

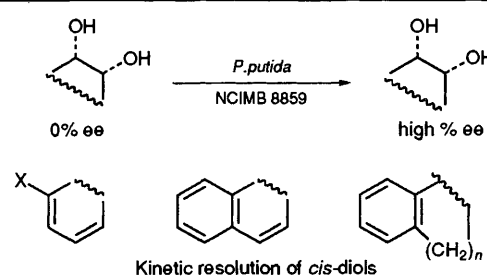
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Number 2
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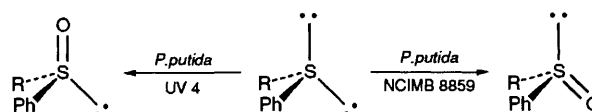
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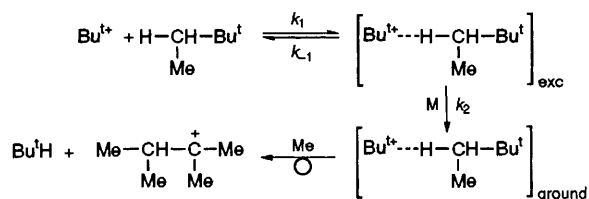
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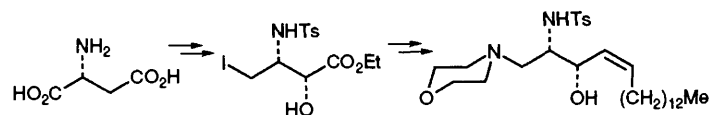
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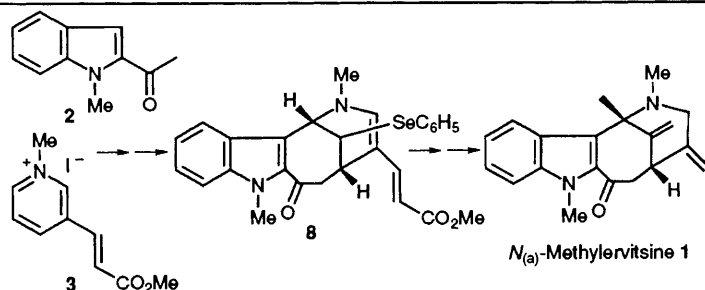
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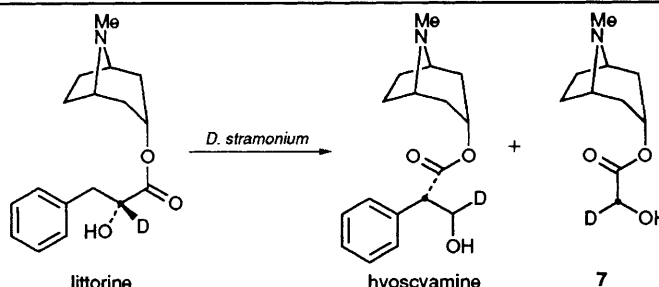
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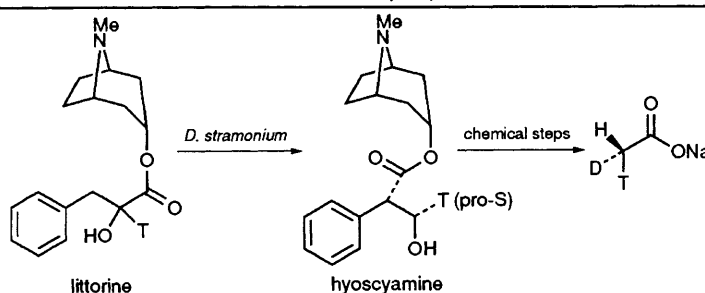
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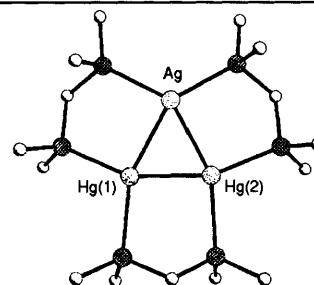
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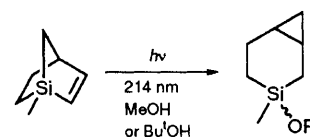
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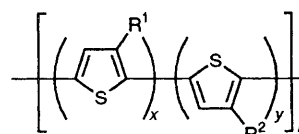
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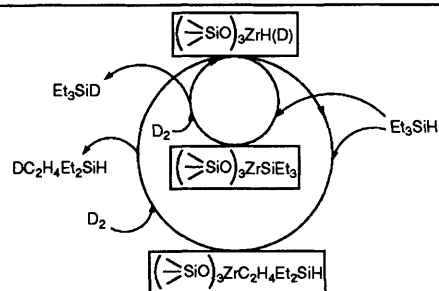
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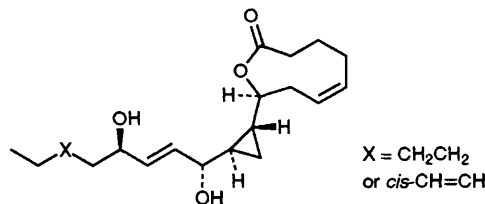
$R^1, R^2 = n\text{-alkyl}$

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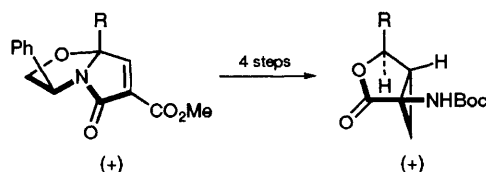
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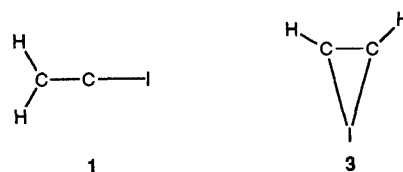
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Mazen Es-Sayed, Paul Devine, Laurence E. Burgess, Armin de Meijere, A. I. Meyers

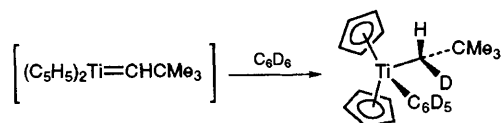
- 143 **On the C₂H₂I⁺ Potential Energy Hypersurface. An *ab initio* Study**



Pedro J. Campos, Miguel A. Rodríguez

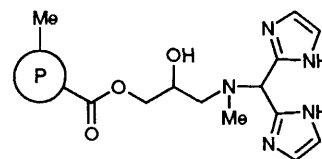
According to our calculations, 1 and 3 should be the more stable structures

- 145 **Intermolecular C–H Activation by Reactive Titanocene Alkydene Intermediates**



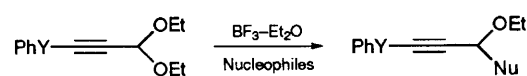
Harry van der Heijden, Bart Hessen

- 147 **A Novel, Highly Copper(II)-selective Chelating Hydrophilic Ion Exchanger based on Imidazole modified Poly(glycidyl methacrylate)**



Petronella M. van Berkel, Willem L. Driessen, Anthony G. J. A. Kodhaas, Jan Reedijk, David C. Sherrington

Anchoring the imidazole ligand bis(imidazol-2-yl)methylaminomethane onto poly(glycidyl methacrylate-*co*-trimethylpropane trimethacrylate) by a ring-opening reaction of the pendant epoxy group with the secondary amine group of the ligand, results in a highly Cu^{II}-selective hydrophilic resin.

149 **A Reaction of γ -Chalcogen-substituted Prop-2-ynyl Cations with Mild Nucleophiles**

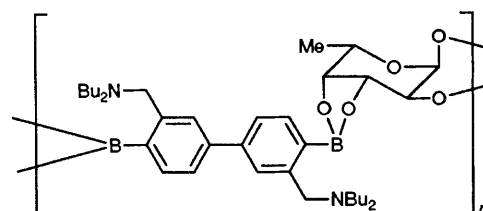
Y = S, Se; Nu: alkyl, allyl and enol ether, S^-Ph , and Se^-Ph

Mitsuhiro Yoshimatsu, Hiroshi Shimizu, Tadashi Kataoka

151 **Synthesis and Characterization of a Novel Vanadium Analogue of ALPO-31**

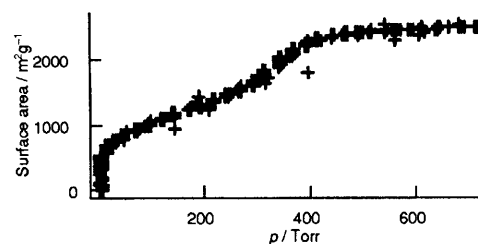
A new vanadium analogue of ALPO-31 molecular sieve is synthesized and characterized by physicochemical methods and catalytic properties.

N. Venkatathri, S. G. Hegde, S. Sivasanker

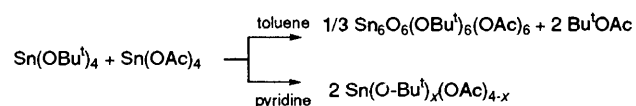
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Polymer structure resulting from **1** and L-fucose

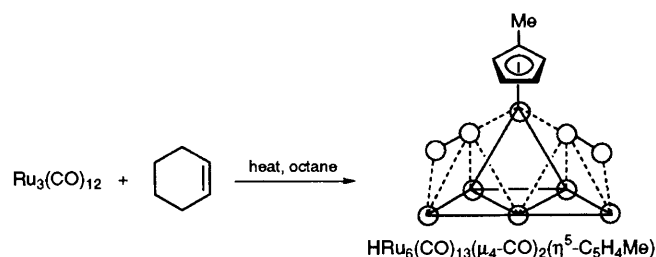
Masafumi Mikami, Seiji Shinkai

155 **Room-temperature Formation of Molecular Sieve MCM-41**

Karen J. Edler, John W. White

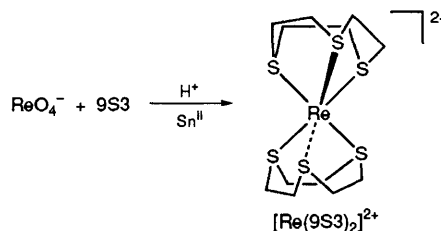
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James Caruso, Mark J. Hampden-Smith, Arnold L. Rheingold, Glenn Yap

159 **The Synthesis and Characterisation of $\text{Ru}_6(\mu_3\text{-H})(\mu_4\text{-}\eta^2\text{-CO})_2(\text{CO})_{13}(\eta^5\text{-C}_5\text{H}_4\text{Me})$ —an Example of Cluster Mediated Ring Contraction**

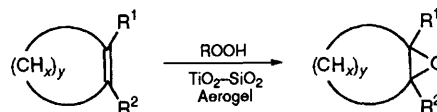
Scott L. Ingham, Brian F. G. Johnson, Caroline M. Martin, David Parker

- 161 **Crown Thioether Chemistry: Rhenium(II) Bis-(1,4,7-Trithiacyclononane), the First Homoleptic Thioether Complex of Rhenium**



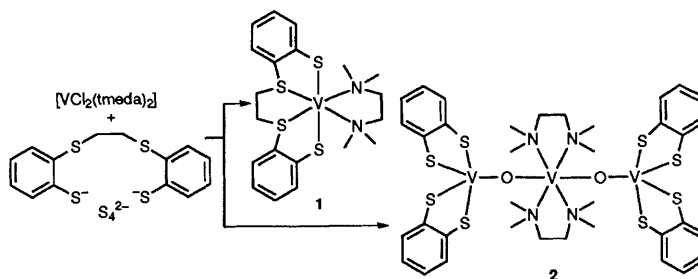
Simba O. C. Matondo, Philip Mountford, David J. Watkin, William B. Jones, Stephen R. Cooper

- 163 **Novel Mesoporous Titania–Silica Aerogels Highly Active for the Selective Epoxidation of Cyclic Olefins**



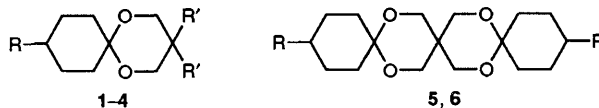
R. Hutter, D. C. M. Dutoit, T. Mallat, M. Schneider, A. Baiker

- 165 **Coordination and Oxidation of Vanadium(II) by 1,2-Bis(2-sulfidophenylsulfanyl)ethane(2-) (S₄): the Structures of [V(S₄)tmeda], the First Example of Vanadium(II)–Sulfide Coordination, and of [V₃(μ-O)₂(S₂)₄(tmeda)₂] (S₂ = 1,2-benzenedithiolate(2-))**



Wenerios Tsagkalidis, Dieter Rodewald, Dieter Rehder

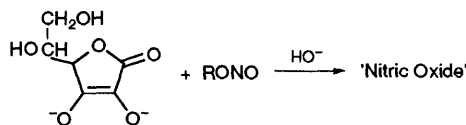
- 167 **Axial and Helical Chirality of some Spiro-1,3-Dioxanes**



Ion Grosu, Sorin Mager, Gerard Plé, Mihai Horn

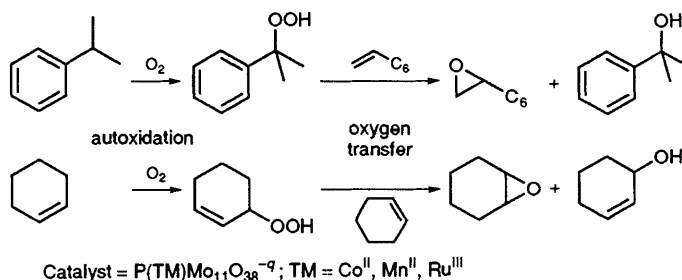
Axial and helical chirality of spiranic compounds with six-membered rings (1–6) is discussed.

- 169 **Fast Formation of NO in Reactions of Alkyl Nitrites with Ascorbic Acid and Analogues**



J. Ramón Leis, Ana Ríos

- 171 **Transition Metal Substituted Keggin Type Polyoxomolybdates as Bifunctional Catalysts for the Epoxidation of Alkenes by Molecular Oxygen**



Ronny Neumann, Mazal Dahan

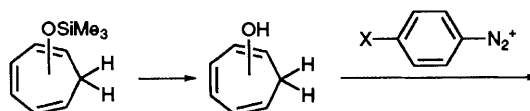
- 173 **Efficient Cleavage of Carbon Graphene Layers by Oxidants**



Kuo

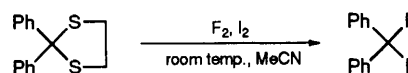
of

- 175 **Diazo-coupling Reactions of Cycloheptatrienols: a Combined Experimental and Theoretical Study**



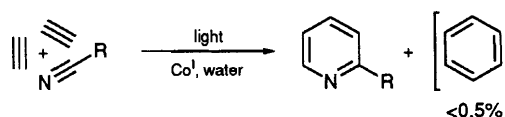
Calvin

- 177 **Difluoromethylene**
of



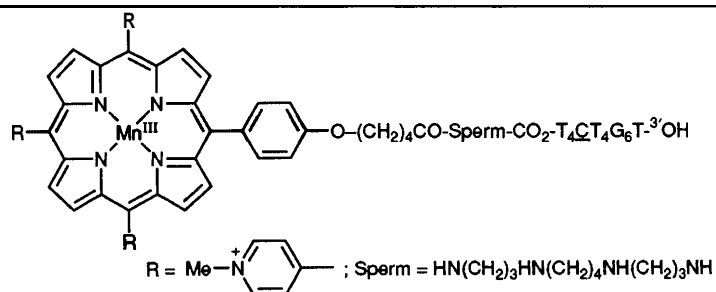
Richard D. Chambers, Graham Sandford,
Malcolm Atherton

- 179 **First Cobalt(I)-catalysed Heterocyclotrimerization of Ethyne with Nitriles to Pyridines in Water under Mild Conditions**



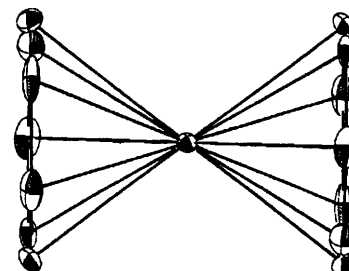
Barbara Heller, Günther Oehme

- 1 **DNA**

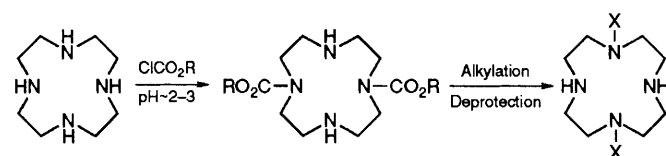


Pascal Bigey, Genevieve Pratviel, Bernard Meunier

- 183 **Synthesis and Crystal Structure of $[K(C_{12}H_{24}O_6)] \cdot [U(\eta-C_7H_7)_2]$, The First Cycloheptatrienyl Sandwich Compound**

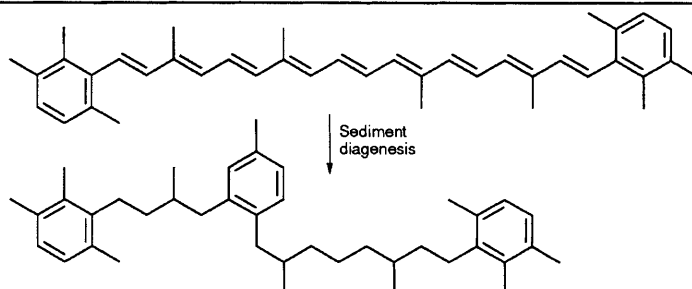


Thérèse Arliguie, Monique Lance, Martine Nierlich, Julien Vigner, Michel Ephritikhine

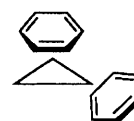
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R = Me, Et, vinyl, benzy; X = CH₂CH₂OH, CH₂CH₂NH₂, CH₂CO₂H, CH₂CO₂Bu^t, CH₂PO(OH)₂, CH₂PO(OEt)₂, CH₂PO(OEt)OK

Zoltan Kovacs, A. Dean Sherry

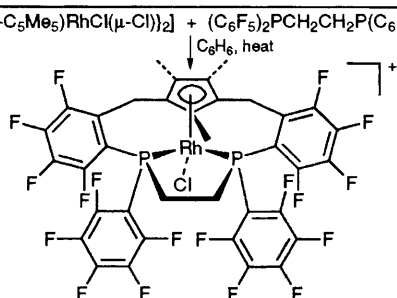
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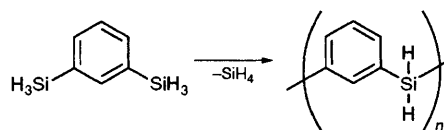
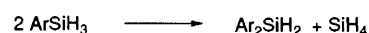
189 **Synthesis and Molecular Structure of the Novel Triosmium Bis(benzene) Cluster [Os₃(CO)₆(η⁶-C₆H₆)₂(μ₃:η²:η²:η²-C₆H₆)]**

The novel bis(benzene) cluster [Os₃(CO)₆(μ₃:η²:η²:η²-C₆H₆)(η⁶-C₆H₆)₂] is prepared in a stepwise manner from [Os₃(CO)₉(μ₃:η²:η²:η²-C₆H₆)].

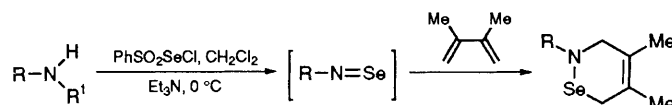
Scott L. Ingham, Brian F. G. Johnson, Jacqueline G. M. Nairn

191 **Cleavage of Both Alkyl C–H Bonds and Aryl C–F Bonds and Concomitant C–C Bond Formation in a Pentamethylcyclopentadienylrhodium Phosphine Complex: X-Ray Structure of [η⁵-C₅Me₅-[CH₂C₆F₄P(C₆F₅)CH₂]₂-1,3]RhCl]⁺BF₄[–]**

Malcolm J. Atherton, John Fawcett, John H. Holloway, Eric G. Hope, Atilla Karaċar, David R. Russell, Graham C. Saunders

193 **Ruthenium Complex-catalysed Selective Redistribution Reaction of Aryltrihydrosilanes and Desilanative Polymerization of Bis(trihydrosilyl)-benzenes**

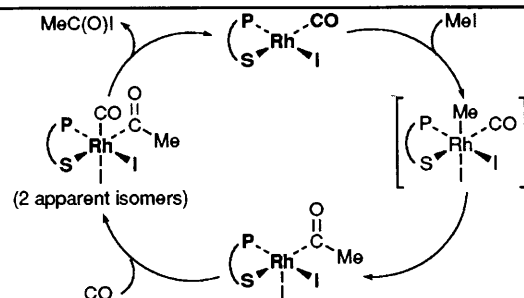
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Martin R. Bryce, Antony Chesney

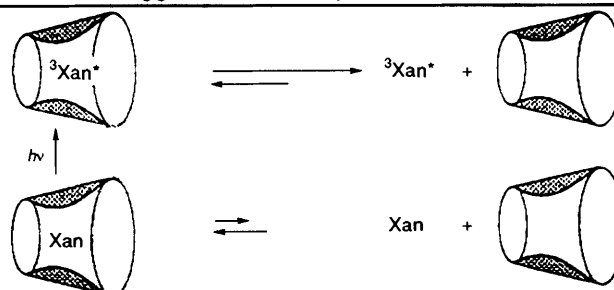
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Michael J. Baker, Martin F. Giles, A. Guy Orpen, Michael J. Taylor, Robert J. Watt



- 199 Effect of Excitation on the Host–Guest Equilibrium Constants of Cyclodextrin Complexes

Y. Liao, J. Frank, J. F. Holzwarth, C. Bohne

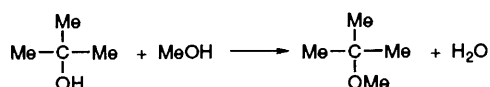


- 201 Effects of Particle Size Morphology on Ultrasonic-induced Cavitation Mechanisms in Heterogeneous Systems

Ultrasonic irradiation of copper and lead separately in hydrochloric acid has shown that mechanistic effects largely depend on the structural nature of the solid reactants.

Chin-Chye Teoh Alex, Ngoh Khang Goh, Lian Sai Chia

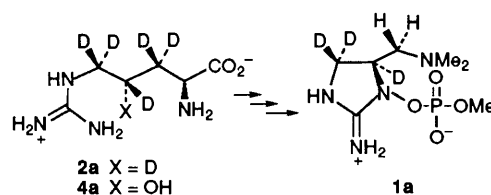
- 203 Single-pot Synthesis of Methyl *tert*-Butyl Ether from *tert*-Butyl Alcohol and Methanol: Dodecatungstophosphoric Acid supported on Clay as an Efficient Catalyst



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- 205 Biosynthesis of Anatoxin-a(s). (2*S*,4*S*)-4-Hydroxyarginine as an Intermediate

Thomas Hemscheidt, David L. Burgoyne, Richard E. Moore

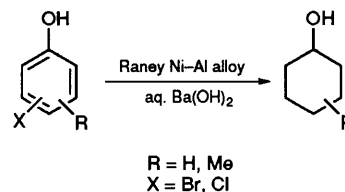


- 207 Novel Large-pore Vanadium Alumino- and Boro-silicates With BEA Structure

The syntheses of new large-pore vanadium alumino- and boro-silicate molecular sieves having BEA structure are reported.

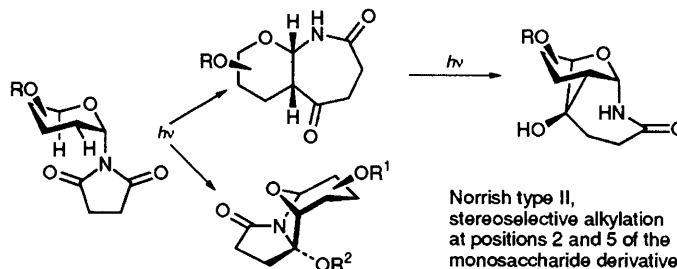
Tapas Sen, Maya Chatterjee, S. Sivasanker

- 209 **Hydrogenation of Halophenols to Cyclohexanols Using Raney Nickel–Aluminium Alloy in Saturated Ba(OH)₂ Solution under Mild Conditions**



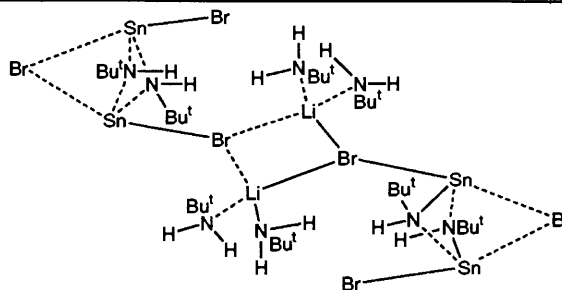
Takehito Tsukinoki, Takaaki Kakinami, Yukiko Iida, Makiko Ueno, Yoshiko Ueno, Takuya Mashimo, Hirohisa Tsuzuki, Masashi Tashiro

- 211 **Syntheses of Sugar-derived Heterotricyclic Lactams**



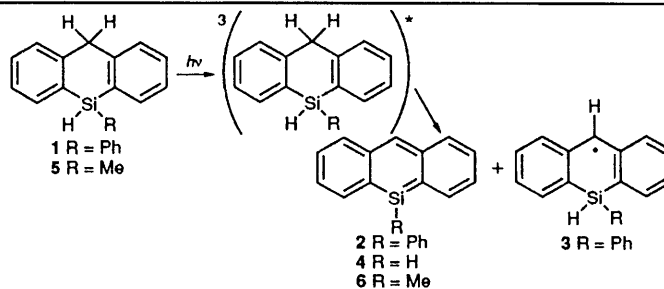
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- 213 **A Li₂Br₂ Ring Trapped by *tert*-Butylaminotin(II)-bromide and *tert*-Butylamine as found by X-Ray Crystallography**



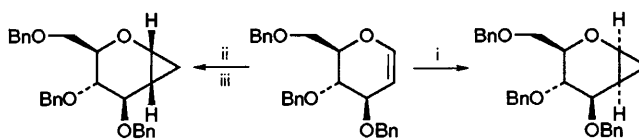
Michael Veith, Peter Hobein, Volker Huch

- 215 **Photochemical Formation of 9-Silaanthracenes in Rigid Glass**



Hiroshi Hiratsuka, Miéko Tanaka, Tetsuo Okutsu, Makoto Oba, Kozaburo Nishiyama

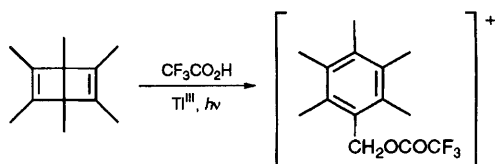
- 217 **Synthesis of 1,2-Cyclopropanated Sugars from Glycols**



R. Murali, C. V. Ramana, M. Nagarajan

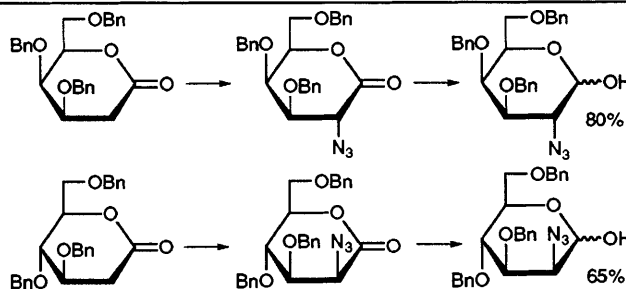
i, CH₂I₂, Zn, CuCl, AcCl, diethyl ether, reflux;
ii, CHCl₃, 50% aq. NaOH, cat. BnEt₃NCl, room temp.; iii, LAH, THF, room temp.

- 219 **The Radical Cation from Hexamethyl(Dewar Benzene): Derived from a Substitution Product of Hexamethylbenzene?**



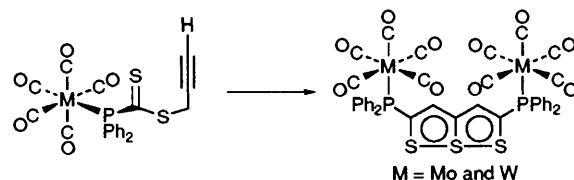
Lennart Ebersson, Ola Persson, Jan O. Svensson

- 221 **Electrophilic Azidation of 2-Deoxy-aldono-1,5-lactones: an Alternative Route to 2-Azido-2-deoxy-aldopyranoses**



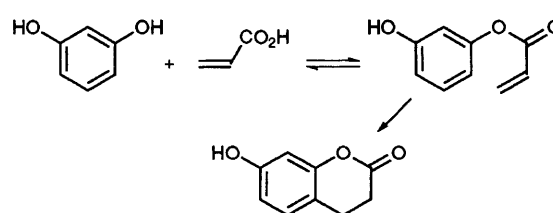
François-Yves Dupradeau, Sen-itiroh Hakomori, Tatsushi Toyokuni

- 223 **Synthesis and Crystal Structure of the First 6a-Thiathiophthen Metal Complex [Mo(CO)₅PPh₂]₂(μ-C₅H₂S₃)**



Kuang-Hway Yih, Ying-Chih Lin, Gene-Hsiang Lee, Yu Wang

- 225 **Synthesis of 7-Hydroxycoumarins catalysed by Solid Acid Catalysts**



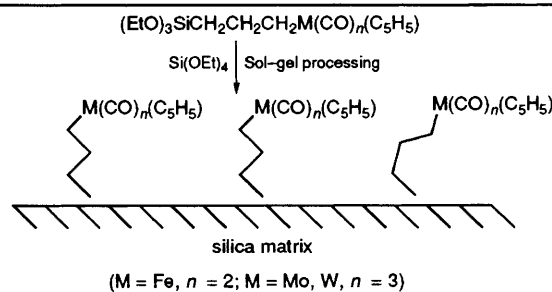
Antonius J. Hoefnagel, Eric A. Gunnewegh, Roger S. Downing, Herman van Bekkum

- 227 **Zeolite ZSM-5 Membranes Grown on Porous α-Al₂O₃**

Macroporous α-Al₂O₃ disks were held horizontally in a clear synthesis solution (TPAOH·4NaOH·0.005Al₂O₃·6SiO₂·571H₂O) at 175 °C under autogenous pressure. After 16 h polycrystalline zeolite ZSM-5 films had grown on the α-Al₂O₃ substrates. After calcination the zeolite–alumina composites were impermeable to triisopropylbenzene but selectively permeable to smaller molecules having, for example, *n*-butane : isobutane permeance ratios of 18 at 30 °C and 31 at 185 °C.

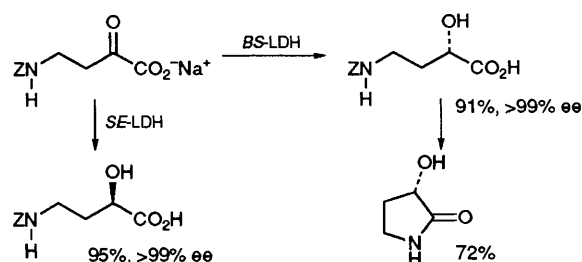
Yushan Yan, Michael Tsapatsis, George R. Gavalas, Mark E. Davis

- 229 **Composition-tunable Metal–Alkyl Xerogels as Precursors for Homogeneously Dispersed Metals in Amorphous Silica Matrix**



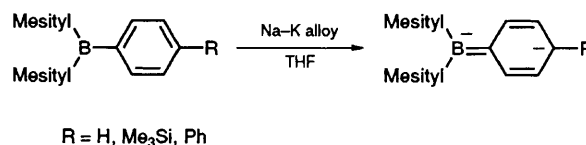
Pierre Braunstein, Daniele Cauzzi, Giovanni Predieri, Antonio Tiripicchio

- 231 **Enantioselective Syntheses of (*S*)- and (*R*)-3-Hydroxypyrrolidin-2-ones via Lactate Dehydrogenase Catalysed Reductions of 4-Benzyloxycarbonylamino-2-oxobutanoic Acid**



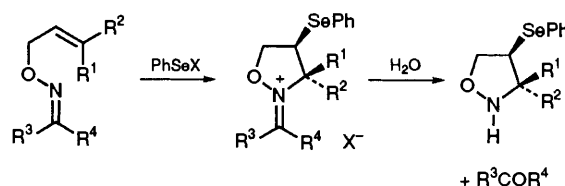
Jonathan M. Bentley, Harry J. Wadsworth, Christine L. Willis

233 **Generation and Characterisation of Dimesitylphenylborane Dianions**



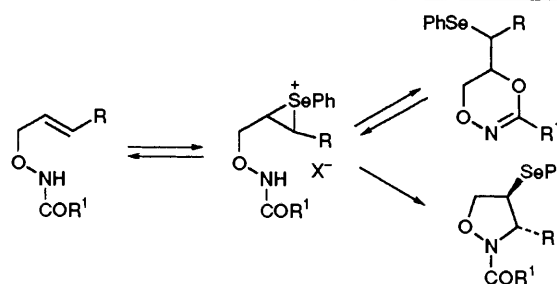
Keiji Okada, Teruhisa Kawata, Masaji Oda

235 **Organoselenium-induced Stereoselective Cyclisation of *O*-Allyl Oximes: A New Synthetic Route to Isoxazolidines**



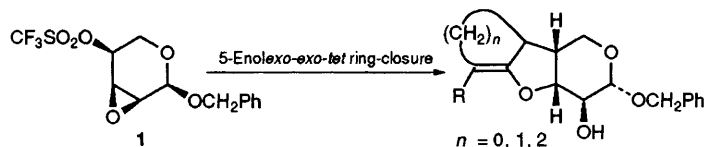
Marcello Tiecco, Lorenzo Testaferri, Marco Tingoli, Luana Bagnoli

237 **1,4,2-Dioxazines or *N*-Acyl Isoxazolidines from Organoselenium-induced Cyclisation of *O*-Allyl Hydroxamic Acids**



Marcello Tiecco, Lorenzo Testaferri, Marco Tingoli, Francesca Marini

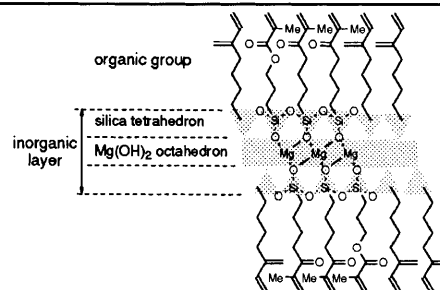
239 **Efficient Access to Polyfunctionalized and Polycyclic Furanoids: Control of the Off-template Centre *via* Acid Catalysis**



A regio- and stereo-selective synthesis of polyfunctionalized furanoids using the dianions of β -dicarbonyl compounds and *cis*-oriented epoxy triflate pyranoses is described.

Taleb H. Al-Tel, Wolfgang Voelter

241 **An Organic/Inorganic Hybrid Layered Polymer: Methacrylate–Magnesium(Nickel) Phyllosilicate**

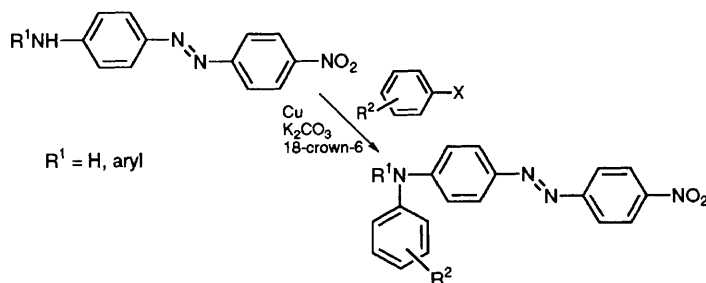


Yoshiaki Fukushima, Masaaki Tani

243 ***n*-Butane Oxidation to Maleic Anhydride and Furan with no Carbon Oxide Formation using a Catalyst derived from $VO(H_2PO_4)_2$**

n-Butane is oxidised to maleic anhydride and furan only, *i.e.* no carbon oxides are formed, using catalysts derived from $VO(H_2PO_4)_2$.

Maria T. Sananes, Graham J. Hutchings, Jean-Claude Volta

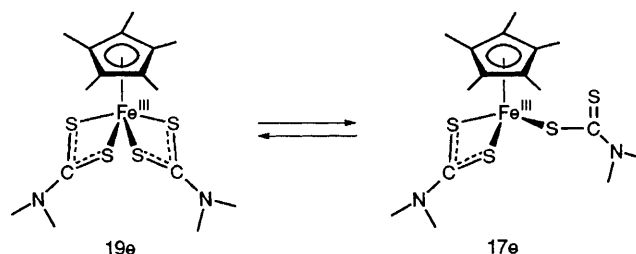
245 **Functionalized Azo Dyes by Direct Ullmann Coupling**

R. D. Miller, V. Y. Lee, R. J. Twieg

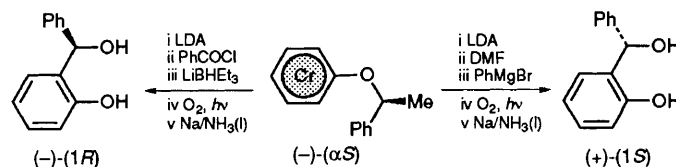
247 **Amorphous Iron–Boron Powders prepared by Chemical Reduction of Mixed-metal Cation Solutions: Dependence of Composition upon Reaction Temperature**

By altering the reaction temperature from -7 to 30 °C, the boron contents in Fe–B amorphous powders were regulated over a wide range, from 23 to 40 atom%, a consequence of the difference in the apparent activation energies for the deposition of iron and boron.

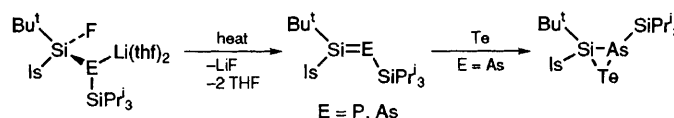
Z. Hu, Y. Fan, F. Chen, Y. Chen

249 **Spectroscopic and Electrochemical Observation of Both 17- and 19-Electron States of an Inorganometallic Transition Metal Complex: $[\text{Fe}^{\text{III}}(\eta^5\text{-C}_5\text{Me}_5)(\text{S}_2\text{CNMe}_2)_2]$** 

Marie-Hélène Delville-Desbois, François Varret, Didier Astruc

251 **Asymmetric Synthesis of the Enantiomers of the Diarylcarbinol (1R)- and (1S)-1-(1-Hydroxyphenylmethyl)-2-hydroxybenzene**

Stephen G. Davies, W. Ewan Hume

253 **First Structural Characterization of Silicon–Arsenic and Silicon–Phosphorus Multiple Bonds in Silylated Silylidene-arsanes and -phosphanes; X-Ray Structure of a Tellura-arsasilirane Derivative**

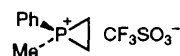
Matthias Driess, Stefan Rell, Hans Pritzkow

255 **Large Activation of Serine Proteases by Pretreatment with Crown Ethers**

Pretreatment of serine proteases by lyophilisation in the presence of crown ethers leads to large enhancements of enzyme activity in organic solvents. For instance in the enzyme-catalysed transesterification of *N*-acetyl(L)phenylalanine ethyl ester lyophilisation of α -chymotrypsin in the presence of 250 equiv. of 18-crown-6 increases the activity of the enzyme 640 times, resulting in a k_{cat}/K_M value of $770 \text{ dm}^3 \text{ mol}^{-1} \text{ s}^{-1}$. This activity is the highest ever observed for α -chymotrypsin suspended in organic solvent and is only 50 times lower than that of α -chymotrypsin in water.

Jaap Broos, Inna K. Sakodinskaya, Johan F. J. Engbersen, Willem Verboom, David N. Reinhoudt

- 257 **1-Methyl-1-phenylphosphiranium Triflate: Synthesis, Structure and Reactivity**



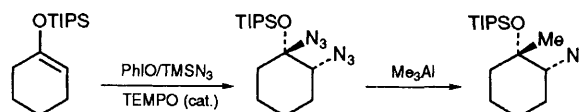
David C. R. Hockless, Mark A. McDonald,
Michael Pabel, S. Bruce Wild

- 259 **Synthesis, Photophysics and Photochemistry of Novel Luminescent Rhenium(I) Photoswitchable Materials**

A series of new mono- and bi-nuclear rhenium(I) complexes, $[\text{Re}(\text{CO})_3(\text{N}-\text{N})\text{L}]\text{ClO}_4$ and $[\{\text{Re}(\text{CO})_3(\text{N}-\text{N})\}_2\text{L}'](\text{ClO}_4)_2$ [where $\text{N}-\text{N}$ = diimine and L = 4-phenylazopyridine (phazo), 4-styrylpyridine (stypy), 4-pyridyl-2-ethylbenzene (NB); L' = 4,4'-azopyridine (azo), 1,4-bis(4-pyridyl-2-ethyl)benzene (NBN)] are prepared and shown to exhibit rich photophysical and photochemical behaviour; the X-ray crystal structure of a binuclear $[\{\text{Re}(\text{CO})_3(\text{bpy})\}_2(\text{NBN})][\text{PF}_6]_2$ complex is determined. Photoswitches based on the phazo- and azo-bridged species are reported.

Vivian Wing-Wah Yam, Victor Chor-Yue Lau,
Kung-Kai Cheung

- 263 **New Trialkylsilyl Enol Ether Chemistry: Direct 1,2-Bis-azidonation of Triisopropylsilyl Enol Ethers: an Azido-radical Addition Process Promoted by TEMPO**



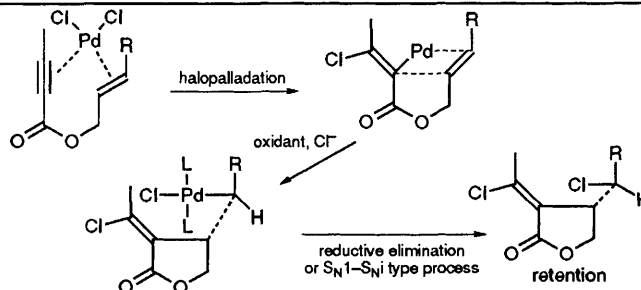
Philip Magnus, Michael B. Roe, Christopher
Hulme

- 267 **Unusual Reactivity of a Luminescent Bis- μ -Sulfido Platinum(II) Dimer with Methylene Chloride. X-Ray Structural Characterization of $[\text{Pt}_2(\mu\text{-S})_2(\text{dppy})_4]$ and $[\text{Pt}(\text{dppy})_2(\text{S}_2\text{CH}_2)]$ (dppy = 2-diphenylphosphinopyridine)**

Reaction of $[\text{Pt}(\text{dppy})_2\text{Cl}_2]$ with NaSH in the presence of triethylamine in MeCN produces luminescent dimeric $[\text{Pt}_2(\mu\text{-S})_2(\text{dppy})_4]$ which has been characterized by X-ray crystallography; its unusual reactivity with CH_2Cl_2 to give a novel monomeric $[\text{Pt}(\text{dppy})_2(\text{S}_2\text{CH}_2)]$, identified by both NMR spectroscopy and X-ray crystallography, is described.

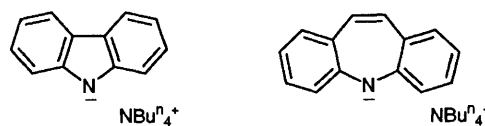
Vivian Wing-Wah Yam, Phyllis Kok-Yan Yeung,
Kung-Kai Cheung

- 271 **Observations on the Unusual Stereochemistry of the Oxidative Cleavage of Palladium–Carbon Bonds**



Guoxin Zhu, Shengming Ma, Xiyan Lu, Qichen
Huang

- 275 **Tetrabutylammonium Salts of Carbazole and Dibenzazepine: Synthesis, Crystal Structures and Use in Anionic Polymerization**



Manfred T. Reetz, Stephan Hütte, Richard
Goddard, Ulrich Minet

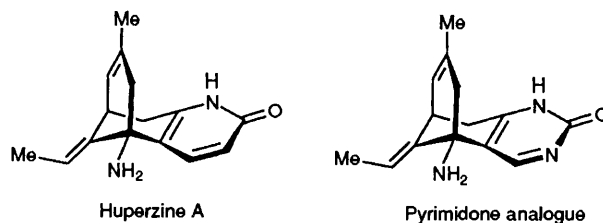
- 279 **A Crystallographic Map of Chiral Recognition in π Complexes of Aromatic Aldehydes and a Chiral Transition Metal Lewis Acid: Enantioface Binding Selectivities in Solution Correlate to Distances between Metal and Carbon Stereocentres in the Solid State**

Brian J. Boone, Darryl P. Klein, N. Quirós Méndez, Jeffery W. Seyler, A. M. Arif, J. A. Gladysz

The title claim is established with five π -aromatic aldehyde complexes $[(\eta^5\text{-C}_5\text{H}_5)\text{Re}(\text{NO})(\text{PPh}_3)(\eta^2\text{-O=CHAr})]^+ \text{X}^-$. Electronegative aryl substituents give shorter rhenium–carbon bond lengths and higher binding selectivities, providing the first easily conceptualized mechanism for an electronic effect upon chiral recognition.

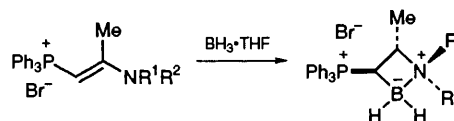
- 283 **Synthesis and Acetylcholinesterase Inhibitory Activity of Several Pyrimidone Analogues of Huperzine A**

Alan P. Kozikowski, Giuseppe Campiani, Ashima Saxena, Bhupendra P. Doctor



- 287 **Synthesis and X-Ray Crystal Structure of (1*S*,3*R*,4*S*,1'*S*)-4-Methyl-3-triphenylphosphonium-1-[1'-methyl(methylphenyl)]-2-hydrido-2-borazetidinium Bromide—the First Example of a Four-membered C–B–N–C Heterocycle**

Brian L. Booth, Nicholas J. Lawrence, Robin G. Pritchard, Humayan S. Rashid



Corrigenda

- 291 **Selective Adsorption in Gold–Thiol Monolayers of Calix-4-resorcinarenes**

Harry Adams, Frank Davis, Charles J. M. Stirling

- 291 **Allenylidene Indenyl Ruthenium(II) Complexes as Sources of Highly Functionalized Alkynyl Complexes: Synthesis of the First Bimetallic Derivatives containing a Vinylidene–Carbene Bridge**

Victorio Cadierno, M. Pilar Gamasa, José Gimeno, Javier Borge, Santiago García-Granda

- 291 **Mechanism of a Novel Spirocyclisation Reaction: Intramolecular Oxygen Transfer to Carbon Radicals by Nitro Groups**

Upendra P. Topiwala, Donald A. Whiting

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