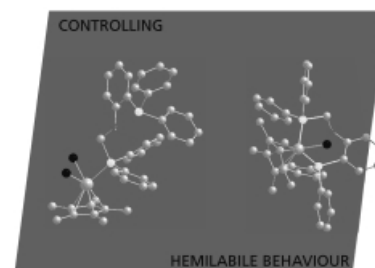


COVER PICTURE

The cover picture shows the ability of a new unsymmetrical ligand to act as either monodentate or bidentate; controlling this behaviour is important in catalytic processes. Details are discussed in the article by J. D. Woollins et al. on p. 1635 ff.



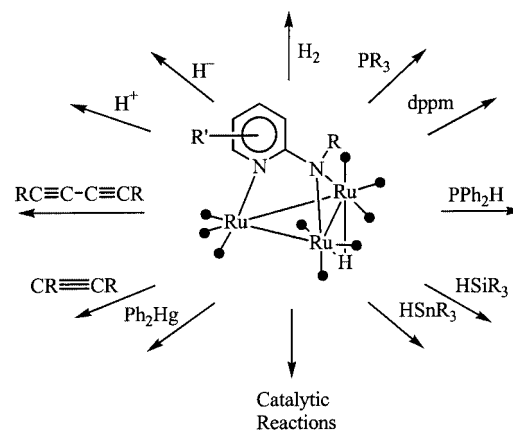
MICROREVIEWS

Contents

1559 J. A. Cabeza

The Important Role of Some Ancillary Ligands
 in the Chemistry of Carbonylmetal Cluster
 Complexes – Selected Reactivity of Tri-
 ruthenium Clusters Containing Deprotonated
 2-Aminopyridines

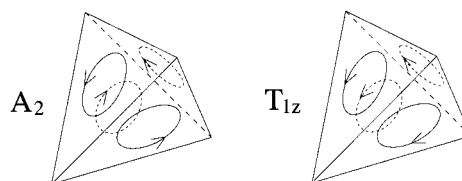
Keywords: Ruthenium / Cluster compounds / N
 ligands / Aminopyridines / Hemilabile
 ligands



1571 A. Ceulemans,* E. Lijnen

The Polyhedral State of Molecular Matter

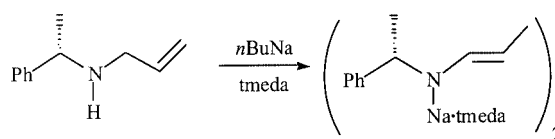
Keywords: Group theory / Topological chemistry / Polyhedra / Fullerenes / Cubanes / Boranes



SHORT COMMUNICATIONS

1583 P. C. Andrews,* S. M. Calleja, M. Maguire, P. J. Nichols

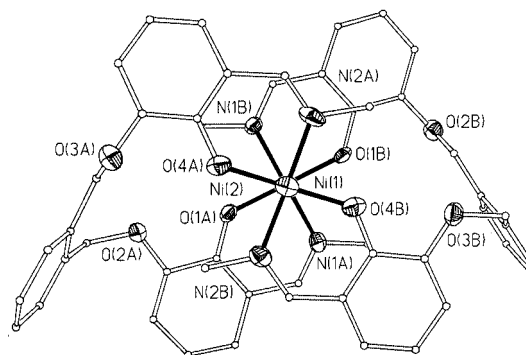
A 1,3-Sigmatropic Rearrangement Revealed in the Solid and Solution State Structures of a Chiral Sodium 1-Azaallyl Complex Derived from (*S*)-*N*-(α -Methylbenzyl)allylamine



Keywords: Sodium / N ligands / Chirality / Amines / Sigmatropic rearrangement / Structure elucidation

1588 M. Isola,* V. Luizzo, F. Marchetti, A. Raffaelli

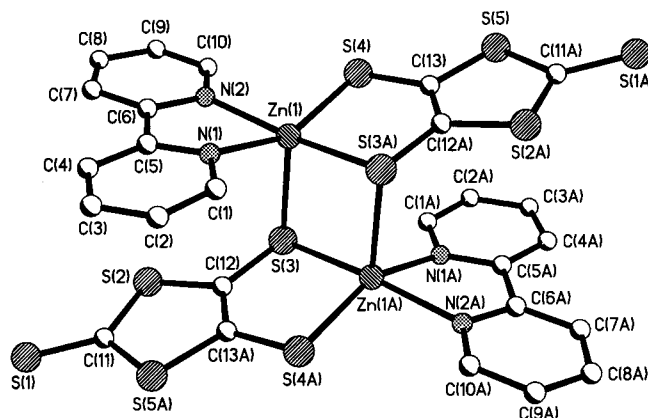
A Self-Assembled Dinuclear Double-Stranded Helicate Based on a Square-Planar Coordination Geometry



Keywords: Nickel / Schiff-base ligands / Self-assembly / N,O ligands / Supramolecular chemistry

1591 C.-M. Liu, D.-Q. Zhang,* Y.-L. Song, C.-L. Zhan, Y.-L. Li, D.-B. Zhu*

Synthesis, Crystal Structure and Third-Order Nonlinear Optical Behavior of a Novel Dimeric Mixed-Ligand Zinc(II) Complex of 1,3-Dithiole-2-thione-4,5-dithiolate

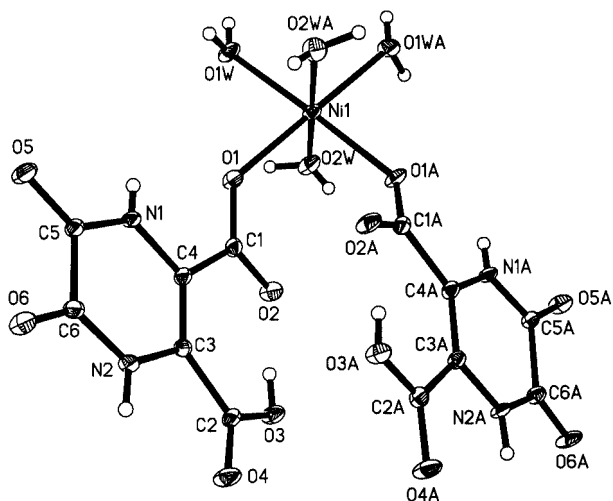


Keywords: Zinc / N ligands / S ligands / Crystal structure / Nonlinear optics

1595 C.-M. Liu, D.-Q. Zhang,* A.-J. Qin, C. Ye,
H.-M. Hu, D.-B. Zhu*

A Novel Nickel(II) Complex Adopting a *cis*-Configuration: Solvothermal Synthesis and Crystal Structure of $[\text{NiL}_2(\text{H}_2\text{O})_4]$ ($\text{L} = 1,4$ -Dihydropyrazine-2,3-dione-5,6-dicarboxylate)

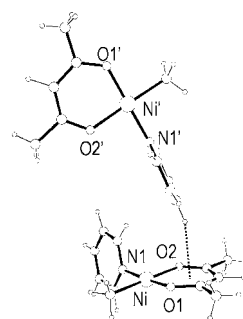
Keywords: Nickel / Solvothermal synthesis / Carboxylate ligands / Crystal structure



1599 G. A. Bogdanovic, A. Spasojević-de Biré,
S. D. Zarić*

Evidence Based on Crystal Structures and Calculations of a $\text{C}-\text{H}\cdots\pi$ Interaction Between an Organic Moiety and a Chelate Ring in Transition Metal Complexes

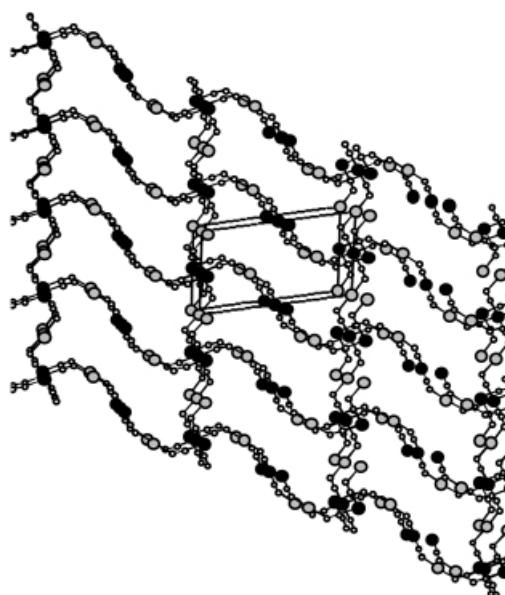
Keywords: $\text{C}-\text{H}\cdots\pi$ interactions / Chelates / Non-covalent interactions / Density functional calculations / Weak hydrogen bonds



1603 F. Bellouard, M. Clemente-León,
E. Coronado,* J. R. Galán-Mascarós,
C. J. Gómez-García, F. Romero,
K. R. Dunbar

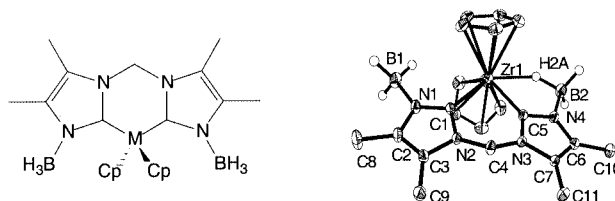
Unusual Magnetic Behavior in the Layered Ferromagnet $[\text{Ni}(\text{C}_6\text{H}_{14}\text{N}_2)_2]_3[\text{Fe}(\text{CN})_6]_2 \cdot 2\text{H}_2\text{O}$

Keywords: Molecular magnets / Ferromagnetism / Cyanides / Nickel / Magnetic properties



1607 A. Weiss, H. Pritzkow, W. Siebert*

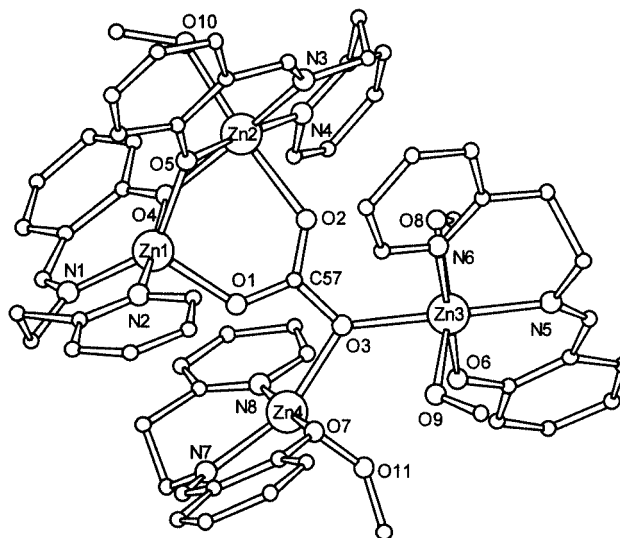
Synthesis, Structures and Reactivity of *N*-Borane-Protected 1,1'-Bisimidazoles with Different Bridging Functions



Keywords: Boranes / Carbenes / Carbene complexes / Nitrogen heterocycles / Macrocycles

1615 M. Döring,* M. Ciesielski, O. Walter, H. Görls

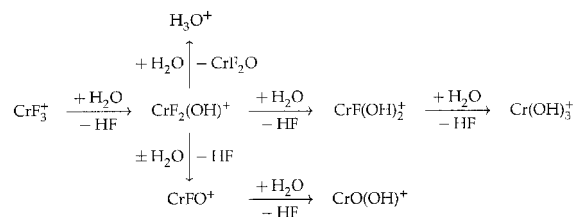
Salicylaldimine Dizinc Complexes: Activation of Water Molecules and Fixation of CO₂ in the Coordination Sphere of Zinc



Keywords: Zinc / N ligands / N,O ligands / Carbon dioxide fixation / Enzyme models

1622 U. Mazurek, D. Schröder, H. Schwarz*

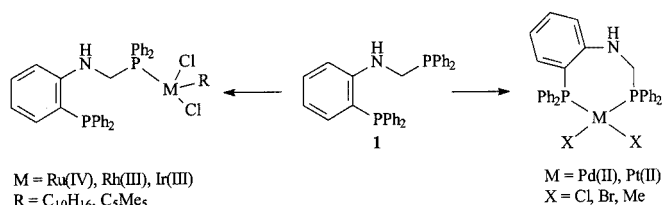
Gas-Phase Reactions of Chromium and Chromium Fluoride Cations CrF_n⁺ (*n* = 0–4) with Water and Nitrous Oxide



Keywords: Chromium / Chromium fluorides / Hydrolysis / Gas-phase ion chemistry / Thermochemistry

1635 Q. Zhang, S. M. Aucott, A. M. Z. Slawin, J. D. Woollins*

Synthesis and Coordination Chemistry of the New Unsymmetrical Ligand Ph₂PCH₂NHC₆H₄-PPh₂

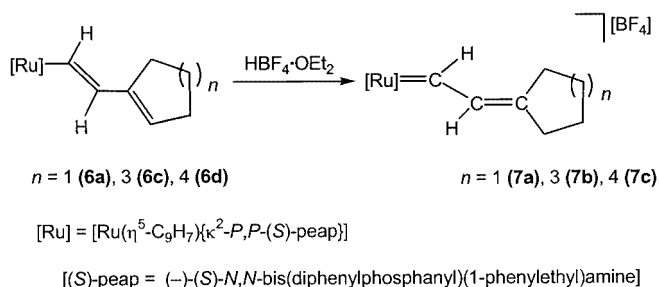


Keywords: Unsymmetrical ligands / Phosphanes / Chelates / Monodentate complexes / Heterometallic complexes

- 1647** K. Bieger, J. Díez, M. P. Gamasa,*
J. Gimeno, M. Pavlišta,
Y. Rodríguez-Álvarez, S. García-Granda,
R. Santiago-García

(Alkenylalkylidene)(indenyl)ruthenium(II) Complexes: Synthesis by Protonation of Alkenyl Derivatives

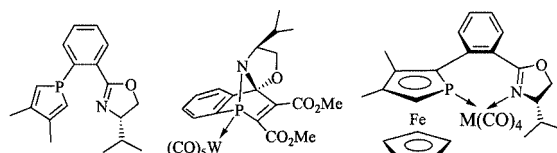
Keywords: Ruthenium / Hydride ligands / Alkenyl complexes / Alkylidene complexes / P ligands



- 1657** X. Sava, A. Marinetti,* L. Ricard,
F. Mathey

Optically Active Phospholes: Synthesis and Use as Chiral Precursors for Phosphinidene and Phosphaferrocene Complexes

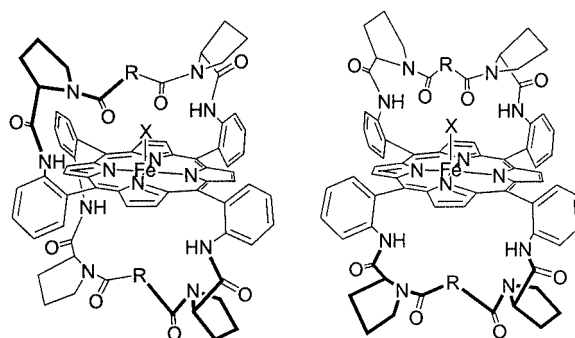
Keywords: Phosphorus heterocycles / Asymmetric catalysis / P ligands / Phosphinidene complexes / Chiral phospholes / Phosphaferrocenes



- 1666** B. Boitrel,* V. Baveux-Chambenoît,
P. Richard

Investigation of the Enantioselectivity Observed in Epoxidation Reactions Catalysed by Bis-Strapped Chiral Porphyrins Derived from L-Proline

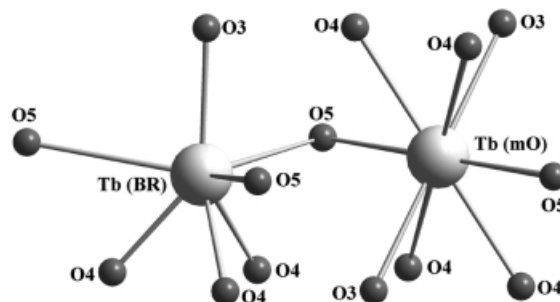
Keywords: L-Proline / Epoxidations / Porphyrins / Enantioselectivity / Iron



- 1673** F. Soetebier, W. Urland*

Structural Chemistry and Magnetism of Tb³⁺-β''-Alumina (Tb_{0.46}Al_{10.62}Mg_{0.38}O₁₇)

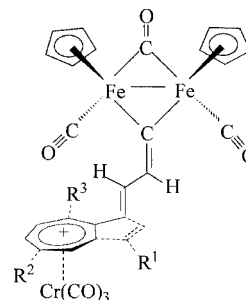
Keywords: Aluminum / Magnesium / Terbium / Ion exchange / Crystal structure / Magnetic properties



- 1677** T. Farrell,* A. R. Manning,* G. Mitchell, J. Heck,* T. Meyer-Friedrichsen, M. Malessa, C. Wittenburg, M. H. Prosenc, D. Cunningham, P. McArdle

Synthesis and Properties of a Novel Series of Organometallic Merocyanines Combining the Potent Electron-Donating $[(\text{CpFeCO})_2(\mu\text{-CO})-(\mu\text{-C=CH-})]$ Fragment with Tropylium-Type Acceptors

Keywords: Organometallic compounds / Merocyanines / Azulenes / Bond length alternation / Solvatochromism / Nonlinear optics (NLO) / Long-wavelength hyper-Rayleigh scattering (HRS)

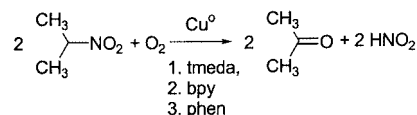


- 1687** E. Balogh-Hergovich, Z. Grécsi, J. Kaizer, G. Speier,* M. Réglér, M. Giorgi, L. Párkányi



Kinetics and Mechanism of the Copper-Catalysed Oxygenation of 2-Nitropropane

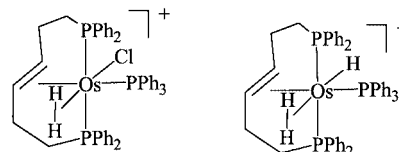
Keywords: 2-Nitropropane / Copper nitronates / Oxygenation / Copper / Kinetics / Dioxygenase



- 1697** S. H. Liu, X. Huang, Z. Lin,* C. P. Lau,* G. Jia*

Synthesis and Characterization of Dihydrogen-(olefin)osmium Complexes with (E)- $\text{Ph}_2\text{P}(\text{CH}_2)_2\text{CH}=\text{CH}(\text{CH}_2)_2\text{PPh}_2$

Keywords: Dihydrogen / Diphosphane / Hydride / Osmium

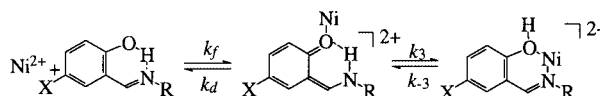


- 1703** I. Cacelli, L. Carbonaro,* P. La Pega



Kinetics and Equilibria of Nickel(II)–Schiff Base Adducts Formation

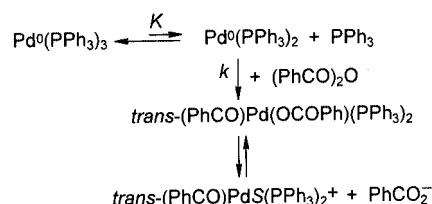
Keywords: Kinetics / Nickel / Schiff base / Adducts / Substituent effects



- 1711** A. Jutand,* S. Négri, J. G. de Vries

Rate and Mechanism of the Oxidative Addition of Benzoic Anhydride to Palladium(0) Complexes in DMF

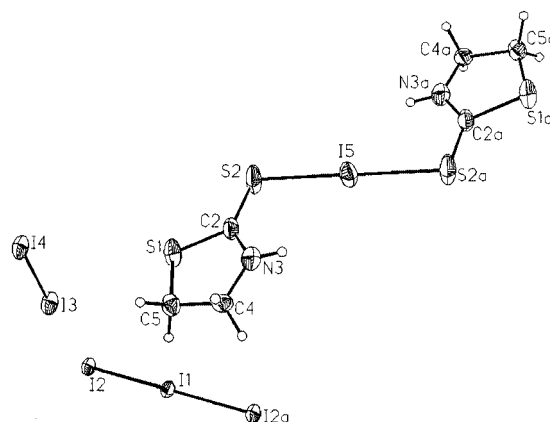
Keywords: Palladium / Kinetics / Electrochemistry / Benzoic anhydride / Oxidative addition



1718 V. Daga, S. K. Hadjikakou, N. Hadjiliadis,*
M. Kubicki, J. H. Z. dos Santos, I. S. Butler

Synthesis, Spectroscopic and Structural Characterization of Novel Diiodine Adducts with the Heterocyclic Thioamides, Thiazolidine-2-thione (tzdtH), Benzothiazole-2-thione (bztzdtH) and Benzimidazole-2-thione (bzimthH)

Keywords: Bioinorganic chemistry / Charge-transfer complexes / Iodine / S ligands / Sulfur heterocycles

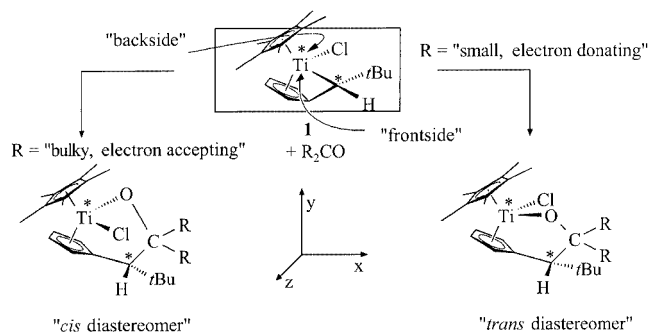


1729 J. Stroot, R. Beckhaus,* W. Saak, D. Haase,
A. Lützen



Reactions of Pentafulvene Complexes of Titanium with Carbonyl Compounds – Diastereoselective Synthesis of σ,π -Chelate Complexes with Cp~O Ligands

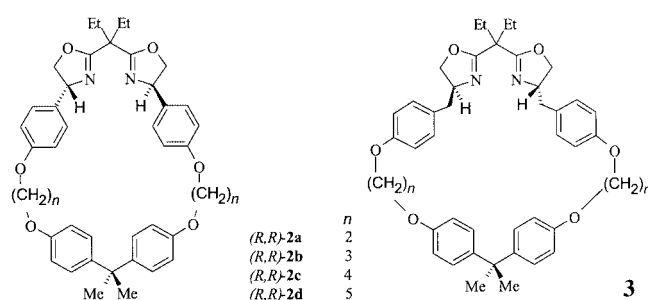
Keywords: Titanium / Fulvene complexes / Reaction mechanism / Substituent effects / Stereoselectivity / O ligands / Cyclopentadienyl ligands



1738 M. Hollosi, Z. Majer, E. Vass, Z. Raza,
V. Tomišić, T. Portada, I. Piantanida,
M. Žinić, V. Šunjić

Structural and Chiroptical Properties of Acyclic and Macrocyclic 1,5-Bis(oxazoline) Ligands and Their Copper(I) and Silver(I) Complexes

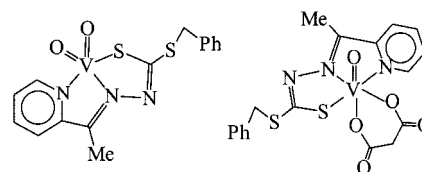
Keywords: Circular dichroism / Conformation analysis / Copper / Silver / Bis(oxazoline) ligands / Macrocyclic ligands



1749 M. R. Maurya,* S. Khurana, W. Zhang,
D. Rehder

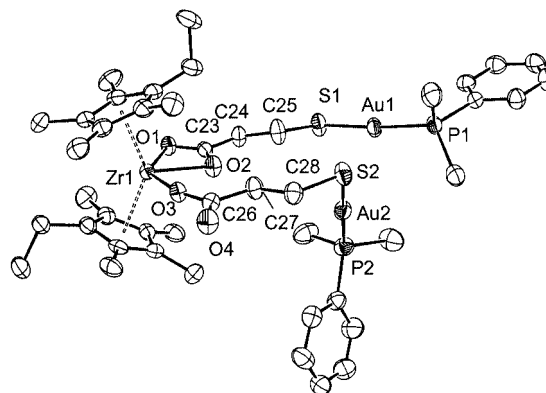
Vanadium(IV/V) Complexes Containing $[\text{VO}]^{2+}$, $[\text{VO}]^{3+}$, $[\text{VO}_2]^+$ and $[\text{VO}(\text{O}_2)]^+$ Cores with Ligands Derived from 2-Acetylpyridine and *S*-Benzyl- or *S*-Methyldithiocarbamate

Keywords: Malonate / Oxo transfer / Sulfur ligands / Hydrazones / Vanadium



1761 B. Wenzel, P. Lönnecke, E. Hey-Hawkins*

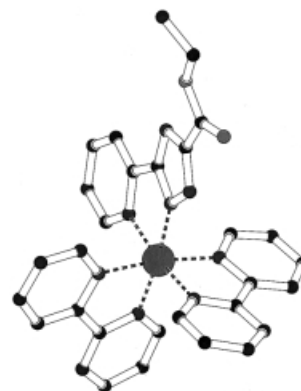
Gold(I) Thiolates as Metalloligands for the Synthesis of the First Zirconocene–Gold Complexes



Keywords: Metallocenes / Zirconium / Gold / O,S ligands / Bridging ligands

1765 B. Mehmetaj, J. G. Haasnoot,* L. De Cola, G. A. van Albada, I. Mutikainen, U. Turpeinen, J. Reedijk

Syntheses, Characterization, X-ray Crystal Structure, Redox and Photophysical Properties of Polypyridylruthenium(II) Complexes Containing Carboxylate-Substituted Pyridyltriazoles

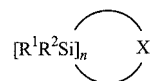


Keywords: Ruthenium / N ligands / Crystal structure / Photophysical properties / Redox potentials

1772 H. Watanabe,* H. Suzuki, S. Takahashi, K. Ohyama, Y. Sekiguchi, H. Ohmori, M. Nishiyama, M. Sugo, M. Yoshikawa, N. Hirai, Y. Kanuma, T. Adachi, M. Makino, K. Sakata, K. Kobayashi, T. Kudo,* H. Matsuyama, N. Kamigata, M. Kobayashi, M. Kijima,* H. Shirakawa, K. Honda, M. Goto*



Peralkylated Four- and Five-Membered Cyclosilanes Containing a Heteroatom: Synthesis, Structure, and Properties



$R^1, R^2 = iPr, tBuCH_2$

$(R^1 = R^2 \text{ or } R^1 \neq R^2)$

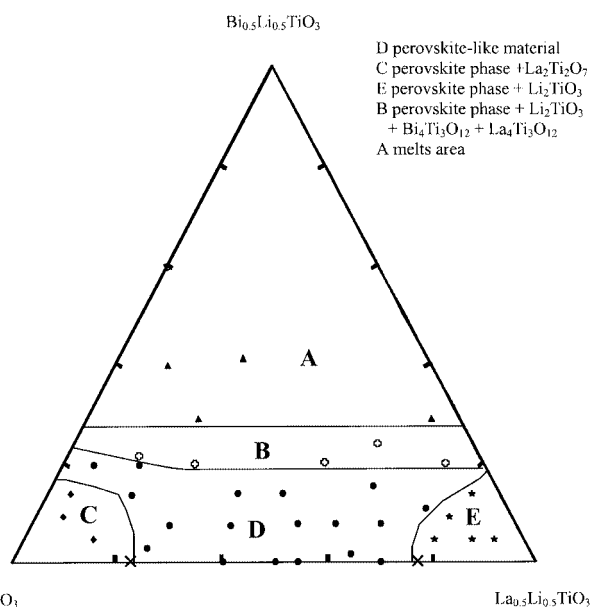
$n = 3, 4$

$X = CH_2, NR^3, O, SiR_2, GeR'_2$

Keywords: HOMO–LUMO interactions / Photolysis / Small ring systems / Silicon / Strained molecules

- 1794** M.-L. Martínez-Sarrión,* L. Mestres,
M. Herráiz, O. Maqueda, A. Bakkali,
N. Fernández

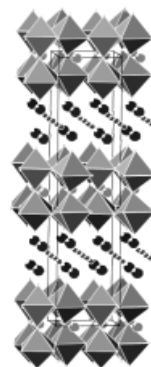
Phase Diagram and Impedance Spectroscopy
Study of the $\text{La}_{0.5+x-y}\text{Bi}_y\text{Li}_{0.5-3x}\text{TiO}_3$ System



Keywords: Phase diagrams / Perovskite phases /
Conducting materials / Lanthanides

- 1801** M.-L. Martínez-Sarrión,* L. Mestres,
M. Herraiz, A. M. Balagurov,
A. I. Beskrovniy, S. G. Vasilovskij,
L. S. Smirnov

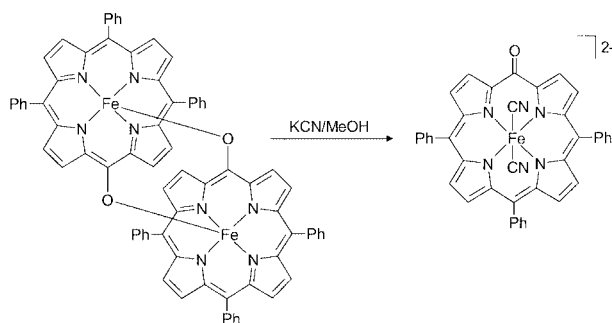
Synthesis and Characterization of a New
Aurivillius Phase



Keywords: Aurivillius phase / Neutron diffraction /
Solid-state structures / Perovskite phases

- 1806** J. Wojaczyński, M. Stępień,
L. Latos-Grażyński*

Monomeric and Dimeric Iron(III) Complexes of
5-Hydroxy-10,15,20-triphenylporphyrin: Formation
of Cyano and Pyridine Complexes of
(5-Oxo-10,15,20-triphenylphlorin)iron



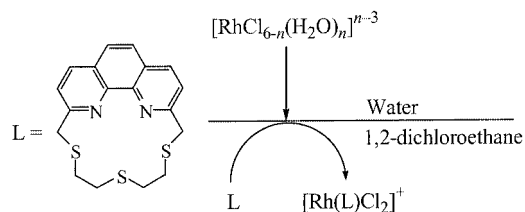
Keywords: Porphyrinoids / Oxophlorins / Iron /
Electronic structure / NMR spectroscopy

1816

A. J. Blake, M. H. M. Caçote,
F. A. Devillanova, A. Garau, F. Isaia,
V. Lippolis,* C. M. Pereira, F. Silva,
L. Tei

Coordination Chemistry of 2,5,8-Trithia[9],(2,9)-1,10-phenanthrolinephane (L) toward Rhodium(III) at the Polarised Water/1,2-Dichloroethane Interface – A Possible New Approach to the Problem of Separating Rh^{III} from Chloride Media

Keywords: Rhodium / Macrocyclic ligands / Interfaces / Cyclic voltammetry

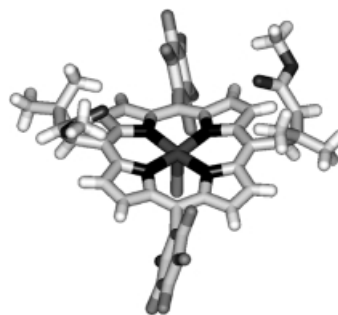


1823

S.-Q. Liu, J. Pécaut, J.-C. Marchon*

Control of Epoxidation Enantioselectivity by Axial Ligation in Manganese Chiorporphyrins with Diastereotopic Faces

Keywords: Porphyrins / Enantioselectivity / Ligand effects / Manganese

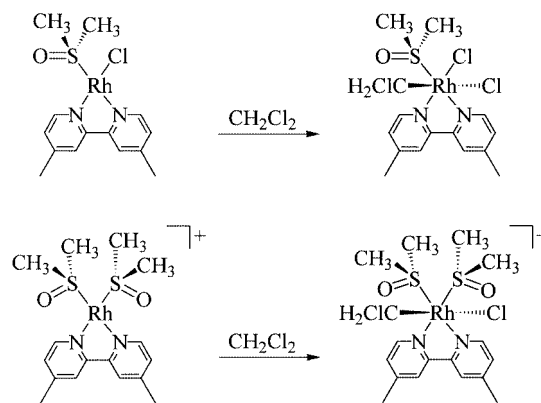


1827

R. Dorta, L. J. W. Shimon, H. Rozenberg,
D. Milstein*

Facile Oxidative Addition of C–Cl Bonds to New Neutral and Cationic Rhodium(I)-Bipyridine Complexes

Keywords: Rhodium / N ligands / Oxidative addition / Peroxo complexes

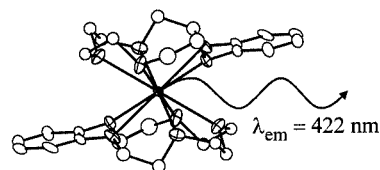


1835

P. Starynowicz,* K. Bukietyńska

A Europium(II) Complex with Benzo-15-Crown-5

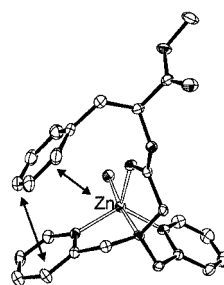
Keywords: Europium / Crown compounds / X-ray diffraction / Luminescence / Lanthanides



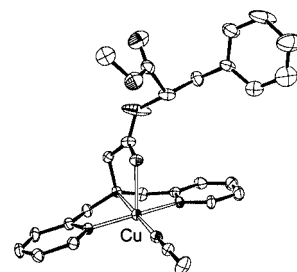
1839 N. Niklas, F. Hampel, O. Walter, G. Liehr,
R. Alsasser*

Synthesis, Structures, and Redox Properties of
Copper Complexes with Chiral and Achiral
Amino Acid Derived Ligands

Keywords: Amino acids / Chirality / Copper / Redox
chemistry



Trigonal-Bipyramidal
Zinc(II) Complexes

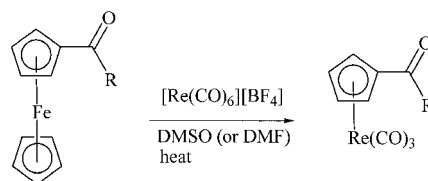


Square-Pyramidal
Copper(II) Complexes

1848 S. Top,* S. Masi, G. Jaouen*

The $[\text{Re}(\text{CO})_6]^+$ Cation as a Ligand-Transfer
Reagent with Ferrocene Derivatives

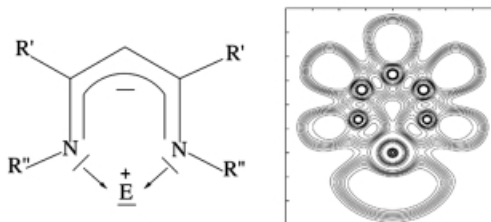
Keywords: Carbonyl(cyclopentadienyl)rhenium / Hexa-
carbonylrhenium / Ferrocene / Ligand
transfer



1854 M. Reiher,* A. Sundermann

Do Divalent $[\{\text{HC}(\text{CR}'\text{NR}'')_2\text{E}]$ Compounds
Contain E(I) or E(III) (E = B, Al, Ga, In)?
On the Correspondence of Formal Oxidation
Numbers, Lewis Structures, and Reactivity

Keywords: Oxidation number analysis / Group-13
carbene analogs / Density functional
calculations

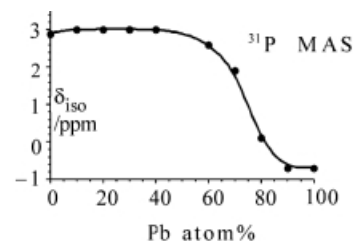
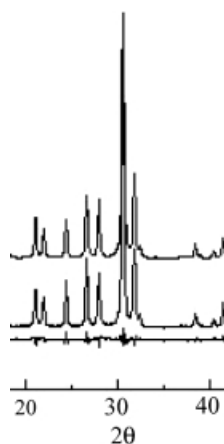


1864 B. Badraoui, A. Bigi,* M. Debbabi,
M. Gazzano, N. Roveri, R. Thouvenot



Physicochemical Properties and Structural
Refinement of Strontium-Lead Hydroxyapatites

Keywords: Hydroxyapatite / X-ray diffraction / IR
spectroscopy / ^{31}P MAS NMR / Ionic
substitution

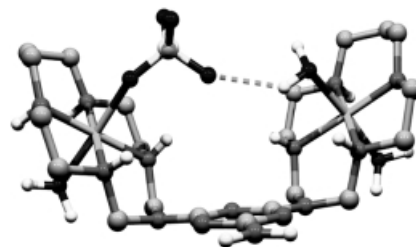


-
- 1871** **P. Comba,* Y. D. Lampeka,***
A. Y. Nazarenko, A. I. Prikhod'ko,
H. Pritzkow, J. Taraszewska



Cooperative Effects in the Binding of Substrates to Nickel(II) and Nickel(III) Complexes with a Bis(macrocyclic) Ligand

Keywords: Template reaction / Spin equilibrium / Recognition / Cooperative effects / Nickel / N ligands



CORRECTION

- 1883** **T. Höcher, S. Blaurock, E. Hey-Hawkins***

Novel Ferrocene Derivatives with PH-Functionalized Phosphanylalkylcyclopentadienyl Ligands: Syntheses and Molecular Structures of *rac*-[Fe{(η⁵-C₅H₄)CMe₂PHR}₂] (R = Ph, Mes) and *rac*-[Fe{(η⁵-C₅H₄)CMe₂PHPh(Cp*TaCl₄)₂}]
