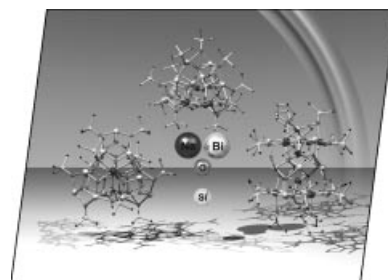




The editorial staff and the publishers thank all readers, authors, referees, and advertisers for their interest and support over the past year and wish them all a happy new year.

COVER PICTURE

The cover picture shows three heterobimetallic sodium-bismuth-oxo silanolates: $[\text{Bi}_{10}\text{Na}_5\text{O}_7(\text{OH})_6(\text{OSiMe}_3)_{15}]$ (2), $[\text{Bi}_{15}\text{Na}_3\text{O}_{18}(\text{OSiMe}_3)_{12}]$ (3) and $[\text{Bi}_{14}\text{Na}_8\text{O}_{18}(\text{OSiMe}_3)_{14}(\text{thf})_4]$ (4). These novel polynuclear metal-oxo clusters were obtained in addition to the hexanuclear oxygen-centred complex $[\text{Bi}_2\text{Na}_4\text{O}(\text{OSiMe}_3)_8]$ (1), which represents a well-known structural motif found in several heterometallic group 15/group 1 compounds. As result of the similar ionic radii of sodium and bismuth and the flexible coordination chemistry of these main group metals, the formation of a large variety of heterobimetallic molecular structures is conceivable. Structural relationships between the metal-oxo silanolates are described and a comparison with other polynuclear bismuth-oxo compounds is given in order to identify basic building blocks. The approach is envisaged to develop rational design strategies towards molecular bismuth-containing precursors for heterometallic materials. Details are discussed in the article by M. Mehring et al. on p. 4891 ff.



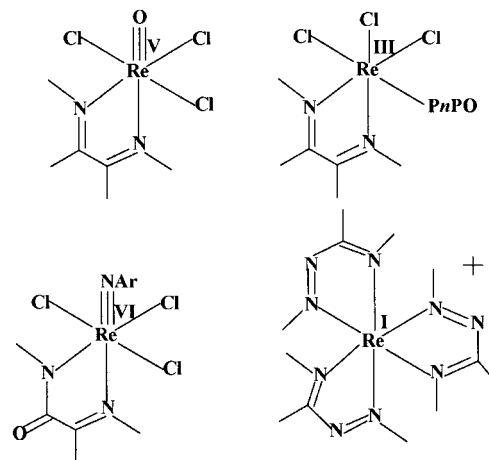
MICROREVIEW

Contents

4863 A. Chakravorty*

Variable-Valent Rhenium Chemistry of Conjugated Nitrogenous Ligands: Structure and Reactivity

Keywords: Rhenium / Variable valence / Conjugated nitrogen ligands / Oxygen atom transfer / Isomer specificity / Twin isomerization

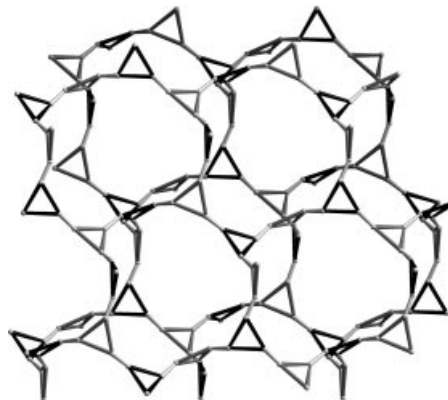


SHORT COMMUNICATIONS

4875 A. Zharkouskaya, A. Buchholz, W. Plass*

A New Coordination Polymer Architecture with (10,3)-a Network Containing Chiral Hydrophilic 3-D Channels

Keywords: Coordination polymer / Copper / Magnetic properties / N,O ligands

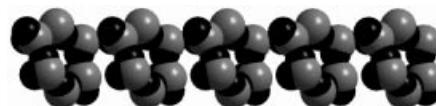


4880 S. K. Ghosh, P. K. Bharadwaj*



Infinite Chains of Quasi-Planar Hexameric Water Clusters Stabilized in a Metal-Organic Framework Built from Co^{II} and Pyrazine-2,3,5,6-tetracarboxylic Acid

Keywords: Water cluster / Supramolecular chemistry / Self assembly / Organic-inorganic hybrid composite

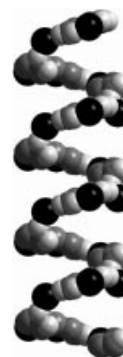


4886 S. K. Ghosh, P. K. Bharadwaj*



Octameric Water Clusters of Staircase Structure Present in a Metal-Organic Framework Built from Helical Lanthanide Coordination Polymers

Keywords: Water chemistry / Supramolecular chemistry / Self assembly / Metal-organic framework / Helical structure

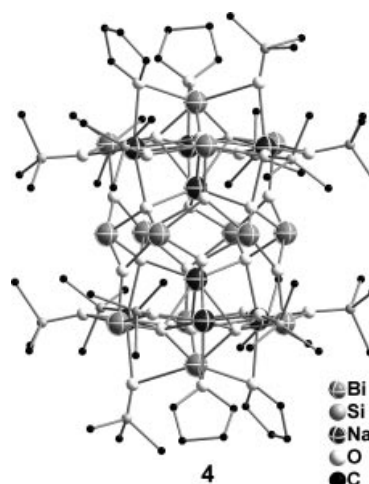


FULL PAPERS

4891 M. Mehring,* S. Paalasmaa, M. Schürmann

Structural Relationships in High-Nuclearity Heterobimetallic Bismuth-Oxo Clusters

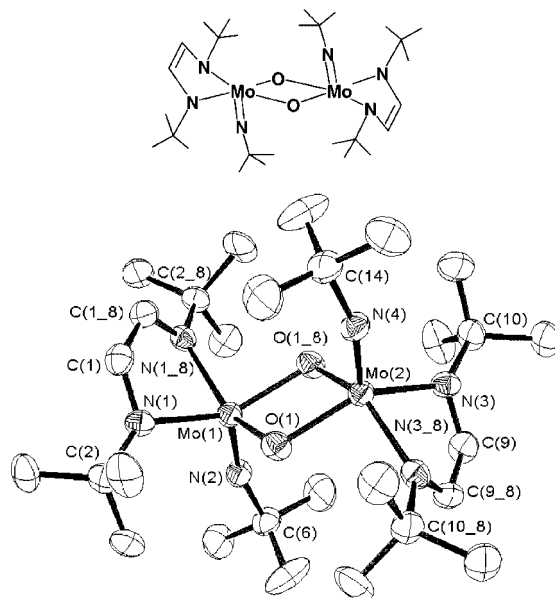
Keywords: Bismuth / Sodium / Silanolate / Metal-oxo cluster / Structure elucidation



4902 A. Merkoulov, K. Harms, J. Sundermeyer*

Synthesis and Investigations of the Crystal Structure of a Dinuclear Diazadiene Molybdenum Oxo-Imido Complex with a Unique $N_3Mo(\mu-O)_2MoN_3$ Core

Keywords: Molybdenum / Oxo ligands / Imido ligands / Metathesis / Crystal structure

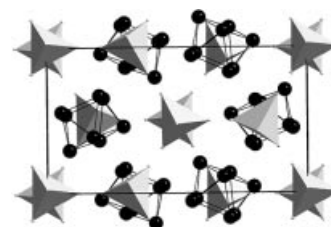


4907 A. N. Kuznetsov, B. A. Popovkin, K. Ståhl, M. Lindsjö, L. Kloo*



Synthesis of Main Group Polycations in Molten and Pseudo-Molten $GaBr_3$ Media

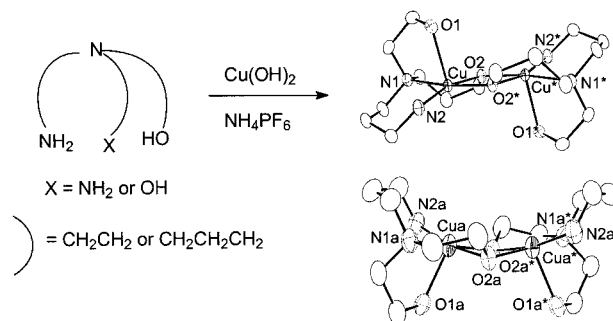
Keywords: Antimony / Bismuth / Tellurium / Cluster compounds



4914 C. Jocher, T. Pape, W. W. Seidel, P. Gamez, J. Reedijk, F. E. Hahn*

Catechol Oxidation with Dinuclear Copper Complexes of Aliphatic Tripodal Amino Alcohols

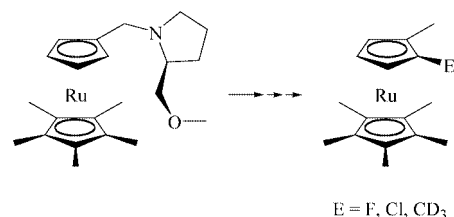
Keywords: Tripodal ligands / Amino alcohols / Copper / Catechol oxidase



4924 G. E. Herberich,* U. Englert, T. Wirth

Enantiopure Ruthenocenes $Cp^*Ru(1,2-C_5H_3-R^1R^2)$ with a Planar Chiral Cyclopentadienyl Ligand and a Pentamethylcyclopentadienyl Spectator Ligand

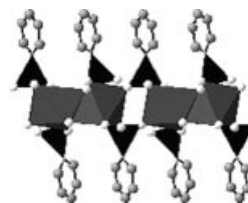
Keywords: Ruthenium / Ruthenocene / Sandwich complexes / Planar chirality / (*S*)-2-(methoxymethyl)pyrrolidine



4936 K. P. Rao, K. Vidyasagar*

Syntheses, Structure and Intercalation Properties of Low-Dimensional Phenylphosphonates, $A(\text{HO}_3\text{PC}_6\text{H}_5)(\text{H}_2\text{O}_3\text{PC}_6\text{H}_5)$ (A = Alkali Metal, NH_4 and Ti)

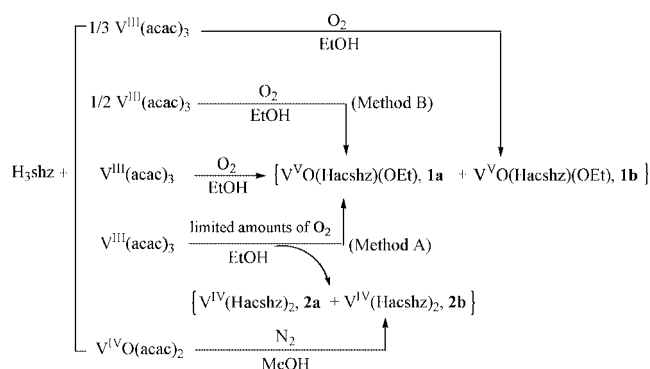
Keywords: Phenylphosphonates / Organic-inorganic hybrid composites / X-ray diffraction / Layered compounds / Intercalation



4944 Y. Jin, M. S. Lah*

Polymorphism Driven by π - π Stacking and van der Waals Interactions: Preparation and Characterization of Polymorphic Vanadium Crystals of $[\text{V}^{\text{VO}}(\text{Hacshz})(\text{OEt})]$ and $[\text{V}^{\text{IV}}(\text{Hacshz})_2]$

Keywords: Crystal engineering / π interactions / Polymorphism / Supramolecular chemistry / Vanadium

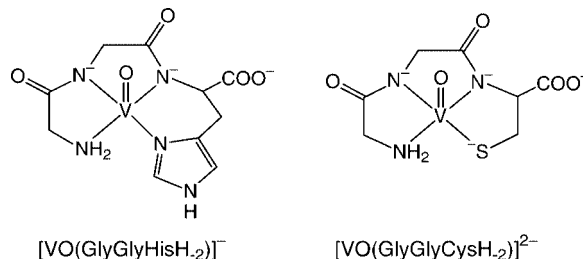


4953 E. Garribba,* G. Micera,*
E. Lodyga-Chruscinska, D. Sanna, G. Sanna



Binding of Oxovanadium(IV) to Tripeptides Containing Histidine and Cysteine Residues and Its Biological Implication in the Transport of Vanadium and Insulin-Mimetic Compounds

Keywords: Bioinorganic chemistry / Coordination modes / EPR spectroscopy / Peptides / Vanadium

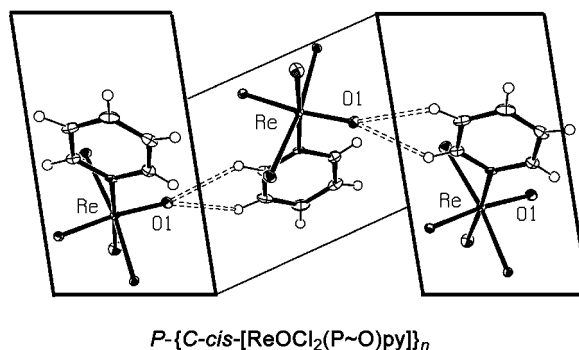


4964 W. K. Rybak,* A. Skarżyńska,
L. Szterenber, Z. Ciunik, T. Głowiak



Oxo-Entity-Controlled Diastereomer Peculiarity of Rhenium(V) Complexes $\text{ReOX}_2(\text{P}\sim\text{O})\text{py}$ [$X = \text{Cl, Br, I}$; $\text{P}\sim\text{O} = (\text{OCMe}_2\text{CMe}_2\text{O})\text{POCMe}_2\text{CMe}_2\text{O}(1-)$; $\text{py} = \text{pyridine}$]: Synthesis and Molecular and Crystal Structural Characterization

Keywords: Noncovalent interactions / Crystal engineering / Rhenium complexes / P,O ligand / Density functional calculations

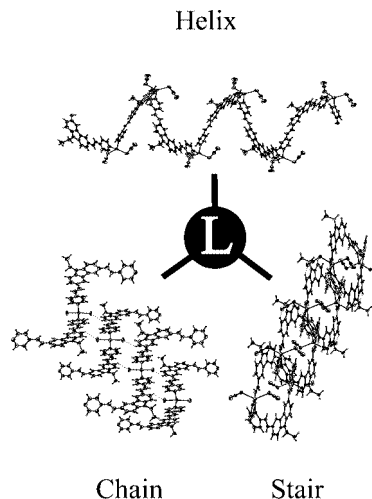


4976

H.-P. Zhou, Y.-P. Tian,* J.-Y. Wu,
J.-Z. Zhang, D.-M. Li, Y.-M. Zhu,
Z.-J. Hu, X.-T. Tao, M.-H. Jiang, Y. Xie*

Synthesis, Crystal Structures and Photoluminescence of Mercury(II) Complexes with Two Homologous Novel Functional Rigid Ligands

Keywords: Mercury / Functional rigid ligands / X-ray diffraction / Luminescence

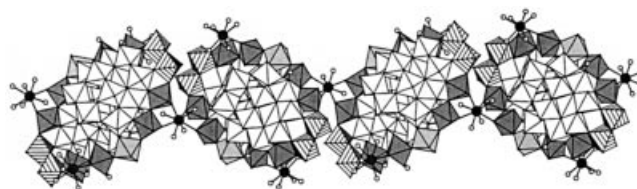


4985

N. V. Izarova, M. N. Sokolov,
D. G. Samsonenko, A. Rothenberger,
D. Y. Naumov, D. Fenske, V. P. Fedin*

One-, Two-, and Three-Dimensional Coordination Polymers Built from Large Mo_{36} -Polyoxometalate Anionic Units and Lanthanide Cations

Keywords: Coordination polymers / Lanthanides / Molybdenum / Polyoxometalates

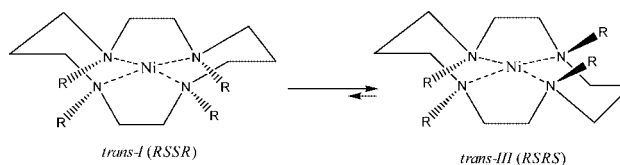


4997

E. Maimon,* I. Zilbermann, H. Cohen,
D. Kost, R. van Eldik, D. Meyerstein*

Mechanism of Isomerization of $\text{Ni}(\text{cyclam})$ in Aqueous Solutions

Keywords: Isomerization / Cyclam / Nickel complexes / Oxidation states

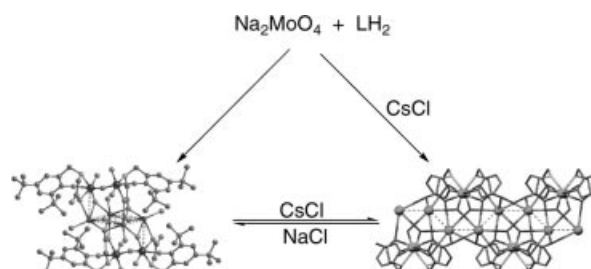


5005

S. Khatua, S. Dasgupta, K. Biradha,*
M. Bhattacharjee*

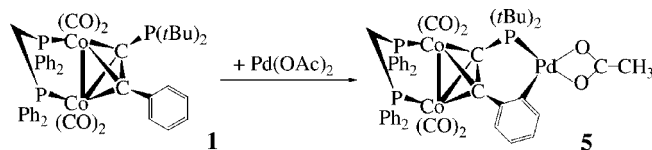
Self-Assembly of an Alkali Metal Cluster Stabilized by a New Flexidentate Metalloligand: Formation and Structure of Heterobimetallic Na–Mo and Cs–Mo 2D Networks

Keywords: Alkali metals / Heterometallic complexes / Metalloligands / Molybdenum / Self-assembly



5011 J.-C. Lee, M.-G. Wang, F.-E. Hong*

Palladium-Catalysed Amination Reactions Using Cobalt-Containing Bulky Phosphane Ligands

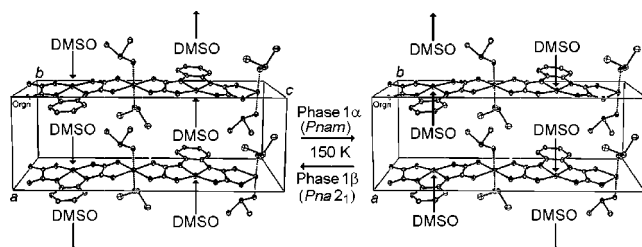


Keywords: Amination / Palladium / Cobalt complexes / Phosphane ligands / Orthometallation

5018 C. L. M. Pereira, A. C. Doriguetto, C. Konzen, L. C. Meira-Belo, U. A. Leitão, N. G. Fernandes, Y. P. Mascarenhas, J. Ellena, A. L. Brandl, M. Knobel, H. O. Stumpf*



A Crystalline Phase Transition and Optical Properties in a Co^{II}Cu^{II} Oxamato-Bridged Ferromagnetic Chain

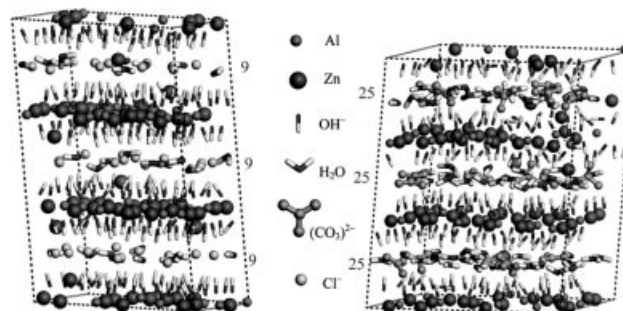


Keywords: Birefringence / Chain structures / Molecular magnetism / Phase transitions / Transition metals

5026 G. M. Lombardo, G. C. Pappalardo,* F. Punzo, F. Costantino, U. Costantino, M. Sisani

A Novel Integrated X-ray Powder Diffraction (XRPD) and Molecular Dynamics (MD) Approach for Modelling Mixed-Metal (Zn, Al) Layered Double Hydroxides (LDHs)

Keywords: Layered double hydroxides / Molecular dynamics / X-ray diffraction / Structure elucidation



CORRECTION

5035 H. Yin,* M. Hong, H. Xu, Z. Gao, G. Li, D. Wang

Self-Assembly of Organotin(IV) Moieties with the Schiff-Base Ligands Pyruvic Acid Isonicotinyl Hydrazone and Pyruvic Acid Salicylhydrazone: Synthesis, Characterization, and Crystal Structures of Monomeric or Polymeric Complexes

Keywords: N,O ligands / Self-assembly / Schiff bases / Tin

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