for Coenzyme B_{12} Mediated Rearrangement Reactions **James J. Russell, Henry S. Rzepa, David A. Widdowson**
- 627 Regioselective Intramolecular Rearrangements in 1,2-Bis(areneazo)cyclohexenes derived from Oxidations of Cyclohexane-1,2-dione Bis(arylhydrazones) **Richard N. Butler, John P. James**
- 629 Preparative Flash Vacuum Thermolysis. Formation of 3-Noradamantylacetylene *via* Adamantylidene carbene **Jan Scharp, Ulfert E. Wiersum**
- 630 Total Synthesis of the Structurally Unique Ionophore Antibiotic X-14547 A **Martin P. Edwards, Steven V. Ley, Simon G. Lister, Brian D. Palmer**
- 633 Organic Metals: Conducting Complexes of Poly(2,5-thienylene sulphide) and Poly(2,5-thienylene selenide) **Kwan-Yue Jen, Nicholas Benfaremo, Michael P. Cava, Wu-Song Huang, A. G. MacDiarmid**
- 634 Stopping a Chromium Carousel: X-Ray Crystallographic and Variable-temperature ^{13}C N.M.R. Studies on Dicarboxyl(hexaethylbenzene)thiocarbonylchromium(0) and Related Complexes **Michael J. McGlinchey, John L. Fletcher, Brian G. Sayer, Peter Bougeard, Romolo Faggiani, Colin J. L. Lock, Alex D. Bain, Charles Rodger, Ernst Peter Kündig, Didier Astruc, Jean-René Hamon, Paul Le Maux, Siden Top, Gérard Jaouen**
- 636 The Role of Molecular Shape Similarity in Specific Molecular Recognition **Tadashi Endo, Hidetoshi Tasai, Kazuhiro Miyazawa, Masayuki Endo, Kotaro Kato, Akira Uchida, Yuji Ohashi, Yoshio Sasada**
- 638 Support Effects in the Formation of Methanol from Carbon Dioxide and Hydrogen over Rhenium Catalysts **Tokio Iizuka, Masanao Kojima, Kozo Tanabe**

- 639 Molecular Structures of the Main Group 4 Metal(II) Bis(trimethylsilyl)amides $M[N(\text{SiMe}_3)_2]_2$ in the Crystal (*X*-Ray) and Vapour (Gas-phase Electron Diffraction) **Torgny Fjeldberg, Håkon Hope, Michael F. Lappert, Philip P. Power, Andrew J. Thorne**
- 641 Preparation, Characterization, and *X*-Ray Crystal Structure of $\text{Ru}_2\text{H}_6\text{N}_2(\text{PPh}_3)_4$, a Compound containing Four Bridging Hydrides and a Ruthenium–Ruthenium Double Bond **Bruno Chaudret, Jean Devillers, René Poilblanc**
- 643 Ring Transformation of 2-Substituted Isothiazol-3(*2H*)-ones to 3,4-Dihydro-1,3-thiazin-4(*2H*)-ones by a Novel Carbene Addition–Ring Expansion Sequence **Wilfrid D. Crow, Ian Gosney, Raymond A. Ormiston**

AUTHOR INDEX

- Anselme, Jean-Pierre, 610
 Arison, Byron H., 610
 Astruc, Didier, 634
 Bain, Alex D., 634
 Benfaremo, Nicholas, 633
 Bougeard, Peter, 634
 Bresse, Monique, 620
 Butler, Richard N., 627
 Cava, Michael P., 633
 Chang, Conway C., 605
 Chaudret, Bruno, 641
 Clark, Timothy, 606
 Consiglio, Giambattista, 612
 Crow, Wilfrid D., 643
 Devillers, Jean, 641
 Doddrell, David M., 602
 Donnelly, Dervilla M. X., 615
 Edwards, Martin P., 630
 Endo, Masayuki, 636
 Endo, Tadashi, 636
 Faggiani, Romolo, 634
 Fiaschi, P., 613
 Fjeldberg, Torgny, 639
 Fletcher, John L., 634
 Floriani, C., 613
 Flowers, Larry I., 612
 Fraser, Robert R., 620
 Fujita, Eiichi, 619
 Gosney, Ian, 643
 Hamon, Jean-René, 634
 Higashi, Teruaki, 622
 Hope, Håkon, 639
 Huang, Wu-Song, 633
 Iizuka, Tokio, 638
 James, John P., 627
 Jaouen, Gérard, 634
 Jen, Kwan-Yue, 633
 Johnson, Brian F. G., 608
 Kato, Kotaro, 636
 Koga, Gen, 610
 Koga, Nobuko, 610
 Kojima, Masanao, 638
 Kündig, Ernst Peter, 634
 Kvarnström, Ingemar, 601
 Lambert, Richard M., 623
 Lappert, Michael F., 639
 Laue, Ernest D., 602
 Le Maux, Paul, 634
 Lewis, Jack, 608
 Ley, Steven V., 630
 Lister, Simon G., 630
 Lock, Colin J. L., 634
 MacDiarmid, A. G., 633
 McGlinchey, Michael J., 634
 MacLean, David B., 601
 Mansour, Tarek S., 620
 Miyazawa, Kazuhiro, 636
 Mori, Masayasu, 622
 Nakanishi, Koji, 605
 Nelson, William J. H., 608
 Nyberg, Graeme L., 623
 Ochiai, Masahito, 619
 Ohashi, Yuji, 636
 O'Reilly, Joseph, 615
 Ormiston, Raymond A., 643
 Palmer, Brian D., 630
 Pasquali, M., 613
 Pino, Piero, 612
 Pittman, Charles U., Jr, 612
 Poilblanc, René, 641
 Polonsky, Judith, 615
 Power, Philip P., 639
 Raithby, Paul R., 608
 Richens, D. T., 616
 Rodger, Charles, 634
 Russell, James J., 625
 Rzepa, Henry S., 625
 Sasada, Yoshio, 636
 Sayer, Brian G., 634
 Scharp, Jan, 629
 Schleyer, Paul von R., 606
 Sheridan, M. Helen, 615
 Springer, James P., 610
 Staunton, James, 602
 Sugimoto, Hiroshi, 622
 Sykes, A. G., 616
 Szarek, Walter A., 601
 Tanabe, Kozo, 638
 Tasai, Hidetoshi, 636
 Tashiro, Masashi, 617
 Thorne, Andrew J., 639
 Top, Siden, 634
 Tysoe, Wilfred T., 623
 Uchida, Akira, 636
 Ukita, Tatsuzo, 619
 Vargas, Maria D., 608
 Widdowson, David A., 625
 Wiersum, Ulfert E., 629
 Wilhelm, Dieter, 606
 Yamato, Takehiko, 617
 Zanazzi, P. F., 613

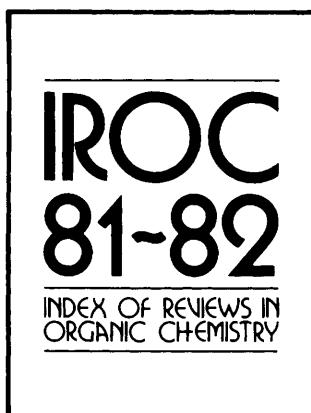
2 NEW Review Publications

from The Royal Society of Chemistry

Index of Reviews in Organic Chemistry 81-82 (IROC 81-82)

Softcover 160pp 0 85196 559 3
IROC 81-82 may be purchased individually or by subscription whereby users will automatically receive IROC 81-82 and the next two issues. A substantial discount is available to subscribers.
Price
IROC 81-82 (single issue only) £12.00 (\$21.00) p + p extra
IROC 81-82 + next two issues £24.00 (\$41.00) p + p extra
IROC 81-82 provides the organic chemist with an economical single volume source of recent review articles.

Orders should be sent to:
The Royal Society of Chemistry,
The University,
Nottingham NG7 2RD.



Index of Reviews in Organic Chemistry 81-82 is a successor to the Index of Reviews in Organic Chemistry edited by D. A. Lewis, the last issue of which was published in 1981. It contains information on review articles published in English, German or French during the period November 80 to December 82 which have been drawn from the chemical literature using a combination of manual and computerised search techniques.

Each entry includes the following information:-

- An index term
- An item number
- Title of the original document
- Bibliographic details
- A brief abstract if the scope of the review is not clear from the title
- An indication of the number of reviews cited in the original review

IROC (81-82) appears in two sections:

Section 1 covers individual compounds and classes of compounds. Section 2 covers chemical processes and phenomena, e.g. reaction types, spectra etc.

References within each section are arranged in alphabetical order of the index terms. Notes are included in the text to guide the user to preferred index terms, e.g. Olefins see Alkenes, Dienes see Alkadienes.

Also included is a list of books and conference proceedings with the following information:-

- Title
- Volume
- Year of Publication
- Editor (s)
- Publisher and publisher location
- Number of pages (if known)

All aspects of organic chemistry are covered including general organic chemistry, physical organic chemistry, aliphatic compounds, alicyclic compounds, aromatic compounds, bio-molecules, heterocyclic compounds, organometallic compounds, terpenes, alkaloids, steroids, carbohydrates, amino acids, peptides and proteins.

It is planned to publish future issues of IROC on an annual basis covering reviews published during the year. It is anticipated that each issue will contain approximately 1200 entries.

Index of Reviews in Analytical Chemistry 82 (IRAC 82)

Index of reviews in Analytical Chemistry 82 (IRAC 82) is the first issue of a new annual periodical which contains information on review articles dealing with analytical chemistry. IRAC 82 will contain approximately 580 references to review articles which have been published in English, German and French during the period January to December 82 and which have been drawn from the chemical literature by a combination of manual and computerised search techniques. Future issues will contain reviews published during the current year, or late in the previous year.

Each entry includes the following information:-

- An index term
- An item number
- Title of the original document
- Bibliographic details
- A brief abstract if the scope of the review is not clear from the title
- An indication of the number of reviews cited in the original review

The index is divided into two sections:

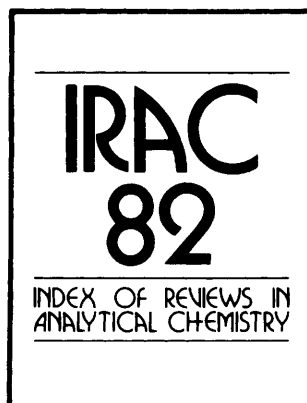
Section 1

Covers individual compounds, classes of compounds, materials and substance-related topics (e.g. clinical chemistry; forensic analysis; inorganic analysis).

Section 2

Covers apparatus, techniques and other items not easily assignable to Section 1.

All aspects of analytical chemistry are covered including inorganic, organic, biochemical, pharmaceutical, food, agricultural and environmental analysis; apparatus and techniques such as chromatography, spectroscopy, radiochemistry, electrochemistry, thermal analysis and particle size analysis. A list of books and conferences is also provided.



Softcover 48pp 0 85196 576 3
IRAC 82 may be purchased individually, or by subscription whereby users will automatically receive IRAC 82 and the next two issues. A substantial discount is available to subscribers.

PRICE
IRAC 82 (single issue only) £5.00 (\$9.00) p + p extra
IRAC 82 + next two issues £10.00 (\$17.00) p + p extra

IRAC 82 is a unique publication which provides the analytical chemist with rapid access to the review literature.

Orders should be sent to:
The Royal Society of Chemistry,
The University,
Nottingham NG7 2RD.

ROYAL SOCIETY OF CHEMISTRY

