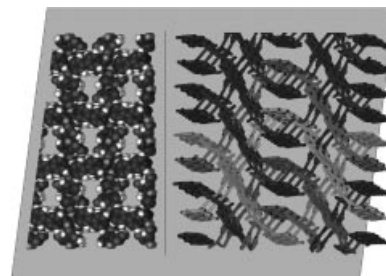


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COVER PICTURE

The cover picture shows a mixed-valence copper(I,II) coordination polymer $[\text{Cu}^{\text{I}}_2\text{Cu}^{\text{II}}(4,4'\text{-bpy})_2(\text{pydc})_2] \cdot 4\text{H}_2\text{O}$ (4,4'-bpy = 4,4'-bipyridine; pydc = pyridine-2,4-dicarboxylate) featuring the “metal-complex ligands” $[\text{Cu}^{\text{II}}(\text{pydc})_2]^{2-}$ synthesized hydrothermally using $\text{Cu}(\text{MeCO}_2)_2$, pyridine-2,4-dicarboxylate, 4,4'-bipyridine and NaOH. Single-crystal structure analysis exhibits this compound to be the first porous 3-D framework constructed from five-fold parallel interpenetration of 2-D (6,3) nets (right-hand side). The one-dimensional channels in the 3-D framework (left-hand side) occupying 17.4% of the crystal volume are occupied by guest water molecules. The porous network is stable after removal of the lattice water molecules, which may be attributed to the multiple entanglement of the 2-D nets. Details are discussed in the article by X.-M. Zhang and X.-M. Chen on p. 413 ff.



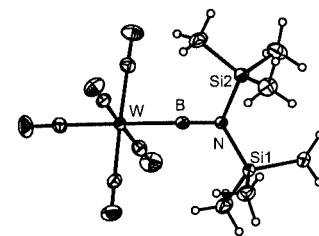
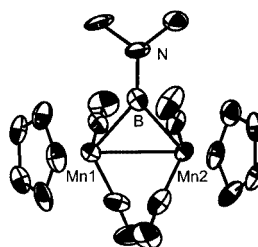
MICROREVIEW

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393 H. Braunschweig,* M. Colling

The Chemistry of Borylene Complexes

Keywords: Boron / Borylene complexes / Transition metals

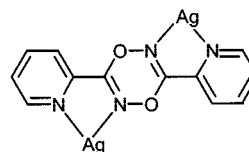


SHORT COMMUNICATIONS

405 C. Richardson, P. J. Steel*

3,6-Di(2-pyridyl)-1,4,2,5-dioxadiazine and a Silver Coordination Polymer with an Unprecedented Metallosupramolecular Topology

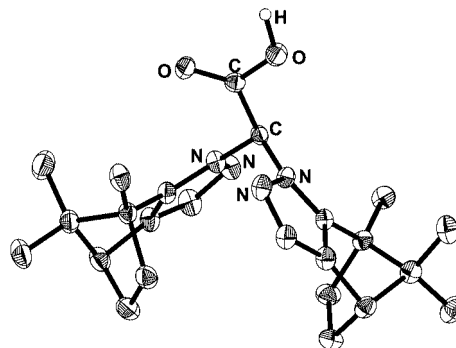
Keywords: Silver / Coordination polymers / Bridging ligands / N ligands



409 I. Hegelmann, N. Burzlaff*

Direct Synthesis of Enantiopure Tripod Ligands from C_2 -Symmetric Precursors

Keywords: N ligands / Tripod ligands / Chirality / Pro-chirality / Ruthenium

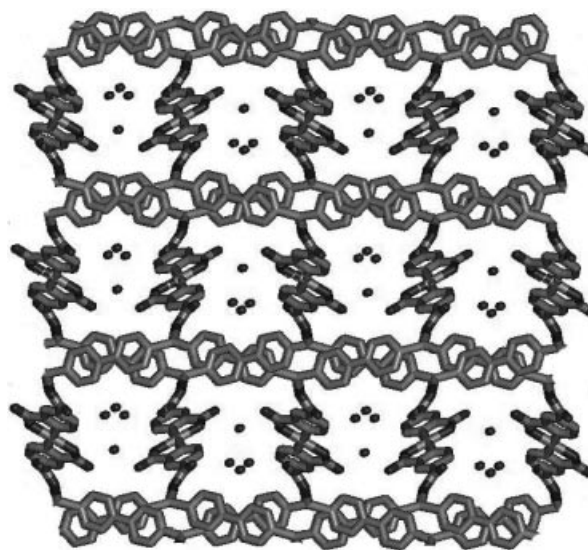


FULL PAPERS

413 X.-M. Zhang, X.-M. Chen*

A New Porous 3-D Framework Constructed From Fivefold Parallel Interpenetration of 2-D (6,3) Nets: A Mixed-Valence Copper(I,II) Coordination Polymer $[\text{Cu}_2\text{Cu}^{\text{II}}(4,4'\text{-bpy})_2(\text{pydc})_2] \cdot 4\text{H}_2\text{O}$

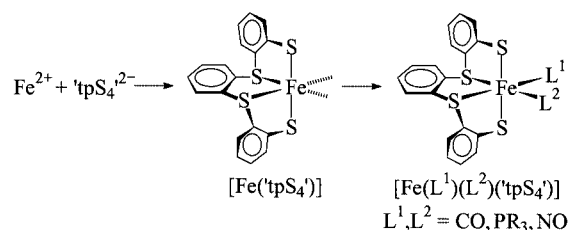
Keywords: Coordination polymers / Microporous materials / Mixed-valent compounds / Copper / N ligands



418 D. Sellmann,* D. C. F. Blum, F. W. Heinemann, J. Sutter

Synthesis, Structure and Reactivity of Sulfur-Rich $[\text{Fe}(\text{L}^1)(\text{L}^2)(\text{'tpS}_4)]$ Complexes with Rigid $[\text{Fe}(\text{'tpS}_4)]$ Cores and σ - π Co-Ligands ($\text{'tpS}_4^{2-} = 1,2\text{-Bis}(2\text{-mercaptophenylthio})\text{phenylene}(2-)$; $\text{L}^1, \text{L}^2 = \text{CO}, \text{PR}_3, \text{NO}$)

Keywords: Helical structures / Iron / S ligands

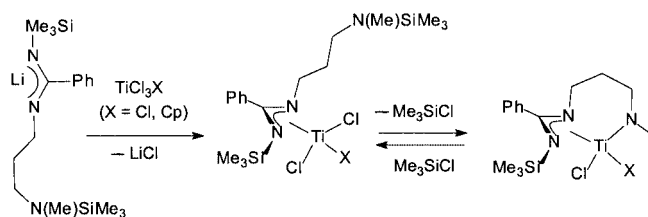


427

W. J. van Meerendonk, K. Schröder,
E. A. C. Brussee, A. Meetsma, B. Hessen,*
J. H. Teuben

Chloro- and Alkyltitanium Complexes of a New
Dianionic Ancillary Ligand: A Linked Amid-
inate–Amide

Keywords: N ligands / Tridentate ligands / Titanium /
Alkyl complexes

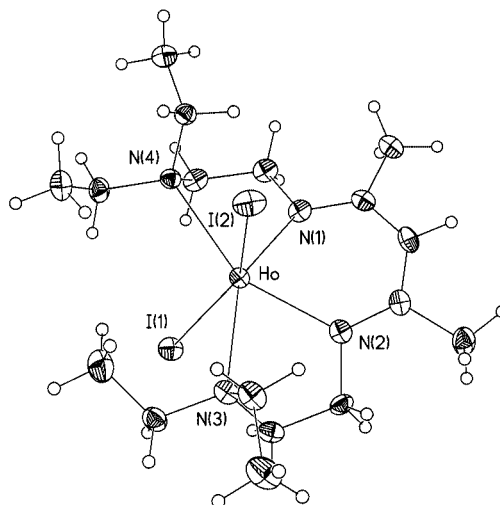


433

G. B. Nikiforov, H. W. Roesky,* T. Labahn,
D. Vidovic, D. Neculai

Synthesis and Structure of the First Holmium
and Erbium Diiodide Complexes of Composi-
tion $LLnI_2$ ($Ln = Ho, Er$)

Keywords: Lanthanides / Iodides / Coordination
chemistry / N ligands

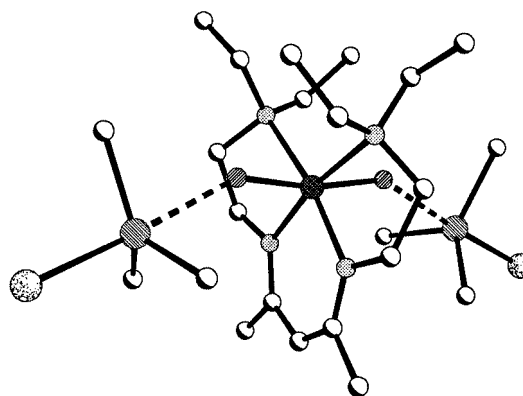


437

G. B. Nikiforov, H. W. Roesky,* J. Magull,
M. Noltemeyer, H.-G. Schmidt, E. G. Ilyin,
Y. B. Kokunov, A. Demsar

Synthesis and Structure of the First Non-Metal-
locene Ti^{III} Fluoride Complex $LTiF_2 \cdot 2Me_3SnCl$
Supported by a β -Diketiminato Ligand

Keywords: Titanium / Fluorides / Coordination
chemistry / N ligands

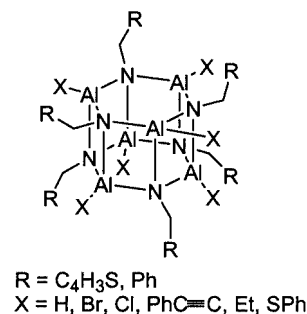


442

N. D. Reddy, S. S. Kumar, H. W. Roesky,*
D. Vidovic, J. Magull, M. Noltemeyer,
H.-G. Schmidt

Synthesis of a Hexadentate Hexameric Alumi-
num Imide and Its Metathesis Reactions

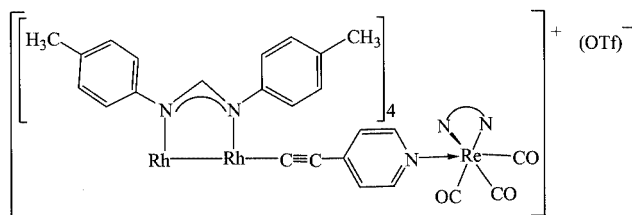
Keywords: Aluminum / Hydride ligands / N ligands /
S ligands / Cluster compounds



449 J.-L. Zuo, F. F. de Biani, A. M. Santos, K. Köhler, F. E. Kühn*

4-Ethynylpyridine as a Bridging Moiety in Mixed Rh/Re Complexes

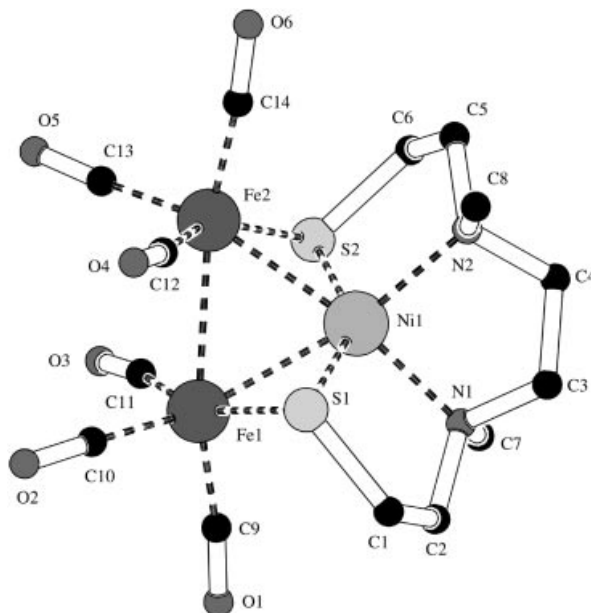
Keywords: N ligands / Metal-metal interactions / Oligomers / Rhenium / Rhodium



453 M.-C. Chabot, A. M. Mills, A. L. Spek, G. J. Long, E. Bouwman*

Structure and Electronic Properties of $[\text{Ni}(\text{dsdm})\{\text{Fe}(\text{CO})_3\}_2]$, an Unusual, Triangular Nickel Diiron Compound

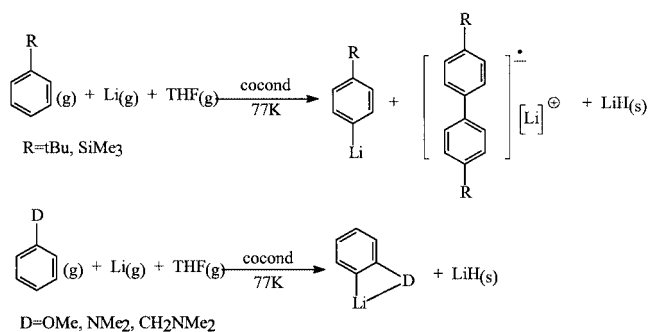
Keywords: Carbonyl ligands / Cluster compounds / Iron / Nickel



458 J. P. Dunne, M. Bockmeyer, M. Tacke*

Co-Condensation Reactions of Substituted Aromatic Compounds with Lithium Atoms at 77 K

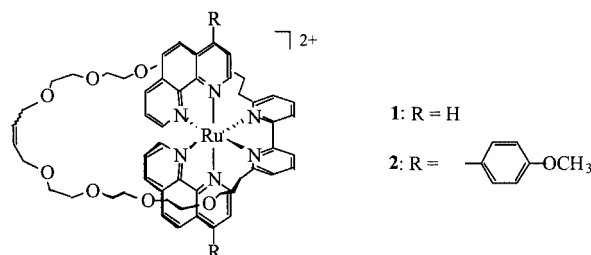
Keywords: Lithium / C–H bond activation / Co-condensation / Density functional calculations



467 A.-C. Laemmel, J.-P. Collin,* J.-P. Sauvage,* G. Accorsi, N. Armaroli*

Macrocyclic Complexes of $[\text{Ru}(\text{N-N})_2]^{2+}$ Units [N-N = 1,10 Phenanthroline or 4-(*p*-Anisyl)-1,10-Phenanthroline]: Synthesis and Photochemical Expulsion Studies

Keywords: Ruthenium / Macrocycles / Receptors / Photochemistry / Molecular machines

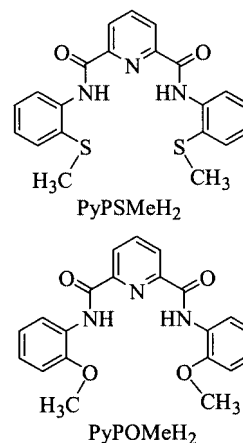


475

T. C. Harrop, L. A. Tyler,
M. M. Olmstead, P. K. Mascharak*

Change in the Spin State of an Fe^{III} Center upon One N-to-O Switch in the Coordination of a 2,6-Pyridinedicarboxamido Unit: The Effect of Methyl Thioether and Methyl Ether Appendages at the Ligand Periphery

Keywords: Iron / N ligands / S ligands / Spin states / EPR spectroscopy

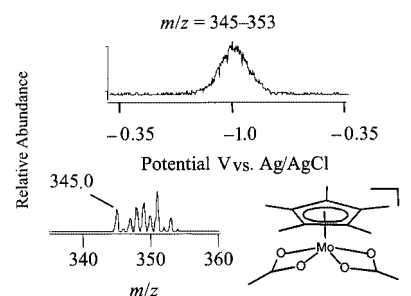


482

J. Gun,* A. Modestov, O. Lev, D. Saurenz,
M. A. Vorotyntsev, R. Poli*

Studies on the Reduction of [(C₅Me₅)₂Mo₂O₅] in Methanol/Water/Acetate Solutions by On-Line Electrochemical Flowcell and Electrospray Mass Spectrometry

Keywords: Cyclopentadienyl ligands / Electrochemistry / Mass spectrometry / Molybdenum / Oxo ligands

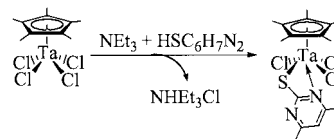


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R. Fandos,* C. Hernández, A. Otero,*
A. Rodríguez, M. J. Ruiz, P. Terreros

New Monocyclopentadienyl Complexes of Tantalum(v) and Titanium(IV) with Chelating Pyrimidinethiolate and Oxypyridine Ligands – Molecular Structure of [Cp*TaCl₃(SC₆H₇N₂)]

Keywords: N ligands / S ligands / Tantalum / Titanium / Cyclopentadienyl ligands

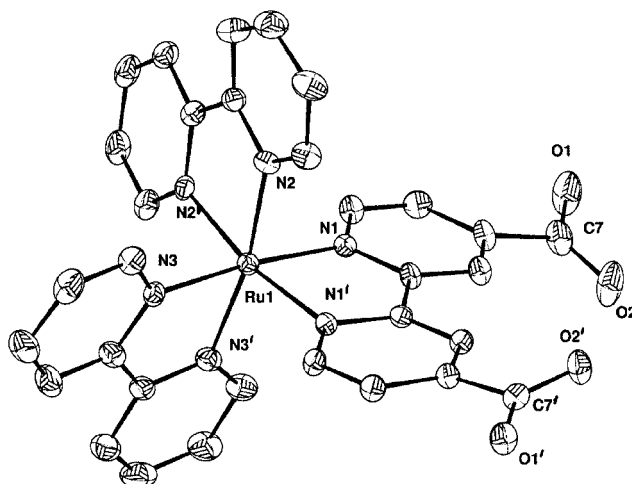


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R. Caspar, H. Amouri,* M. Gruselle,
C. Cordier, B. Malézieux, R. Duval,
H. Leveque

Efficient Asymmetric Synthesis of Δ- and Λ-Enantiomers of (Bipyridyl)ruthenium Complexes and Crystallographic Analysis of Δ-Bis(2,2'-bipyridine)(2,2'-bipyridine-4,4'-dicarboxylato)-ruthenium: Diastereoselective Homo- and Heterochiral Ion Pairing Revisited

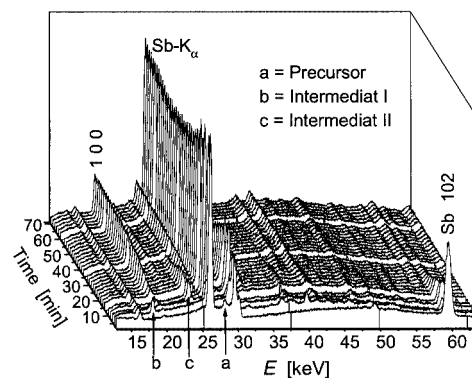
Keywords: Ruthenium / Chiral resolution / Circular dichroism



506 L. Engelke,* M. Schaefer, F. Porsch,
W. Bensch

In-situ Energy-Dispersive X-ray Diffraction
Studies of Crystal Growth and Compound
Conversion Under Solvothermal Conditions

Keywords: X-ray diffraction / Cell design / Kinetics /
Solvothermal synthesis / Thioantimonates

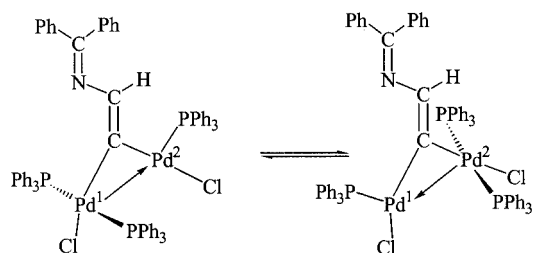


514 M. Knorr,* G. Schmitt*, M. M. Kubicki,
E. Vigier



Formation of (σ-Alkenyl)- and (μ-Vinylidene)palladium and -platinum Complexes by
Oxidative Addition of 4,4-Dichloro-1,1-di-
phenyl-2-azabuta-1,3-diene – The Molecular
Structure of an Unusual Asymmetric (μ-Vinyl-
idene)Pd–Pd Complex

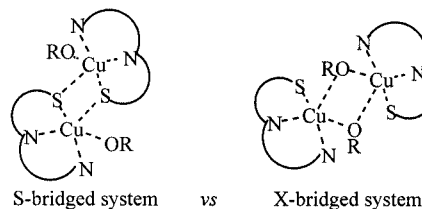
Keywords: Palladium / Vinylidene ligands / Platinum /
Metal-metal interactions



518 P. Gómez-Saiz, J. García-Tojal,* A. Mendia,
B. Donnadieu, L. Lezama, J. L. Pizarro,
M. I. Arriortua, T. Rojo

Coordination Modes in a Tridentate NNS
(Thiosemicarbazonato)copper(II) System Con-
taining Oxygen-Donor Coligands – Structures
of [$\{\text{Cu}(\text{L})(\text{X})\}_2$] (X = Formato, Propionato,
Nitrito)

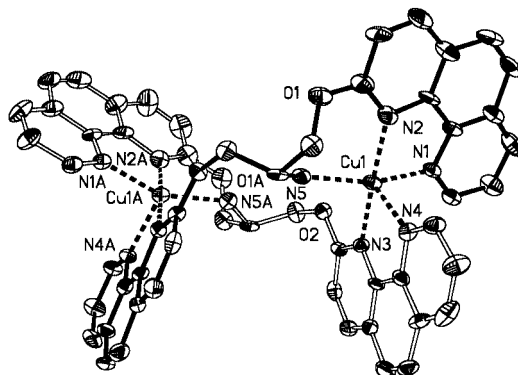
Keywords: Copper / Magnetic properties / Stacking
interactions / Thiosemicarbazone com-
plexes



528 M. Pitié, C. Boldron, H. Gornitzka,
C. Hemmert, B. Donnadieu, B. Meunier*

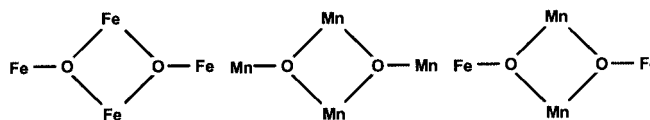
DNA Cleavage by Copper Complexes of 2- and
3-Clip-Phen Derivatives

Keywords: Copper / DNA cleavage / Helical struc-
tures / Ligand design / N ligands



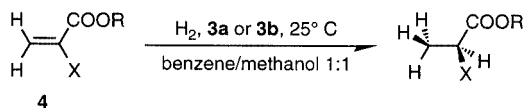
541 P. Chaudhuri,* E. Rentschler, F. Birkelbach,
C. Krebs, E. Bill, T. Weyhermüller, U. Flörke

Ground Spin State Variation in Carboxylate-Bridged Tetranuclear $[\text{Fe}_2\text{Mn}_2\text{O}_2]^{8+}$ Cores and a Comparison with Their $[\text{Fe}_4\text{O}_2]^{8+}$ and $[\text{Mn}_4\text{O}_2]^{8+}$ Congeners



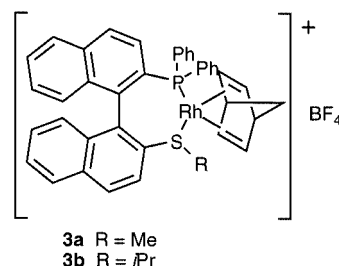
Keywords: Oxo ligands / Carboxylate ligands / Iron / Manganese / Magnetic properties / Tetranuclear complexes

556 S. Gladiali,* F. Grepioni, S. Medici,
A. Zucca, Z. Berente, L. Kollár



Up to 94% conversion and up to 60% ee

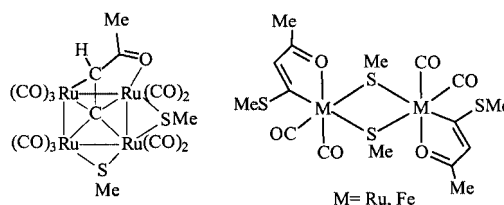
Chiral Complexes of Rh^{I} Containing Binaphthalene-Core P,S-Heterobidentate Ligands – Synthesis, Characterization, and Catalytic Activity in Asymmetric Hydrogenation of α,β -Unsaturated Acids and Esters



Keywords: S ligands / P ligands / Rhodium / Asymmetric catalysis / Hydrogenations

562 C. Alvarez-Toledano, E. Delgado,*
B. Donnadieu, M. A. Gómez, E. Hernández,
G. Martín, F. Ortega-Jiménez, F. Zamora

Activation of C–S Bonds in Organosulfur Compounds Containing α,β -Unsaturated Ketone Systems by Carbonylruthenium and -iron Complexes



Keywords: Vinylidene ligands / Clusters / Iron / Carbonyl ligands / Ruthenium