

JOURNAL OF THE CHEMICAL SOCIETY

Chemical Communications

Number 16
1984

CONTENTS

- 1045 A New Type of Macrocyclic Polyether: Synthesis and Complexation of Alkali Metal Cations **Yohji Nakatsuji, Tsuneharu Mori, Mitsu Okahara**
- 1046 A New Synthesis of 1,2-Bisylidene cyclobutanes and their Application to the Construction of Polycyclic Ring Systems via Sequential Diels–Alder Reactions **Toru Minami, Yuki Taniguchi, Ichiro Hirao**
- 1047 Ready Syntheses of Benzoporphyrins via Diels–Alder Reactions with Protoporphyrin IX **Alan R. Morgan, Veronica Scherrer Pangka, David Dolphin**
- 1049 Trapping of Cyclopentadienone as a 4π Component in Diels–Alder Reactions with Ethyl Acrylate: a Simple Synthesis of (\pm)-Sarkomycin **Pier Giovanni Baraldi, Achille Barco, Simonetta Benetti, Gian Piero Pollini, Eleonora Polo, Daniele Simoni**
- 1050 Synthesis and Stability of *N*-Nitrosodipeptides **Brian C. Challis, James R. Milligan, Robert C. Mitchell**
- 1051 Chromatographic Resolution of Tris(acetylacetone)aluminium(III) on an Optically Active Poly(triphenylmethyl Methacrylate) Column **Yoshio Okamoto, Eiji Yashima, Koichi Hatada**
- 1053 Insertion of $P(CN)_3$ and $As(CN)_3$ as their Isonitrile Forms into the Dimer of Hexafluorothioacetone **Herbert W. Roesky, Kaveripatnam S. Dhatathreyan**
- 1054 Silver and Gold Cationic Diphosphene Complexes: Models for Protonation of the Phosphorus–Phosphorus Double Bond **Alan H. Cowley, Nicholas C. Norman, Marek Pakulski**
- 1055 *N,N*-Bis(trimethylsilyl)methoxymethylamine as a Convenient Synthetic Equivalent for $^+CH_2NH_2$: *N,N*-Bis(trimethylsilyl)aminomethylation of Silyl Sulphides and Phosphites **Toshiaki Morimoto, Masahiro Aono, Minoru Sekiya**
- 1056 The Stereochemistry of the Cyclic β -Halogeno-ether Synthesis of Olefinic Alcohols **Leslie Crombie, Robert D. Wyvill**
- 1058 Total Synthesis of the Marine Natural Product (\pm)-Precapnelladiene **Goverdhan Mehta, A. Narayana Murty**
- 1060 Evidence for a *D*-Mechanism in the Substitution of Methanol by Pyridyl Ligands in Cobalt(III)(protoporphyrin IX dimethyl ester)(methanol)(methoxo) Complex in Methanol **Zdravko Dokuzović, Dušanka Pavlović, Smiljko Ašperger, Ivo Murati**
- 1062 Termolecular Trapping of Benzylchlorocarbene by Methanol **Michael T. H. Liu, Ramasamy Subramanian**
- 1064 Novel Desulphurization of Thiourea Derivatives by Alkaline Autoxidation **Yong Hae Kim, Hyung Jin Kim, Gyu Hwan Yon**
- 1066 *In situ* Generation and Reactions of Hexynylcyanoketene **Nghi V. Nguyen, Harold W. Moore**
- 1067 Photo-activated Valence Isomerization of Hexamethyl(Dewar benzene) (HMDB) assisted by Arene–Iron(II) Complexes: Luminescence Properties of $[HMDB \cdots (\eta^5-C_5R_5)\overset{\ddagger}{Fe}(\eta^6\text{-arene})]^*$ Adducts **Enrique Román, Sergio Hernández, Mauricio Barrera**
- 1069 Calculated and Experimental Equilibrium Steric Isotope Effects for Carbon in *cis*-1-[^{13}C]Methyl-4-methylcyclohexane **Stephen L. R. Ellison, Michael S. Fellows, Michael J. T. Robinson, Martin J. Widgery**
- 1070 A New Easy Method for the Synthesis of Cyclic Halogenoethers and Halogenolactones **Morris Srebnik, Raphael Mechoulam**
- 1072 Intramolecular Trapping of *N*-Nitrenes: Trapping by a Remote 2,4-Dimethoxyphenyl Ring **Robert S. Atkinson, John Fawcett, Nagwa A. Gawad, David R. Russell, Lesley J. S. Sherry**
- 1073 Rhodium- and Palladium-catalysed Formation of Conjugated Mono- and Bis-exocyclic Dienes. *5-Exo-Trig versus 6-Endo-Trig* Cyclisations **Ronald Grigg, Paul Stevenson, Tanachat Worakun**
- 1075 $^1H/^2H$ COSY: a New N.M.R. Method for locating Deuterium Nuclei in Labelling Studies **Steven J. Gould, Venkatapuram A. Palaniswamy, Hermann Bleich, Joyce Wilde**
- 1077 Selective Brominative Cyclization of Polyenes assisted by Acetonitrile. Application to the Synthesis of Acoratriene **Tadahiro Kato, Masashi Mochizuki, Takumi Hirano, Shigeki Fujiwara, Tadao Uyehara**
- 1079 Non-chelation-control in Nucleophilic Additions to Chiral α - and β -Alkoxy Aldehydes **Manfred T. Reetz, Kurt Kesseler**
- 1080 Synthesis of the First Example of a Metal Complex containing a Co-ordinated μ_3 (η^2 - \perp) Phospha-alkyne Ligand. Addition of an $Fe_2(CO)_6$ Unit to the η^2 -Phospha-alkyne Complex $[Pt(dppe)(Bu^CP)]$: Crystal and Molecular Structure of $[Fe_2Pt(dppe)(CO)_6(Bu^CP)]$ ($dppe = Ph_2PCH_2CH_2PPh_2$) **Saud I. Al-Resayes, Peter B. Hitchcock, Mohamed F. Meidine, John F. Nixon**
- 1082 Synthesis, Chemical Behaviour, and Structure (Crystal and Solution) of a Fluorouranocene(IV) Tetrafluoroborate; *X*-Ray Crystal Structure of $[\{Ucp''_2(\mu-BF_4)(\mu-F)\}_2]$ [$cp'' = \eta$ - $C_5H_3(SiMe_3)_2$] **Peter B. Hitchcock, Michael F. Lappert, Richard G. Taylor**
- 1084 The Reaction of 2,3-Disubstituted 1,2-Thiazetidine 1,1-Dioxides with Butyl-lithium **Eberhard Meyle, Hans-Hartwig Otto**
- 1085 Reduction of NO_x over Alkali Metal–Carbon Systems **Freek Kapteijn, Alexander J. C. Mierop, Gert Abbel, Jacob A. Moulijn**

- 1086 Crystal, Molecular, and Electronic Structure of $[Ta_2Cl_4(\mu-Cl)_4(PMe_3)_4]$: a Metal–Metal Single Bond between Eight-coordinate Tantalum Atoms **Peter D. W. Boyd, Tony C. Jones, Alastair J. Nielson, Clifton E. F. Rickard**
- 1088 Use of Silyl Enol Ethers for the Synthesis of β -Acyl Anion Equivalents **G. Trimitsis, S. Beers, J. Ridella, M. Carlon, D. Cullin, J. High, D. Brutts**
- 1089 The Synthesis and X-Ray Structure Analysis of $Os_6(CO)_{17}(NC_5H_5)_2$: a Cluster Compound with an Unusual Mode of Metal–CO Bonding **Brian F. G. Johnson, Jack Lewis, Mary McPartlin, Mary-Ann Pearsall, Angelo Sironi**
- 1091 Echinolactone A and B: Isolation and Structures of Two Novel Lactones from the Marine Coelenterate *Echinopora lamellosa* **R. Sanduja, A. J. Weinheimer, M. Alam, M. B. Hossain, D. van der Helm**
- 1093 Investigation of the Dealumination of High Silica Zeolite A (ZK-4) by ^{29}Si Magic-angle-spinning N.M.R. Spectroscopy **C. A. Fyfe, G. J. Kennedy, G. T. Kokotailo, C. T. DeSchutter**
- 1095 Michael Additions of Hydrazones for Carbon–Carbon Bond Formation **Jack E. Baldwin, Robert M. Adlington, Jeffrey C. Bottaro, Ashok U. Jain, Jayant N. Kolhe, Matthew W. D. Perry, Ian M. Newington**
- 1097 Binding of Acetylcholine and other Molecular Cations by a Macroyclic Receptor Molecule of Speleand Type **Michel Dhaenens, Liliane Lacombe, Jean-Marie Lehn, Jean-Pierre Vigneron**
- 1099 Discotic Liquid Crystals of Organocopper Complexes: the Substituent Effects **Kazuchika Ohta, Akinori Ishii, Iwao Yamamoto, Kei Matsuzaki**
- 1101 An Optical Study of the Arsenic Pentafluoride Doping of Poly(*p*-phenylene sulphide): Polaron and Bipolaron Transitions **Richard H. Friend, Jeremy R. M. Giles**
- 1103 Synthesis of a 53-Residue Peptide with EGF Activity **Haruaki Yajima, Kenichi Akaji, Nobutaka Fujii, Kyozo Hayashi, Kazuhiko Mizuta, Mitsuhiro Aono, Motoyuki Moriga**
- 1105 1-Chloro-1,3-bis(dimethylamino)-2-azapropenylium Salts: Intermediates for the Synthesis of 1,3,5-Triazines, Pyrimidines, Isoquinolines, Quinazolines, and a 1,3,5-Thiadiazinium Salt **Gerhard V. Boyd, Peter F. Lindley, George A. Nicolaou**
- 1107 Geminate Reverse Electron Transfer in a Photogenerated Ion-Pair. Mechanism of 1,4-Dicyanonaphthalene Sensitized Ylide Formation from Stilbene Oxides **Challa V. Kumar, Swapan K. Chattopadhyay, Paritosh K. Das**
- 1109 Cyclopropyl Activation of Adjacent Methylene Groups in Spiro[*n.n*]alkanes and Bicyclo[*n.1.0*]alkanes **Charles Roberts, John C. Walton**
- 1111 Synthesis and Chiral Recognition of Optically Active Crown Ethers incorporating a Biphenanthryl Moiety as the Chiral Centre **Koji Yamamoto, Hitoshi Fukushima, Yoshio Okamoto, Koichi Hatada, Masao Nakazaki**
- 1113 The Synthesis and Reactions of an Anionic Tungsten–Carbyne Complex Stabilised by the Carbaborane Ligand 1,2-C₂B₉H₉Me₂; Evidence for a Novel Cage Hydroboration Reaction **Michael Green, Judith A. K. Howard, Alun P. James, Christine M. Nunn, F. Gordon A. Stone**
- 1115 Anion Inclusion without Auxiliary Hydrogen Bonds: X-Ray Structure of the Iodide Cryptate of a Macrotricyclic Tetra-quaternary Ammonium Receptor **Franz Peter Schmidtchen, Gerhard Müller**
- 1116 A Tetrานuclear Polyfunctional Sodium–Vanadium(III) Complex containing a Vanadium(III)–Vanadium(III) Double Bond **Sandro Gambarotta, Mazinella Mazzanti, Carlo Floriani, Margareta Zehnder**
- 1119 Methodology for the Synthesis of the Spiro[4.4]nonane System: an Approach for the Total Synthesis of Fredericamycin A **A. V. Rama Rao, D. Reddeppa Reddy, V. H. Deshpande**
- 1120 Deoxygenation of 1,4-Endoperoxides to 1,3-Dienes by Low-valent Titanium **Ricardo Riguera, Emilio Quiñoá, Luis Castedo**
- 1122 Stereocontrol at ‘Off-template’ Sites in 1,2-O-Isopropylidene Glycosuranooses **Michael Georges, Tim Fat Tam, Bert Fraser-Reid**
- 1123 An Optically Active Synthon for the Ubiquitous Hemiacetal Moiety of Polyene Macrolides **David Liang, Henry W. Pauls, Bert Fraser-Reid**
- 1125 Charge-induced Change of Rearrangement Mechanism in the Barbaralyl System **Göran Jonsäll, Per Ahlberg**
- 1127 Stereospecific Trisalkylation of Pentaborane(9) using Lithium Triethylhydridoborate **Donald F. Gaines, Gail A. Steehler**
- 1128 The Structure of Spirosupinanonediol, a Triterpenoid bearing a Novel Skeletal System from *Euphorbia supina* **Shunyo Matsunaga, Reiko Morita, Toshimasa Ishida, Masatoshi Inoue, Masataka Shigi, Akira Miyamae**
- 1130 Highly Diastereofacial Selective Addition of Nucleophiles to 2-Alkyl-3-trimethylsilylalk-3-enyl Carbonyl Compounds. Stereoselective Preparation of β -Methylhomallyl Alcohols and β -Hydroxy- α -methyl Ketones **Fumie Sato, Masato Kusakabe, Yuichi Kobayashi**
- 1132 Stereo- and Regio-controlled Aldol Synthesis using Relative 1,2-Asymmetric Induction **Fumie Sato, Yoshiyuki Takeda, Hiroshi Uchiyama, Yuichi Kobayashi**
- 1135 Intramolecular Thermal Oxidoreduction of *N*-(2-Hydroxypropyl)- β -enaminoesters: Synthesis of *N*-(Acetonyl)- β -enaminoaldehydes and 2-Acetylpyrroles **Alain Maujean, Catherine Grosdemange-Pale, Guy Marcy, Josselin Chuche**

AUTHOR INDEX

- Abbel, Gert, 1085
 Adlington, Robert M., 1095
 Ahlberg, Per, 1125
 Akaji, Kenichi, 1103
 Alam, M., 1091
 Al-Resayes, Saud I., 1080
 Aono, Masahiro, 1055
 Aono, Mitsuru, 1103
 Ašperger, Smiljko, 1060
 Atkinson, Robert S., 1072
 Baldwin, Jack E., 1095
 Baraldi, Pier Giovanni, 1049
 Barco, Achille, 1049
 Barrera, Mauricio, 1067
 Beers, S., 1088
 Benetti, Simonetta, 1049
 Bleich, Hermann, 1075
 Bottaro, Jeffrey C., 1095
 Boyd, Gerhard V., 1105
 Boyd, Peter D. W., 1086
 Brutts, D., 1088
 Carlon, M., 1088
 Castedo, Luis, 1120
 Challis, Brian C., 1050
 Chattopadhyay, Swapani K., 1107
 Chuche, Josselin, 1135
 Cowley, Alan H., 1054
 Crombie, Leslie, 1056
 Cullin, D., 1088
 Das, Paritosh K., 1107
 DeSchutter, C. T., 1093
 Deshpande, V. H., 1119
 Dhaenens, Michel, 1097
 Dhathathreyan, Kaveripatnam S., 1053
 Dokuzović, Zdravko, 1060
 Dolphin, David, 1047
 Ellison, Stephen L. R., 1069
 Fawcett, John, 1072
 Fellows, Michael S., 1069
 Floriani, Carlo, 1116
 Fraser-Reid, Bert, 1122, 1123
 Friend, Richard H., 1101
 Fujii, Nobutaka, 1103
 Fujiwara, Shigeki, 1077
 Fukushima, Hitoshi, 1111
 Fyfe, C. A., 1093
 Gaines, Donald F., 1127
 Gambarotta, Sandro, 1116
 Gawad, Nagwa A., 1072
 Georges, Michael, 1122
 Giles, Jeremy R. M., 1101
 Gould, Steven J., 1075
 Green, Michael, 1113
 Grigg, Ronald, 1073
 Grosdemange-Pale, Catherine, 1135
 Hatada, Koichi, 1051, 1111
 Hayashi, Kyozo, 1103
 Hernández, Sergio, 1067
 High, J., 1088
 Hirano, Takumi, 1077
 Hirao, Ichiro, 1046
 Hitchcock, Peter B., 1080, 1082
 Hossain, M. B., 1091
 Howard, Judith A. K., 1113
 Inoue, Masatoshi, 1128
 Ishida, Toshimasa, 1128
 Ishii, Akinori, 1099
 Jain, Ashok U., 1095
 James, Alun P., 1113
 Johnson, Brian F. G., 1089
 Jones, Tony C., 1086
 Jonsäll, Göran, 1125
 Kapteijn, Freek, 1085
 Kato, Tadahiro, 1077
 Kennedy, G. J., 1093
 Kesseler, Kurt, 1079
 Kim, Hyung Jin, 1064
 Kim, Yong Hae, 1064
 Kobayashi, Yuichi, 1130, 1132
 Kokotailo, G. T., 1093
 Kolhe, Jayant N., 1095
 Kumar, Challa V., 1107
 Kusakabe, Masato, 1130
 Lacombe, Liliane, 1097
 Lappert, Michael F., 1082
 Lehn, Jean-Marie, 1097
 Lewis, Jack, 1089
 Liang, David, 1123
 Lindley, Peter F., 1105
 Liu, Michael T. H., 1062
 McPartlin, Mary, 1089
 Marcy, Guy, 1135
 Matsunaga, Shunyo, 1128
 Matsuzaki, Kei, 1099
 Maujean, Alain, 1135
 Mazzanti, Mazinella, 1116
 Mechoulam, Raphael, 1070
 Mehta, Goverdhan, 1058
 Meidine, Mohamed F., 1080
 Meyle, Eberhard, 1084
 Mierop, Alexander J. C., 1085
 Milligan, James R., 1050
 Minami, Toru, 1046
 Mitchell, Robert C., 1050
 Miyamae, Akira, 1128
 Mizuta, Kazuhiko, 1103
 Mochizuki, Masashi, 1077
 Moore, Harold W., 1066
 Morgan, Alan R., 1047
 Moriga, Motoyuki, 1103
 Morimoto, Toshiaki, 1055
 Morita, Reiko, 1128
 Mori, Tsuneharu, 1045
 Moulijn, Jacob A., 1085
 Müller, Gerhard, 1115
 Murati, Ivo, 1060
 Murty, A. Narayana, 1058
 Nakatsuji, Yohji, 1045
 Nakazaki, Masao, 1111
 Newington, Ian M., 1095
 Nguyen, Nghi V., 1066
 Nicolaou, George A., 1105
 Nielson, Alastair J., 1086
 Nixon, John F., 1080
 Norman, Nicholas C., 1054
 Nunn, Christine M., 1113
 Ohta, Kazuchika, 1099
 Okahara, Mitsuo, 1045
 Okamoto, Yoshio, 1051, 1111
 Otto, Hans-Hartwig, 1084
 Pakulski, Marek, 1054
 Palaniswamy, Venkatapuram A., 1075
 Pangka, Veronica Scherrer, 1047
 Pauls, Henry W., 1123
 Pavlović, Dušanka, 1060
 Pearsall, Mary-Ann, 1089
 Perry, Matthew W. D., 1095
 Pollini, Gian Piero, 1049
 Polo, Eleonora, 1049
 Quiñoá, Emilio, 1120
 Rao, A. V. Rama, 1119
 Reddy, D. Reddeppa, 1119
 Reetz, Manfred T., 1079
 Rickard, Clifton E. F., 1086
 Ridella, J., 1088
 Riguera, Ricardo, 1120
 Roberts, Charles, 1109
 Robinson, Michael J. T., 1069
 Roesky, Herbert W., 1053
 Román, Enrique, 1067
 Russell, David R., 1072
 Sanduja, R., 1091
 Sato, Fumie, 1130, 1132
 Schmidtchen, Franz Peter, 1115
 Sekiya, Minoru, 1055
 Sherry, Lesley J. S., 1072
 Shigi, Masataka, 1128
 Simoni, Daniele, 1049
 Sironi, Angelo, 1089
 Srebnik, Morris, 1070
 Steehler, Gail A., 1127
 Stevenson, Paul, 1073
 Stone, F. Gordon A., 1113
 Subramanian, Ramasamy, 1062
 Takeda, Yoshiyuki, 1132
 Tam, Tim Fat, 1122
 Taniguchi, Yuki, 1046
 Taylor, Richard G., 1082
 Trimitsis, G., 1088
 Uchiyama, Hiroshi, 1132
 Uyehara, Tadao, 1077
 van der Helm, D., 1091
 Vigneron, Jean-Pierre, 1097
 Walton, John C., 1109
 Weinheimer, A. J., 1091
 Widgery, Martin J., 1069
 Wilde, Joyce, 1075
 Worakun, Tanachat, 1073
 Wyvill, Robert D., 1056
 Yajima, Haruaki, 1103
 Yamamoto, Iwao, 1099
 Yamamoto, Koji, 1111
 Yashima, Eiji, 1051
 Yon, Gyu Hwan, 1064
 Zehnder, Margareta, 1116

NEW Publications

from The Royal Society of Chemistry

Specialist Periodical Reports

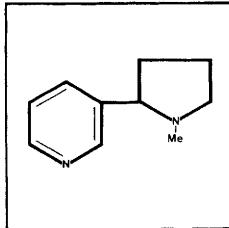
The Alkaloids Vol. 13

Senior Reporter: M. F. Grundon

A review of the literature published during the period July 1981 and June 1982.

Brief Contents:

Biosynthesis; Pyrrolidine, Piperidine, and Pyridine Alkaloids; Tropane Alkaloids; Pyrrolizidine Alkaloids; Indolizidine Alkaloids; Quinolizidine Alkaloids; Quinoline and Acridine Alkaloids; β -Phenylethylamines and the Isoquinoline Alkaloids; Aporphine Alkaloids; Amaryllidaceae Alkaloids; *Erythrina* and Related Alkaloids; Indole Alkaloids; *Lycopodium* Alkaloids; Diterpenoid Alkaloids; Steroidal Alkaloids; Miscellaneous Alkaloids.



"The Royal Society of Chemistry publication on *The Alkaloids* is the central point of the alkaloid year."—J. David Phillipson, *University of London*, reviewing Vol. 10.

Hardcover 343pp 0 85186 367 1

Price £33.00 (\$59.00)

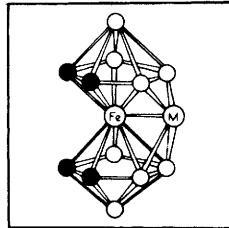
RSC Members £19.00

Organometallic Chemistry Vol. 11

Senior Reporters: E. W. Abel and F. G. A. Stone.
A review of the literature published during 1981.

Brief Contents:

Group I: The Alkali and Coinage Metals; Group II: The Alkaline Earths and Zinc and its Congeners; Group III: Boron; The Carbaboranes, including their Metal Complexes; Group III: Alluminium, Gallium, Indium, and Thallium; Group IV: The Silicon Group; Arsenic, Antimony, and Bismuth; Metal Carbonyls; Organometallic Compounds containing Metal—Metal Bonds; Substitution Reactions of Metal and Organometallic Carbonyls with Group V and VI Ligands; Sigma-Bonded Organometallic Compounds of Transition Elements of Groups IIIA to VIIA; Complexes containing Metal-Carbon σ -Bonds of the Groups Iron;



Cobalt, and Nickel; Metal—Hydrocarbon π -Complexes, π -Cyclopentadienyl, π -Arene, and Related Complexes; Homogeneous Catalysis by Transition-metal Complexes; Organometallic Compounds in Biological Chemistry; Diffraction Studies of Organometallic Compounds.

"All organometallic chemists will want to read all or parts of this book."—D. A. Sweigart, *J. Am. Chem. Soc.*, reviewing Vol. 9.

Hardcover 567pp 0 85186 591 7

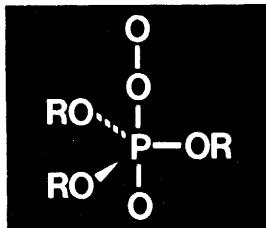
Price £77.00 (\$138.00) RSC Members £38.00

Organophosphorus Chemistry Vol. 14

Senior Reporters: D. W. Hutchinson and J. A. Miller
A review of the literature published between July 1981 and June 1982.

Brief Contents:

Phosphines and Phosphonium Salts; Quinque-covalent Phosphorus Compounds; Halogenophosphines and Related Compounds; Phosphine Oxides and Related Compounds; Tervalent Phosphorus Acids; Quinquevalent Phosphorus Acids; Phosphates and Phosphonates of Biochemical Interest; Nucleotides and Nucleic Acids; Ylides and Related Com-



pounds; Mass Spectrometry of Organophosphorus Compounds; Physical Methods.

"The whole series of volumes represents an extremely useful reference work on progress in this area of chemistry over the past 10 years and, ideally, every chemist active in the field should keep a set of these volumes on his bookshelf."—Kurt Moederitzer, *Monsanto Company*, reviewing Vol. 10.

Hardcover 360pp 0 85186 126 1

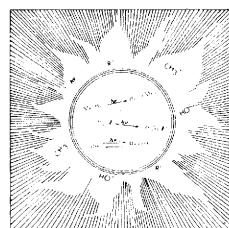
Price £56.00 (\$100.00) RSC Members £34.00

Photochemistry Vol. 14

Senior Reporter: D. Bryce-Smith
A review of the literature published between July 1981 and June 1982.

Brief Contents:

Part I: Physical Aspects of Photochemistry; Part II: Photochemistry of Inorganic and Organometallic Compounds; Part III: Organic Aspects of Photochemistry; Part IV: Polymer Photochemistry; Part V: Photochemical Aspects of Solar Energy Conversion.



"The latest in this series of reviews of literature continues to be indispensable to physical and organic photochemists and makes interesting reading for those active on the periphery of this subject."—David I. Schuster, *Jnl. of Medicinal Chemistry*, reviewing Vol. 10.

Hardcover 592pp 0 85186 125 3

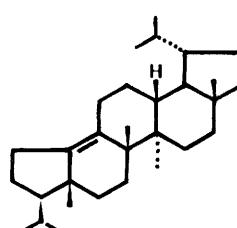
Price £88.00 (\$157.00) RSC Members £46.00

Terpenoids and Steroids Vol. 12

Senior Reporter: J. R. Hanson
A review of the literature published between September 1980 and August 1981.

Brief Contents:

Part I: Terpenoids: Monoterpenoids; Sesquiterpenoids; Diterpenoids; Triterpenoids; Carotenoids and Polyterpenoids; Part II: Steroids: Physical Methods; Steroid Reactions and Partial Syntheses.



"Everyone interested in the chemistry of terpenoids and/or steroids should have access to this volume and the others in the series."—Norman J. Doorenbos, *Jnl. of Pharmaceutical Sciences*, reviewing Vol. 10.

Hardcover 366pp 0 85186 356 6

Price £56.00 (\$100.00)

RSC Members £34.00



ROYAL
SOCIETY OF
CHEMISTRY