

JOURNAL OF THE CHEMICAL SOCIETY

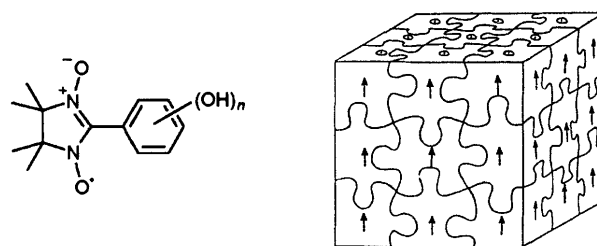
# Chemical Communications

Number 7  
1995

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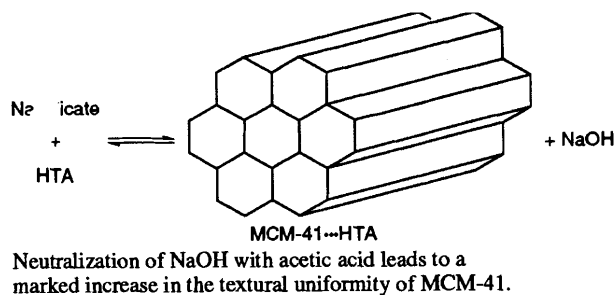
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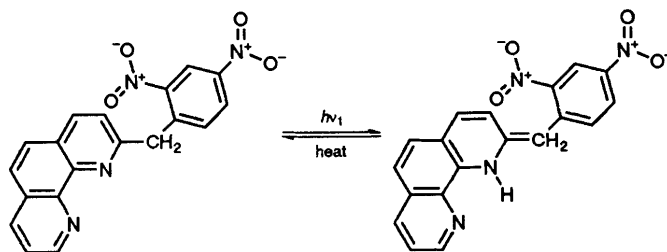
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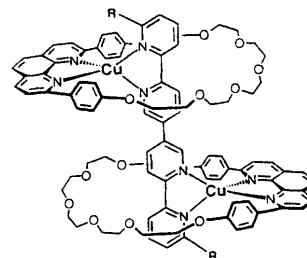
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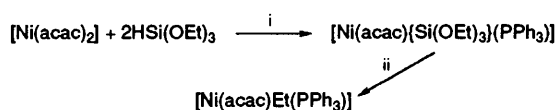


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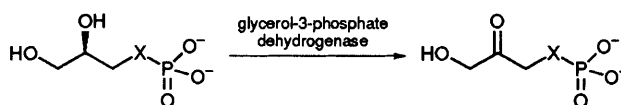
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Bogdan Marciniec, Hieronim Maciejewski, Jacek Guliński

i, + PPh<sub>3</sub>, - MeCH[OSi(OEt)<sub>3</sub>]CH<sub>2</sub>C(O)Me; ii, + HSi(OEt)<sub>3</sub>, - (EtO)<sub>3</sub>SiOSi(OEt)<sub>2</sub>

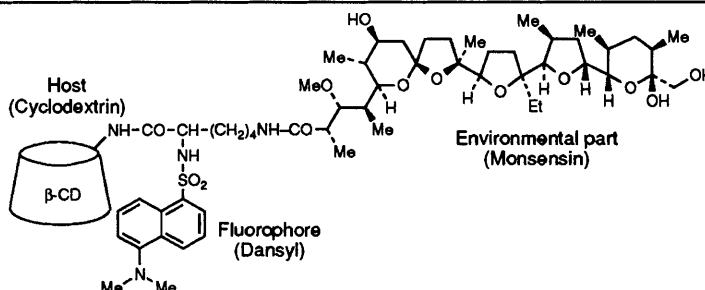
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	$K_m / \text{mmol dm}^{-3}$	$V_{rel}$
1 X = O	0.2	1.0
2 X = CH <sub>2</sub>	0.18	0.8
3 X = CHF	0.17	0.9
4 X = CF <sub>2</sub>	0.73	0.8

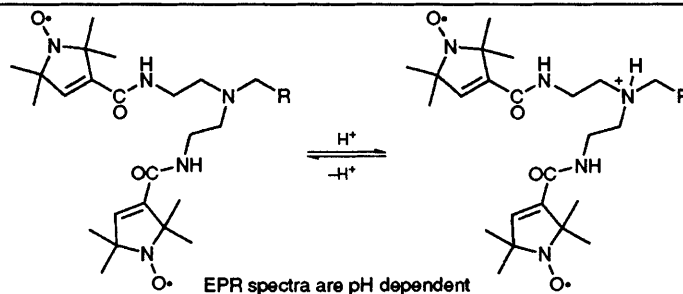
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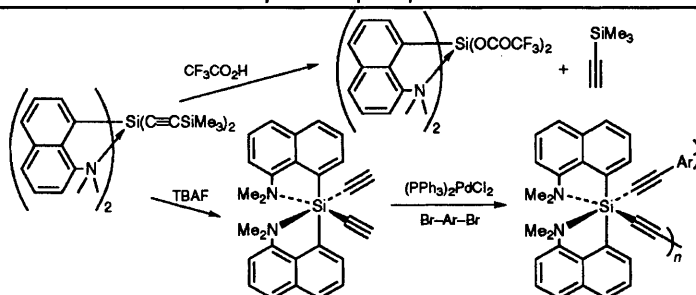
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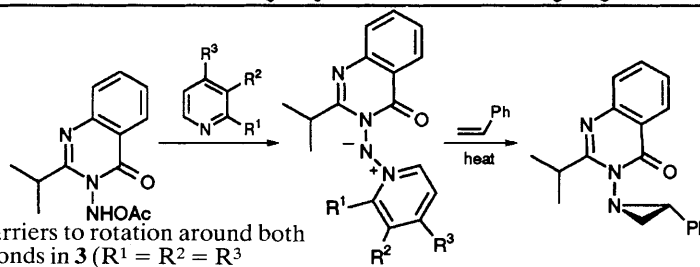
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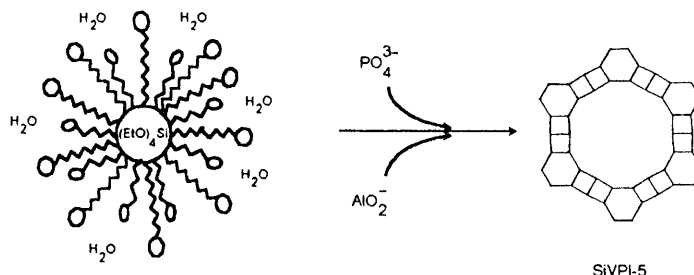
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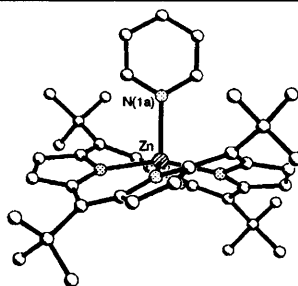
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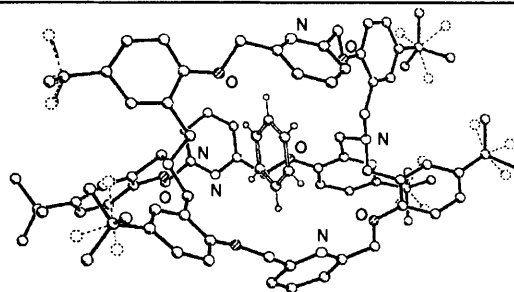
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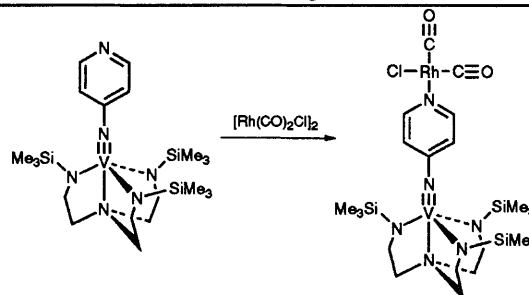
733 **Crystal Structure of a Remarkably Ruffled Nonplanar Porphyrin (Pyridine)[5,10,15,20-Tetra(*tert*-butyl)porphyrinato]zinc(II)**

The first crystal structure of a nonplanar porphyrin bearing only *meso*-substituents shows a significantly ruffled macrocycle distortion with deviations of up to 1 Å for the C<sub>m</sub>-atoms. The large out-of-plane displacements of the bulky *meso-tert*-butyl groups explain the high chemical reactivity observed for tetrakis(*tert*-butyl)porphyrin and show that bulky *meso*-substituents alone are sufficient to induce major macrocycle distortion.

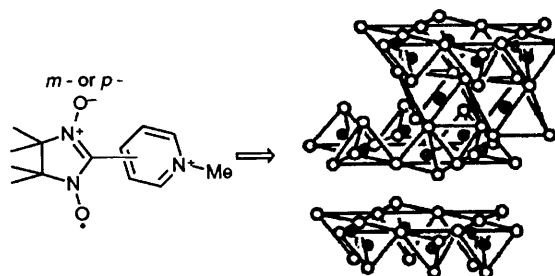
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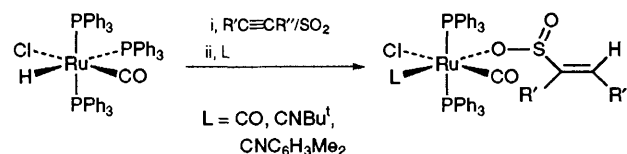
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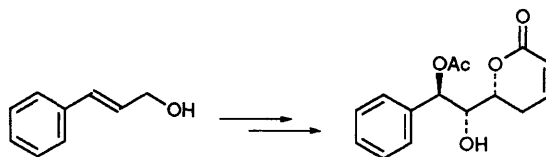
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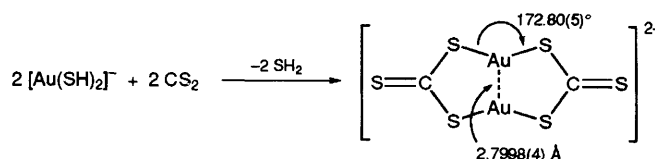
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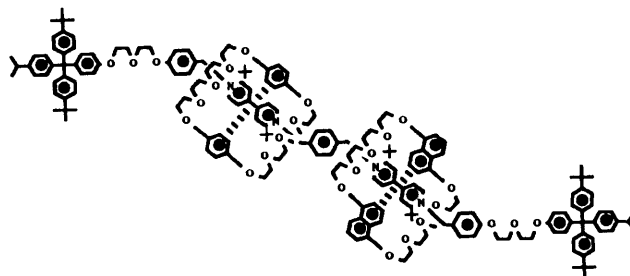
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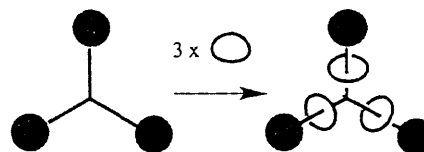
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- 747 **The Controlled Self-assembly of a [3]Rotaxane Incorporating Three Constitutionally Different Components**



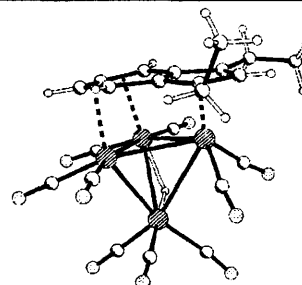
David B. Amabilino, Peter R. Ashton, Martin Bělohradský, Francisco M. Raymo, J. Fraser Stoddart

- 751 **The Self-assembly of Branched  $[n]$ Rotaxanes—the First Step Towards Dendritic Rotaxanes**



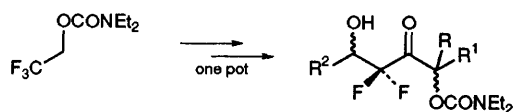
David B. Amabilino, Peter R. Ashton, Martin Bělohradský, Francisco M. Raymo, J. Fraser Stoddart

- 755 **Polynuclear Clusters of Fused-ring Hydrocarbons. The Synthesis and X-Ray Structure of  $[\text{Os}_4\text{H}(\text{CO})_9(\mu_3-\eta^2-\eta^2-\eta^5-\text{C}_{13}\text{H}_{15})]$  ( $\text{C}_{13}\text{H}_{15}$  = 1,3-diethylindenyl)**

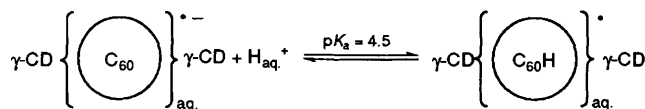


Jack Lewis, Paul R. Raithby, Gregory N. Ward

## 757 The Aldol Reaction with Difluoroenolates

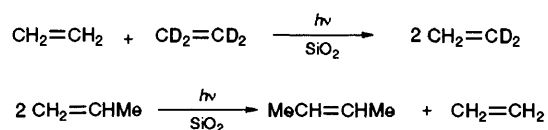


Judith A. Howarth, W. Martin Owton, Jonathan M. Percy

759  $pK_a$  of Singly Reduced  $\text{C}_{60}$  Encapsulated in  $\gamma$ -Cyclodextrin

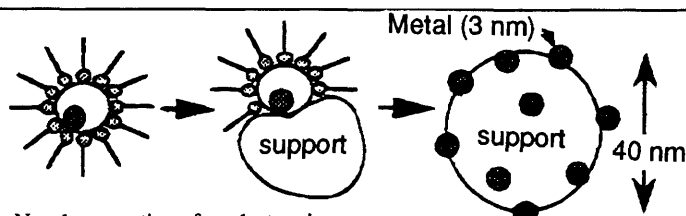
Vanessa Ohlendorf, Amadeus Willnow, Hartmut Hungerbühler, Dirk M. Guldi, Klaus-Dieter Asmus

## 761 Alkene Metathesis on Photoirradiated Silica Surface



Hisao Yoshida, Tsunehiro Tanaka, Shigehiro Matsuo, Takuzo Funabiki, Satohiro Yoshida

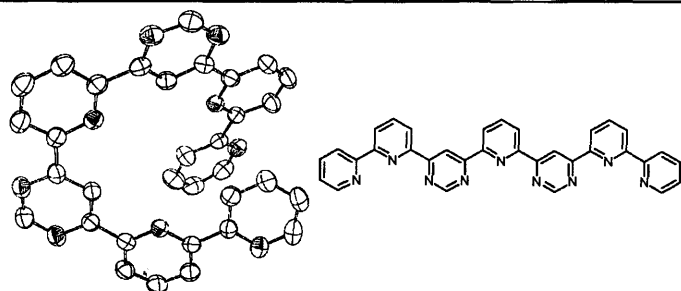
## 763 Novel Preparation of Metal-supported Catalysts by Colloidal Microparticles in a Water-in-oil Microemulsion; Catalytic Hydrogenation of Carbon Dioxide



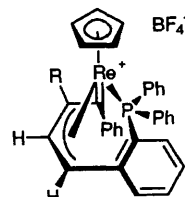
Novel preparation of catalysts using microemulsion and alkoxide.

The catalyst exhibited high activity for  $\text{CO}_2$  hydrogenation.

## 765 Molecular Helicity: a General Approach for Helicity Induction in a Polyheterocyclic Molecular Strand

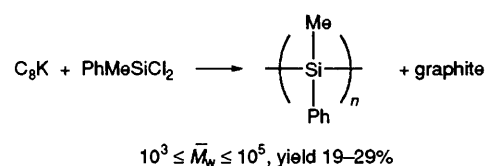


Garry S. Hanan, Jean-Marie Lehn, Nathalie Kyritsakas, Jean Fischer

767 Formation of *cisoid*- $\eta^4(5e)$ -Butadienylrhenium Complexes by Coupling of Alkene and Alkyne Ligands

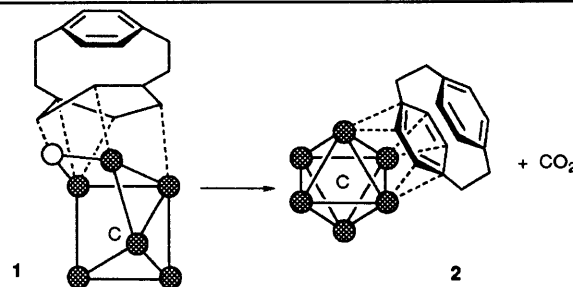
Stephen J. Dossett, Michael Green, Mary F. Mahon, Jacqueline M. McInnes

- 769 **Graphite–potassium, a New Reagent for the Synthesis of Polysilanes**



Bénédicte Lacave-Goffin, László Hevesi, Jacques Devaux

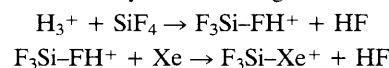
- 771 **The Synthesis and Characterisation of  $[\text{Ru}_6\text{C}(\text{CO})_{15}(\mu_3\text{-}\eta^1:\eta^2:\eta^2\text{-C}_{16}\text{H}_{16}\text{-}\mu_2\text{-O})]$ : an Intermediate in the Formation of the Carbido-cluster  $[\text{Ru}_6\text{C}(\text{CO})_{14}(\mu_3\text{-}\eta^2:\eta^2:\eta^2\text{-C}_{16}\text{H}_{16})]$**



Paul J. Dyson, Brian F. G. Johnson, Caroline M. Martin, Dario Braga, Fabrizia Grepioni

- 773 **The Gaseous Trifluorosilylxenon Cation,  $\text{F}_3\text{SiXe}^+$ : a Stable Species with a Silicon–Xenon Bond**

Gaseous trifluorosilylxenon cations can be obtained under mass spectrometric conditions by the following reaction sequence:



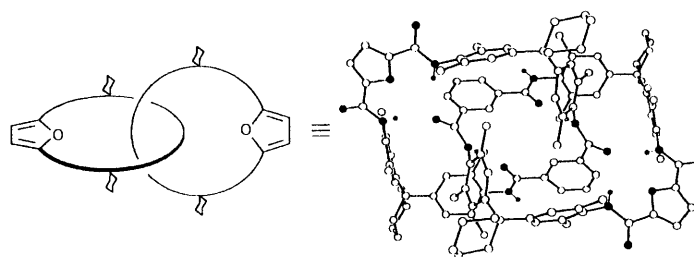
Romano Cipollini, Felice Grandinetti

- 775 **The EPR Spectrum and Structure of the Mixed Alkali Metal Trimer Cluster  $\text{Na}_2\text{Li}$  Prepared using a Rotating Cryostat**

A mixed cluster  $\text{NaLiNa}$  has been prepared by vaporising an alloy of sodium and lithium into an adamantane matrix in a rotating cryostat.

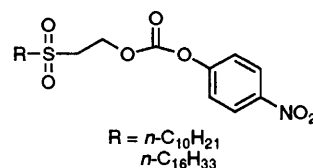
B. Mile, C. C. Rowlands, P. D. Sillman, A. R. Yacob

- 777 **Amide-based Furano-catenanes: Regioselective Template Synthesis and Crystal Structure**



Stephan Ottens-Hildebrandt, Martin Nieger, Kari Rissanen, Juha Rouvinen, Stephan Meier, Gabriele Harder, Fritz Vögtle

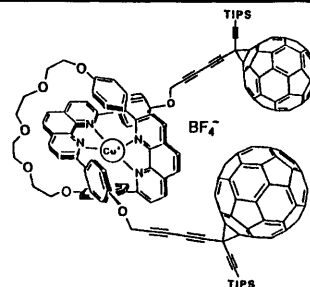
- 779 **On the Use of Hydrophobic Probes in the Chromatographic Purification of Solid-phase-synthesized Peptides**



Carlos García-Echeverría

781 **A Copper(I)-complexed Rotaxane with Two Fullerene Stoppers**

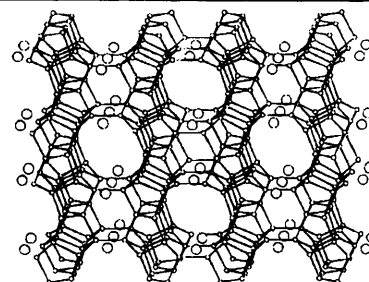
François Diederich, Christiane Dietrich-Buchecker, Jean-François Nierengarten, Jean-Pierre Sauvage



783 **Use of Anomalous X-Ray Diffraction to Determine the Location of Sorbed Krypton in Ferrierite**

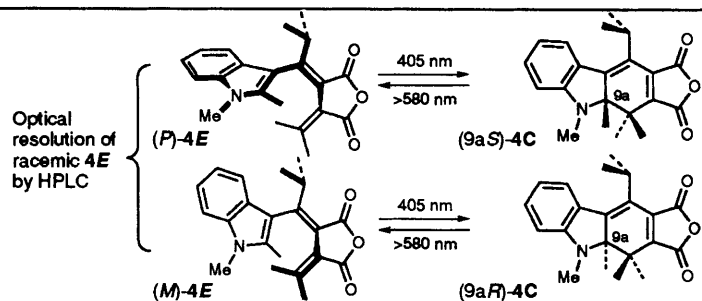
R. H. Jones, P. Lightfoot, R. M. Ormerod

The locations of the sorption sites of krypton in the zeolite, ferrierite, have been determined by anomalous X-ray diffraction using synchrotron radiation.



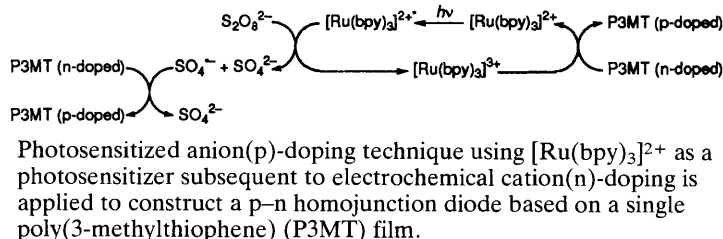
785 **Optical Resolution of a Thermally Irreversible Photochromic Indolylfulgide**

Yasushi Yokoyama, Yuki Shimizu, Soichi Uchida, Yayoi Yokoyama



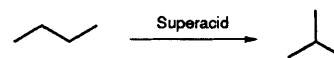
787 **A Poly(3-methylthiophene) Diode based on a p-n Homojunction prepared by Combination of Electrochemical Cation Doping and Photochemical Anion Doping**

Yoshihito Kunugi, Yutaka Harima, Kazuo Yamashita



789 **Synthesis of a Highly Active Superacid of Platinum-supported Zirconia for Reaction of Butane**

Makoto Hino, Kazushi Arata



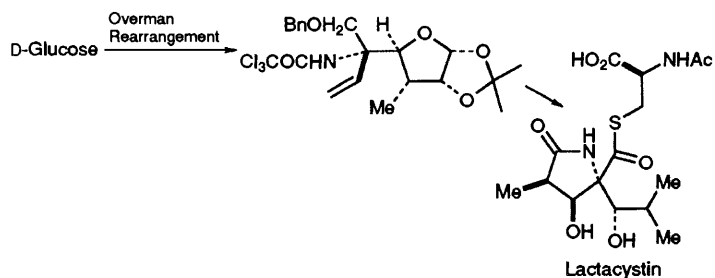
Exposure of zirconia gel to 2 mol dm<sup>-3</sup> H<sub>2</sub>SO<sub>4</sub> → impregnation with H<sub>2</sub>PtCl<sub>6</sub> (7.5 mass% Pt) → 600 °C in air.

791 **New Homogeneous Rhenium-based Metathesis Catalysts as Models of the Rhenium on Alumina Heterogeneous Catalyst**

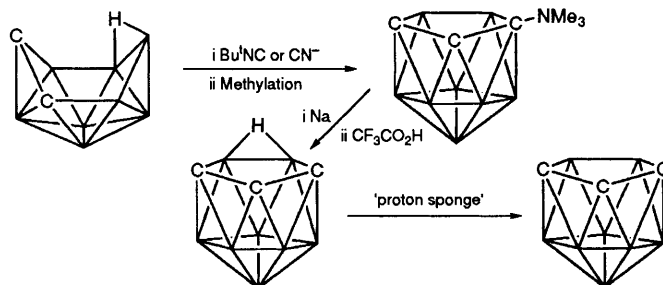
Dominique Commereuc



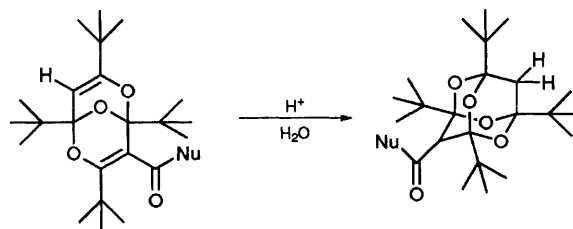
(ArO = 2,6-di-*tert*-butyl-4-methylphenoxy)

793 **Total Synthesis of (+)-Lactacystin from D-Glucose**

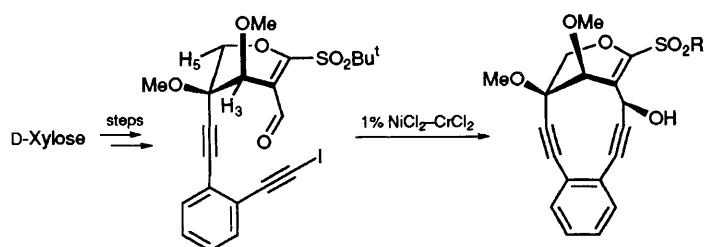
Noritaka Chida, Jun Takeoka, Noriko Tsutsumi, Seiichiro Ogawa

795 **Tricarbollides—Compounds of the Eleven-vertex Series of Tricarbaboranes**

Bohumil Štíbr, Josef Holub, Francesc Teixidor, Clara Viñas

797 **A Convenient *De Novo* Synthesis of Functionalised 2,4,6,8-Tetraoxadamantanes**

Werner Heilmayer, Turkaram S. Dalvi, C. Oliver Kappe, Curt Wentrup, Karl Gruber, Heinz Sterk, Gert Kollenz

799 **Synthetic Studies Related to the Esperamicin/Calicheamicin Aglycone: Efficient Construction of a Homochiral Oxabicyclo [7:3:1] Analogue from D-Xylose**

Isabelle Dancy, Troels Skrydstrup, Christophe Crévisy, Jean-Marie Beau

**Corrigenda**801 **5,15,25-tris-nor-Hexapyrrin: the First Structurally Characterized Linear Hexapyrrin**

Jonathan L. Sessler, Steven J. Weghorn, Vincent Lynch, Kjell Fransson

801 **Synthesis, Photophysics and Electrochemistry of a Novel Luminescent Organometallic Ruthenium(II)/Platinum(II) Binuclear Complex and its Ruthenium(II)/Dichloro-Platinum(II) and Palladium(II) Counterparts. X-Ray Crystal Structure of  $[\text{Ru}(\text{bpy})_2(\mu\text{-}2,3\text{-dpp})\text{PtCl}_2]^{2+}$  [2,3-dpp = 2,3-bis(2-pyridyl)pyrazine]**

Vivian Wing-Wah Yam, Vicky Wing-Man Lee, Kung-Kai Cheung



- 801 **The Dependence of the Molecular First Hyperpolarizabilities of Merocyanines on Ground-state Polarization and Length**  
Rafael Ortiz, Seth R. Marder, Lap-Tak Cheng, Bruce G. Tiemann, Silvia Cavagnero, Joseph W. Ziller
- 801 **Photolytic Cleavage of DNA by  $[\text{Au}_3(\text{dmmp})_2]^{3+}$**   
Vivian Wing-Wah Yam, Sam Wing-Kin Choi, Kenneth Kam-Wing Lo, Wu-Fat Dung, Richard Yuen-Chong Kong
- 801 **A Novel Carboxylic Acid Azide Decomposition to yield 1,1,7-Trimethylindazol-3-ylidene Oxide**  
Norman M. Waldron, Majid Montevalli, Shamim Azam, Peter C. Dasopoulos
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