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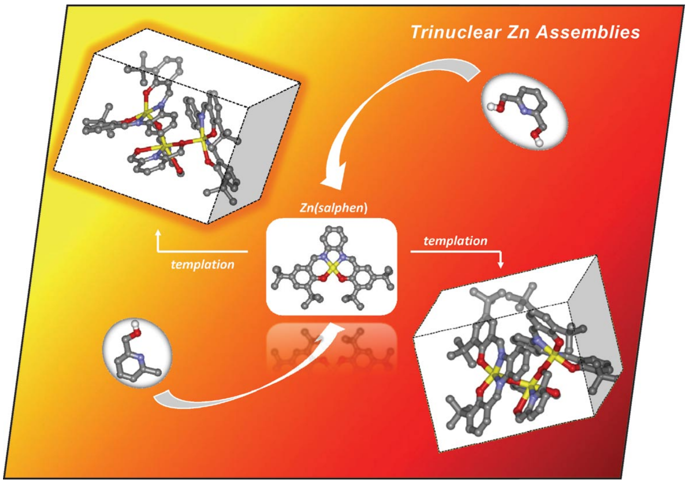
A union formed by chemical societies in Europe (ChemPubSoc Europe) has taken the significant step into the future by merging their traditional journals, to form two leading chemistry journals, the *European Journal of Inorganic Chemistry* and the *European Journal of Organic Chemistry*. Three further members of ChemPubSoc Europe (Austria, Czech Republic and Sweden) are Associates of the two journals.

COVER PICTURE

The cover picture shows a schematic view of the templated process that is mediated by Zn(salphen) complexes in the presence of pyridine-alcohol ligands. The products of the templated reactions are unusual trinuclear Zn_3 assemblies that comprise a central, nonsymmetrical Zn complex of which the anionic O-donor atoms coordinate to two Zn(salphen) units. Full details on the stability and structural features of a small library of these supramolecular systems are discussed in the article by A. W. Kleij et al. on p. 5307ff.



CONTENTS

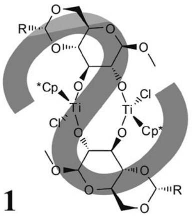
SHORT COMMUNICATIONS

Titanium Complexes

D. Schwidom, D. Zeysing, M. Schmidt, J. Heck* **5295–5298**

Structural Consequences in α- and β-Glucopyranosidato Complexes of Cp^*TiCl_3

Keywords: Titanium / Dinuclear complexes / Carbohydrates / Stereochemistry / Configuration determination



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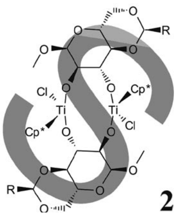


2

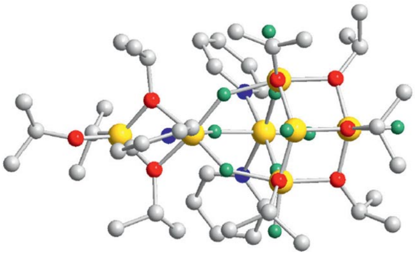
The change of the configuration at only one carbon atom of the monosaccharide ligand induces a change of the absolute configuration of the metal centre of the corresponding titanium complexes. The configurational change is easily seen by a projection of the molecular structure along the molecular C_2 axis: The "*S*" shape of **1** changes into an overall inverse "*S*" shape of **2**.

Sol–Gel Synthesis

A. Dimitrov, J. Koch, S. I. Troyanov, E. Kemnitz* **5299–5301**

Aluminum Alkoxide Fluorides Involved in the Sol–Gel Synthesis of Nanoscopic AlF_3

Keywords: Aluminum / Sol–gel processes / Structure elucidation / Fluorine



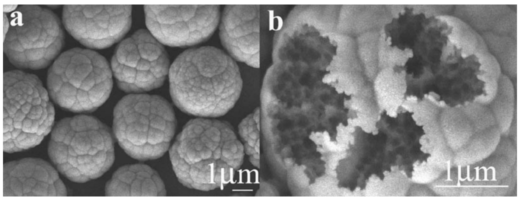
Three aluminum alkoxide fluorides as intermediates of the fluorolysis of aluminum isopropoxide with HF in pyridine have been isolated and structurally characterized [see structure of $Al_7F_{10}(\mu_4\text{-}O)(O\text{-}Pr)_9(Py)_3$; yellow Al, green F, red O, blue N, gray C]. These compounds represent possible snapshots in the consecutive *fluorolytic* sol–gel formation of nanoscopic AlF_3.

Hierarchical Microspheres

J. Pan, S. L. Xiong, B. J. Xi, J. F. Li, J. Y. Li, H. Y. Zhou, Y. T. Qian* **5302–5306**

Tartatric Acid and L-Cysteine Synergistic-Assisted Synthesis of Antimony Trisulfide Hierarchical Structures in Aqueous Solution

Keywords: Hierarchical structures / Hydrothermal synthesis / Antimony / Amino acids / Chalcogens



Hierarchical Sb_2S_3 microspheres with alveolate-like structures were successfully prepared through a hydrothermal method without the use of a surfactant in aqueous solution. Results reveal that L-cysteine and tartatric acid play a key role in the morphology of the Sb_2S_3 products.

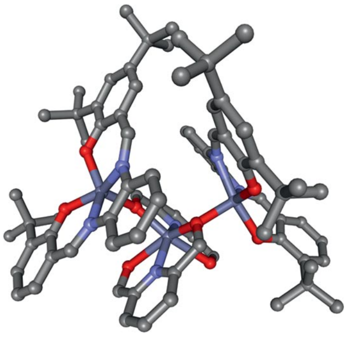
FULL PAPERS

Trinuclear Assemblies

M. Martínez Belmonte, E. C. Escudero-Adán, J. Benet-Buchholz, A. W. Kleij* **5307–5318**

Formation of Unusual Trinuclear Assemblies: Scope and Mechanism of Zn(salphen)-Templated Activation of Pyridine-Alcohol Substrates

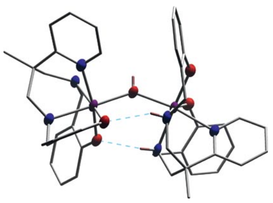
Keywords: Self-assembly / Salen / Supramolecular chemistry / Template effect / Zinc



The Zn(salphen)-templated synthesis and solution and solid-phase analysis of a series of unusual trinuclear supramolecular assemblies is reported. Under suitable conditions, a non-symmetrical Zn complex comprising two monoanionic pyridine-alcohol ligands is formed, which combines with two Zn(salphen) units to provide the Zn_3 structures (see figure). The scope and mechanism of formation related to this templated process have been investigated.

Iron Coordination Chemistry

Unsupported hydroxo- and oxo-bridged diiron(III) complexes, and monomeric iron(III) complexes were synthesized with with pyridylbis(aminophenol) ligands. The oxo-bridged diiron(III) complex could be protonated to generate its hydroxo-bridged analog, but the hydroxo-bridged dimer could not be deprotonated to generate its oxo-bridged dimer.



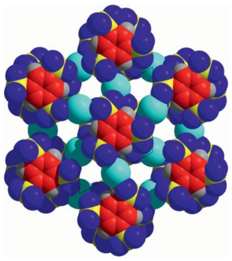
R. Shakya, D. R. Powell,
R. P. Houser* 5319–5327

Unsupported μ-Oxo- and μ-Hydroxo-Iron(III) Dimers and Mononuclear Iron(III) Complexes with Pyridylbis(aminophenol) Ligands

Keywords: Iron / N,O ligands / Bridging ligands / Bioinorganic chemistry

Stable Metal-Organic Frameworks

Acidity brings stability: Thermal stability of over 400 °C is achieved for metal-organic frameworks, if copper(II) is linked by 1,4-benzenedisulfonate or 1,3,5-benzenetrisulfonate. The respective sulfonic acids with appropriate substitution pattern are prepared in an efficient and scalable two-step protocol from bromobenzene derivatives.



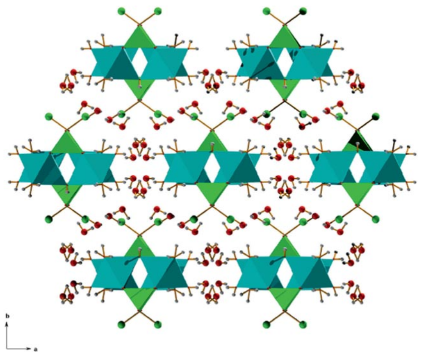
A. Mietrach, T. W. T. Muesmann,
J. Christoffers,*
M. S. Wickleder* 5328–5334

Sulfonic Acid Analogs of Terephthalic and Trimesic Acid as Linkers in Metal-Organic Frameworks – Synthesis of Thermally Robust MOFs

Keywords: Aromatic substitution / Copper / Metal-organic frameworks / Sulfonic acids / Thermal analysis

Hybrid Inorganic–Organic Networks

Isomorphous Ni and Zn complexes of the dibenzoyl derivative of clodronic acid, **1** and **2**, and the isostructural corresponding complexes of clodronic acid, **3** and **4**, were prepared and characterized. The coordination polymers **1** and **2** form, through intermolecular hydrogen bonds, dense 2D structures, whereas the monomeric compounds **3** and **4** form a 3D hydrogen-bonded network with solvent-accessible voids.



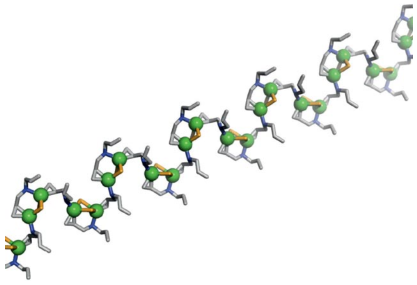
S. Kunnas-Hiltunen,* M. Haukka,
J. Vepsäläinen, M. Ahlgrén 5335–5345

Syntheses, X-ray Diffraction Study and Characterisations of Ni and Zn Complexes of Clodronic Acid and Its Dibenzoyl Derivative

Keywords: Bis(phosphonate) / Clodronic dianhydrides / Nickel / Zinc / X-ray diffraction

Metal Carbamates

The synthesis of the *N*,*N*-diallylcarbamato complex $Cu(O_2CNAllyl_2)_2$ led to the formation of a polymeric Cu^I complex $[Cu^I_4Cl_4(NHAllyl_2)_4]_n$. Surprisingly, the reduction of Cu^{II} to Cu^I is coupled to the oxidation of diallylamine to 3,4-dimethylpyrrole.



A. Albinati, M. L. Carraro, S. Gross,*
A. Rancan, S. Rizzato, E. Tondello,
A. Venzo 5346–5351

Synthesis and Characterisation of a New $Cu(O_2CNAllyl_2)_2$ Carbamato Complex and an Unusual Polymeric Cu^I Complex $[Cu^I_4Cl_4(NHAllyl_2)_4]_n$: New Insights into Metal Carbamato Chemistry

Keywords: Copper / Chain structures / X-ray diffraction / Coordination polymers / Redox chemistry

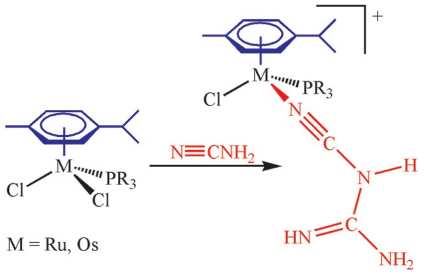
CONTENTS

Metal–Cyanoguanidine Complexes

G. Albertin,* S. Antoniutti, J. Castro **5352–5357**

Preparation of Cyanoguanidine and Ethylcyanamide Complexes of Ruthenium(II) and Osmium(II)

Keywords: Cyanamides / Ruthenium / Osmium / P ligands / N ligands



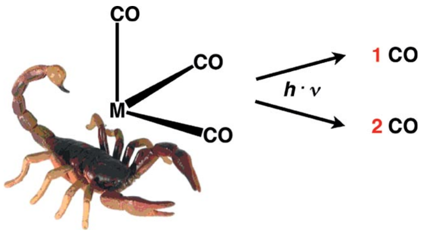
The preparation of cyanoguanidine and diethylcyanamide complexes of ruthenium and osmium, stabilised by the *p*-cymene fragment [MCl(η^6-*p*-cymene)(PR$_3$)], is described. The spectroscopic and crystallographic characterisation of these complexes is also discussed.

CO-Releasing Molecules

P. C. Kunz*, W. Huber, A. Rojas, U. Schatzschneider, B. Spingler **5358–5366**

Tricarbonylmanganese(I) and –rhenium(I) Complexes of Imidazol-Based Phosphane Ligands: Influence of the Substitution Pattern on the CO Release Properties

Keywords: Manganese / Rhenium / CO-releasing molecules / N ligands / Tripodal ligands



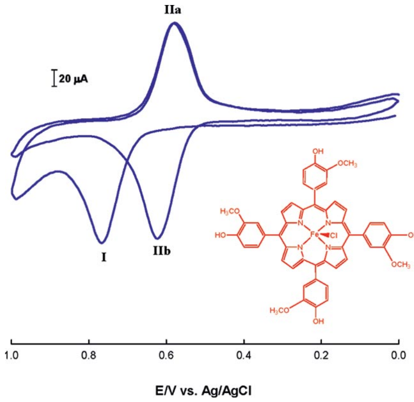
Mn^{I}- and Re^{I}(CO)$_3$ complexes of imidazolyl-based phosphane ligands were prepared. The Mn(CO)$_3$ complexes were studied as CO-releasing molecules (CORMs). Within the series of compounds prepared, the substitution pattern of the imidazolyl groups was found to significantly influence the CO release efficiency and stoichiometry.

Electrocatalysis

G. Richards, S. Swavey* **5367–5376**

Electrooxidation of Fe, Co, Ni and Cu Metalloporphyrins on Edge-Plane Pyrolytic Graphite Electrodes and Their Electrocatalytic Ability towards the Reduction of Molecular Oxygen in Acidic Media

Keywords: Metalloporphyrin / Electrocatalysis / Electrooxidation / Electrochemistry / Oxygen / Reduction / Oxidation



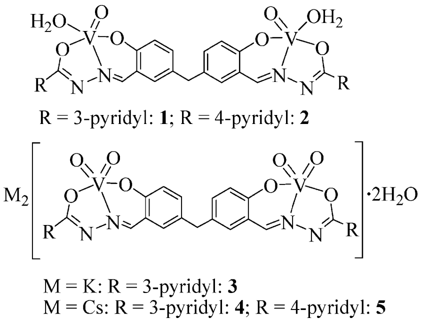
Electrooxidation of Fe^{III}, Co^{II}, Ni^{II} and Cu^{II} porphyrins onto graphite electrodes creates an electroactive surface capable of catalyzing the reduction of oxygen in acidic media.

Dinuclear Oxidovanadium Complexes

M. R. Maurya,* A. A. Khan, A. Azam, A. Kumar, S. Ranjan, N. Mondal, J. C. Pessoa* **5377–5390**

Dinuclear Oxidovanadium(IV) and Dioxidovanadium(V) Complexes of 5,5′-Methylenebis(dibasic tridentate) Ligands: Synthesis, Spectral Characterisation, Reactivity, and Catalytic and Antiamoebic Activities

Keywords: Vanadium / EPR spectroscopy / NMR spectroscopy / Catalytic activity / Antiamoebic activity



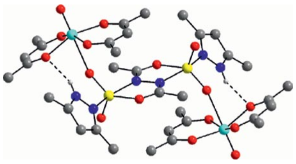
R = 3-pyridyl: **1**; R = 4-pyridyl: **2**

M = K: R = 3-pyridyl: **3**
M = Cs: R = 3-pyridyl: **4**; R = 4-pyridyl: **5**

Dinuclear V^{IV}O (**1** and **2**) and V^{V}O$_2$ (**3**, **4** and **5**) complexes of CH$_2$(H$_2$sal-nah)$_2$ (**I**) and CH$_2$(H$_2$sal-inh)$_2$ (**II**) have been synthesised, and their catalytic activities have been studied. Dioxidovanadium(V) complexes have also been screened against HM1:1MSS strains of *Entamoeba histolytica*.

Mixed-Valent Vanadium Complexes

Divanadium(V) complexes, [(hc)O_2V(μ-diah)VO_2(hc)] {hc, N-coordinating neutral heterocycles and H_2diah, *N*,*N*′-bis(diacetyl)hydrazine}, and linear tetravanadium(IV,V,V,IV) complexes, [(acac)$_2$OV(μ-O)VO(hc)(μ-diah)(hc)OV(μ-O)VO(acac)$_2$] (acac, acetylacetonate), are described. The mixed-valence fragments in the tetravanadium species are unsymmetrical and they have a valence localized electronic structure.



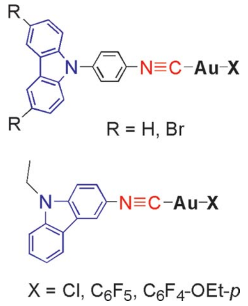
A. Sarkar, S. Pal* 5391–5398

Divanadium(V) and Trapped Valence Linear Tetravanadium(IV,V,V,IV) Complexes

Keywords: Vanadium / Mixed-valent compounds / EPR spectroscopy / Redox chemistry / Localized valence

Isocyanocarbazole Complexes

Gold(I) complexes with isocyanocarbazole ligands were prepared. The gold complexes display a redshift in the emissions relative to that of the free ligand. The presence of electron-withdrawing substituents in 3,6-dibromo-9-(4-isocyanophenyl)carbazole quenches the luminescence, but with the introduction of a gold atom some luminescence is recovered.

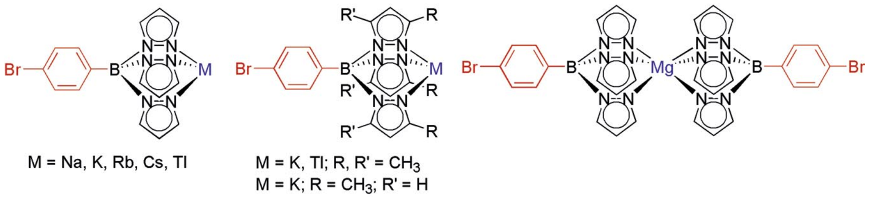


R. Benavente, P. Espinet,* S. Lentijo,
J. M. Martín-Álvarez, J. A. Miguel,*
M. Paz Rodríguez-Medina 5399–5406

Synthesis and Characterization of Gold(I) Complexes with 9-(4-Isocyanophenyl)carbazole or 9-Ethyl-3-isocyanocarbazole Ligands

Keywords: Gold / Nitrogen heterocycles / Isocyanide ligands / Luminescence

Tris(pyrazolyl)borate Ligands



A series of "third-generation" tris(pyrazolyl)borate (Tp) transfer agents *p*-BrC_6H_4-TpM (M = Na, K, Rb, Cs, Tl), *p*-BrC_6H_4-Tp*Tl, (*p*-BrC_6H_4Tp)$_2$Mg, *p*-BrC_6H_4-Tp^{Me}K and *p*-BrC_6H_4Tp*K was synthesized and characterized. Monovalent *p*-BrC_6H_4Tp*Tl and the magnesium-sandwich compound (*p*-BrC_6H_4Tp)$_2$Mg were structurally characterized in the solid state by X-ray diffraction.

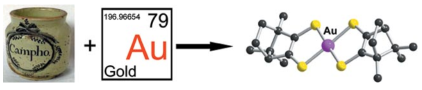
J. Zagermann, M. C. Kuchta, K. Merz,
N. Metzler-Nolte* 5407–5412

para-Bromophenyl[tris(pyrazolyl)]borate Complexes of Group 1 Metals, Thallium and Magnesium: Synthesis and Characterization of Transfer Agents for "Third-Generation" Tp Ligands

Keywords: Ligand-transfer reagents / N ligands / Sandwich complexes / Tripodal ligands / Tris(pyrazolyl)borates

Chiral Dithiolene Complexes

Camphor and gold combined into paramagnetic and chiral dithiolene complexes: From camphorquinone, the electron-rich D- or DL-bornylenedithiolato ligands afford the enantiopure [(D-bordt)$_2$Au]· or diastereomeric [(DL-bordt)$_2$Au]· radical complexes as highly soluble paramagnetic crystalline materials.



R. Perochon, C. Poriel, O. Jeannin,
L. Piekara-Sady,
M. Fourmigué* 5413–5421

Chiral, Neutral, and Paramagnetic Gold Dithiolene Complexes Derived from Camphorquinone

Keywords: Chirality / S ligands / Gold / Structure elucidation / Magnetic properties

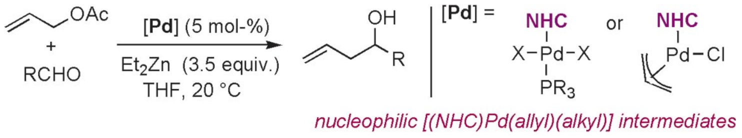
CONTENTS

Pd-Catalyzed Allylation

A. Flahaut, K. Toutah, P. Mangeney, S. Roland* **5422–5432**

Diethylzinc-Mediated Allylation of Carbonyl Compounds Catalyzed by [(NHC)(PR$_3$)PdX$_2$] and [(NHC)Pd(η^3-allyl)Cl] Complexes

Keywords: Allylation / Carbene ligands / Palladium / Reaction mechanisms



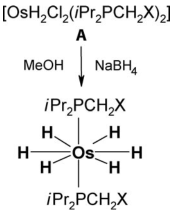
[(NHC)(PR$_3$)PdX$_2$] complexes are active precatalysts in the Pd-catalyzed allylation of carbonyl compounds with allylic acetates and diethylzinc. The scope of the reaction was investigated with various carbonyl compounds and allylic acetates. An experimental study concerning the mechanism of the reaction was carried out with [(NHC)Pd(η^3-allyl)Cl] complexes.

(Hydrido)osmium Complexes

B. Richter, H. Werner* **5433–5438**

Hydrido-Osmium(II), -Osmium(IV) and -Osmium(VI) Complexes with Functionalized Phosphanes as Ligands

Keywords: Dioxygen ligands / Hydrido complexes / Hydrogen transfer / Osmium / Phosphane ligands



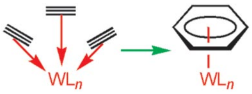
Hexahydrido-Os(VI) phosphane complexes can be prepared from Os(IV) precursors of type **A** and were shown to rapidly react with O$_2$ and primary alcohols. Their catalytic hydrogen transfer activity was briefly investigated.

Alkyne Cyclotrimerization on W

B. Peng, Q.-S. Li,* Y. Xie, R. B. King,* H. F. Schaefer III **5439–5448**

Inhibition of Alkyne Cyclotrimerization to Arenes on a Metal Site by Four-Electron Donation through Simultaneous Sigma and Pi Bonding: The Tris(alkyne)Tungsten Carbonyls

Keywords: Cyclotrimerization / Density functional calculations / Tungsten / Isomerization / Alkyne ligands



The isomerizations of (RC≡CR)$_3$W(CO)$_n$ (n = 3, 2) to (η^6-C$_6$R$_6$)W(CO)$_n$ are predicted by density functional theory to be very exothermic. However, the isomerizations of (RC≡CR)$_3$W(CO) and (RC≡CR)$_3$W to (η^6-C$_6$R$_6$)W(CO) and (η^6-C$_6$R$_6$)W, respectively, are predicted to be nearly thermoneutral (R = CH$_3$) to highly endothermic (R = CF$_3$).

RETRACTION

O. Horner,* J.-L. Oddou, C. Jeandey, I. Michaud-Soret, J.-M. Mouesca **5449**

Retraction: Detailed Moessbauer Characterization of Fe^{2+}Fur, the Active Form of the Ferric Uptake Regulation Protein from *E. coli* and Density Functional Calculations on Some Related Models

Keywords: Moessbauer spectroscopy / Density functional calculations / Iron / Bioinorganic chemistry / Protein models

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* Author to whom correspondence should be addressed.

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