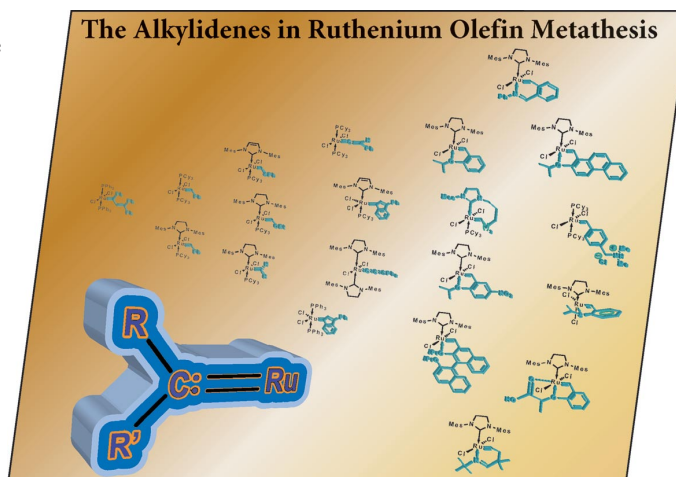


A union formed by chemical societies in Europe (ChemPubSoc Europe) has taken the significant step into the future by merging their traditional journals, to form two leading chemistry journals, the *European Journal of Inorganic Chemistry* and the *European Journal of Organic Chemistry*. Three further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

COVER PICTURE

The cover picture shows the development of the ruthenium alkylidene moiety from the first well-defined ruthenium vinylalkylidene disclosed by Grubbs, through the first simple benzylidenes, alkylidenes, Fischer carbenes, vinylidenes, allenylidenes and indenylidenes, up to the functional chelated alkylidenes. Indeed, the development of this fragment has had a vital impact on the ruthenium-catalyzed olefin metathesis reaction. Details are presented in the Microreview by N. G. Lemcoff et al. on p. 4185ff. The authors gratefully acknowledge the Edmond J. Safra Foundation for their financial support.



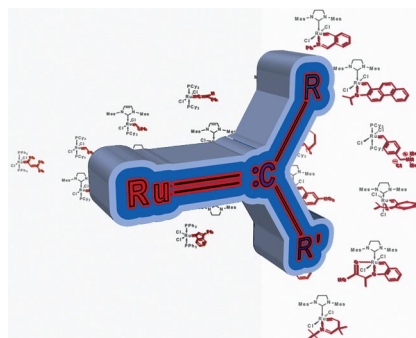
MICROREVIEW

Olefin Metathesis

C. E. Diesendruck, E. Tzur,
N. G. Lemcoff* 4185–4203

The Versatile Alkylidene Moiety in Ruthenium Olefin Metathesis Catalysts

Keywords: Carbene ligands / Ruthenium / Metathesis / Homogeneous catalysis / Ligand effects



The alkylidene fragment has played a key role in ruthenium olefin metathesis. This microreview details the evolution of the active carbene fragment

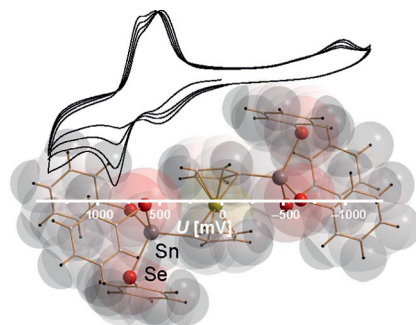
SHORT COMMUNICATIONS

Organoditin Compounds

H. P. Nayek, G. Hilt,
S. Dehnen* 4205–4208

Synthesis, Structure and Electrochemical Properties of a Ferrocene-Bridged Bis[tris(arylselenolato)stannyl] Compound

Keywords: Ferrocene / Selenium / Tin / X-ray diffraction / Cyclic voltammetry / DFT calculations



Reactions of $(\text{Cl}_3\text{Sn})_2\text{Fc}$ with R_2Se_2 [$\text{R} = \text{Ph}$ (**1**; see figure), 1-Np (**2**)], yielded ferrocene-bridged bis[tris(arylselenolato)stannyl] compounds that were further investigated by means of DFT calculations and cyclic voltammetry. Compounds **1** and **2** are promising candidates for the synthesis of ternary chalcogenometallate organic hybrid compounds.

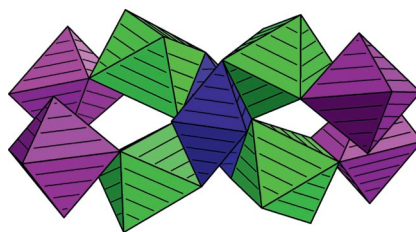
Twisted Manganese Clusters

I. L. Malaestean, M. Speldrich, A. Ellern,
S. G. Baca, M. Ward,
P. Kögerler* 4209–4212



Decanuclear Manganese Isobutyrate Clusters Featuring a Novel $\text{Mn}^{\text{II}}_8\text{Mn}^{\text{III}}_2$ Core

Keywords: Manganese / Carboxylates / Coordination clusters / Molecular magnetism / N ligands



“Shrink-wrapping” isobutyrate ligands are the key to the formation of new decanuclear $\text{Mn}^{\text{II}}_8\text{Mn}^{\text{III}}_2$ coordination clusters.

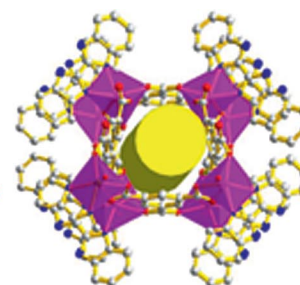
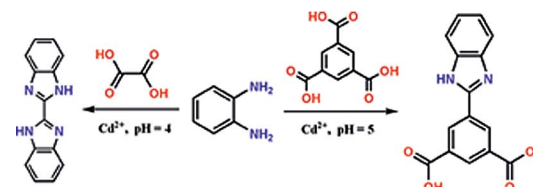
Photoluminescent Nanotubes

W.-T. Liu, Y.-C. Ou, Y.-L. Xie, Z. Lin,
M.-L. Tong* 4213–4218



Photoluminescent Metal-Organic Nanotubes via Hydrothermal in Situ Ligand Reactions

Keywords: Nanotechnology / Nanotubes / Luminescence / Photoluminescence / Cadmium

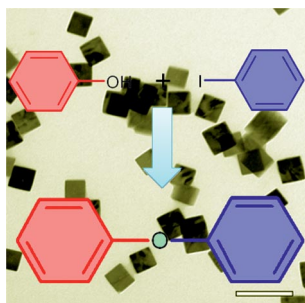


Three photoluminescent Cd^{II} coordination polymers with 1D metal-organic nanotube or 1D coordination chain structure were synthesized by hydrothermal reactions of CdCl_2 , oxalic acid, 1,3,5-benzenetricarboxylic acid and *o*-phenylene diamine, from which the benzimidazole derivative ligands were generated in situ via hydrothermal metal/ligand condensation of polycarboxylic acid with *o*-phenylenediamine.

Three photoluminescent Cd^{II} coordination polymers with 1D metal-organic nanotube or 1D coordination chain structure were synthesized by hydrothermal reactions of CdCl_2 , oxalic acid, 1,3,5-benzenetricarboxylic acid and *o*-phenylene diamine, from which the benzimidazole derivative ligands were generated in situ via hydrothermal metal/ligand condensation of polycarboxylic acid with *o*-phenylenediamine.

Copper Oxide Nanocubes as Catalyst

An efficient cross-coupling reaction of aryl halides and phenol with 0.1 mol-% Cu₂O nanocubes as recyclable catalyst and Cs₂CO₃ as the base in THF at 150 °C is reported. The process is simple and allows the formation of a diverse range of diaryl ethers in excellent yields.



J. Y. Kim, J. C. Park, A. Kim, A. Y. Kim,
H. J. Lee, H. Song,*
K. H. Park* 4219–4223

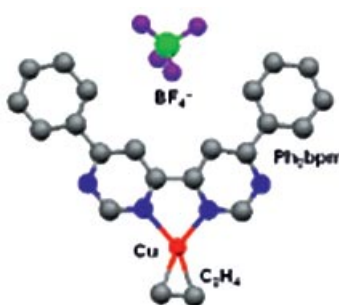
Cu₂O Nanocube-Catalyzed Cross-Coupling of Aryl Halides with Phenols via Ullmann Coupling



Keywords: Copper / Nanoparticles / Homogeneous catalysis / Cross-coupling / Diaryl ethers

FULL PAPERS

Four novel Cu^I–C₂H₄ adducts [Cu(Ph₂bpm)(C₂H₄)]X (X = BF₄[–], ClO₄[–] and PF₆[–]; Ph₂bpm = 6,6′-diphenyl-4,4′-bipyrimidine) were three-dimensionally self-assembled by an intermolecular π–π stacking interaction and a C–H···N contact.



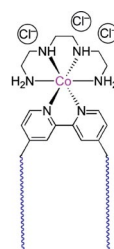
M. Maekawa,* T. Tominaga, T. Okubo,
T. Kuroda-Sowa,
M. Munakata 4225–4231

Novel Cu^I Ethylene Complexes with 6,6′-Diphenyl-4,4′-bipyrimidine Three-Dimensionally Self-Assembled by an Intermolecular π–π Stacking Interaction and a C–H···N Contact

Keywords: Copper(I) complexes / Ethylene adducts / N ligands / Nitrogen heterocycles / Polymers / Stacking interactions

Metallosurfactant

Surfactant complexes of cobalt(III) are described, consisting of a tetradentate tetraamine and a long-chain bipyridine. Critical micelle concentrations and lyotropic liquid-crystal phase behavior are described.



M. J. Danks, M. E. Light,
D. W. Bruce* 4232–4239

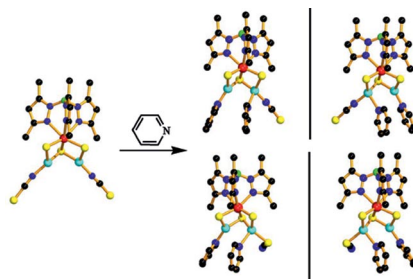
The Preparation, Solution and Mesophase Behaviour of Surfactant Complexes of Cobalt(III)



Keywords: Mesophases / Surfactants / Metallosurfactants / Micelles / Liquid crystals / Synthetic methods

Cluster-Based Assemblies

Reactions of the butterfly-shaped cluster [Et₄N][Tp*W(μ₃-S)(μ-S)₂(CuSCN)₂] with py, 4,4′-bipy, and bpp yielded three neutral compounds [Tp*W(μ₃-S)(μ-S)₂Cu₂(SCN)(py)₂], [{Tp*W(μ₃-S)(μ-S)₂Cu₂(SCN)}₂-(4,4′-bipy)]·3.5H₂O, and [Tp*W(μ₃-S)(μ-S)₂Cu₂(SCN)(bpp)]₂. These compounds were fully characterized. The DMF solutions of these compounds exhibit good third-order nonlinear optical performances.



Z.-H. Wei, L.-L. Li, Z.-G. Ren, H.-X. Li,
J.-P. Lang,* Y. Zhang,
Z.-R. Sun* 4240–4247

Reactions of [Et₄N][Tp*W(μ₃-S)(μ-S)₂-(CuSCN)₂] with Nitrogen Donor Ligands: Syntheses, Structures, and Third-Order Nonlinear Optical Properties

Keywords: Tungsten / Copper / Cluster compounds / Sulfur / N ligands / Structure elucidation / Nonlinear optics

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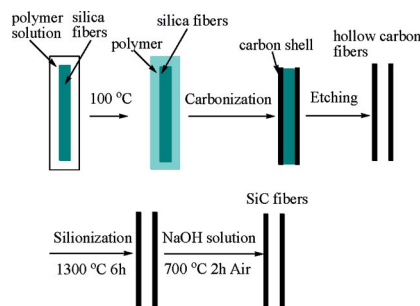
Carbon and SiC Fibers

Y. Cheng, J. Zhang, Y. Zhang, X. Chen,
Y. Wang, H. Ma, X. Cao* 4248–4254



Preparation of Hollow Carbon and Silicon Carbide Fibers with Different Cross-Sections by using Electrospun Fibers as Templates

Keywords: Nanostructures / Silicon / Carbides / Electrospinning / Template synthesis



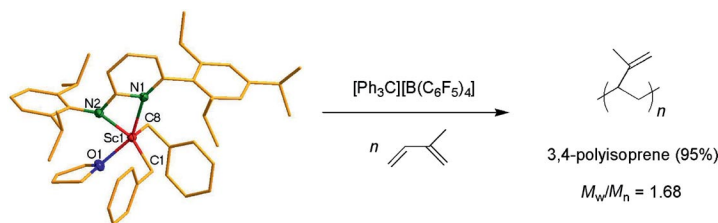
Carbon fibers with circular and rectangular cross-sections were synthesized by using electrospun silica fibers as templates and polystyrene as carbon sources. Silicon carbide fibers with circular and rectangular cross-sections could also be fabricated by using carbon fibers as templates.

Isoprene Polymerization

C. Döring, W. P. Kretschmer, T. Bauer,
R. Kempe* 4255–4264

Scandium Aminopyridinates: Synthesis, Structure and Isoprene Polymerization

Keywords: Isoprene / N ligands / Organocations / Polymerization / Scandium



Alkyl- and silylamido-scandium complexes stabilized by an aminopyridinato ligand were synthesized and investigated with regard to isoprene polymerization performance. The alkyl complexes can be used as

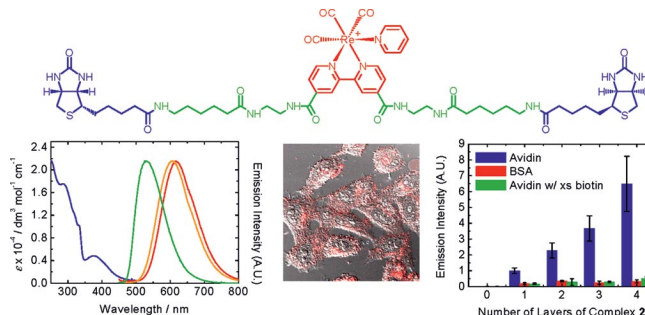
catalysts for the controlled 3,4-selective polymerization of isoprene. Drastic changes of the microstructure of the polyisoprene were observed when alkylaluminum compounds were added.

Luminescent Avidin Crosslinkers

M.-W. Louie, M. H.-C. Lam,
K. K.-W. Lo* 4265–4273

Luminescent Polypyridinerhenium(I) Bis-Biotin Complexes as Crosslinkers for Avidin

Keywords: Luminescence / Imaging agents / Sensors / Crosslinking / Rhenium / Cytotoxicity



We report the synthesis, photophysical behavior, cytotoxicity, and cellular-uptake properties of two luminescent polypyridinerhenium(I) bis-biotin complexes and their

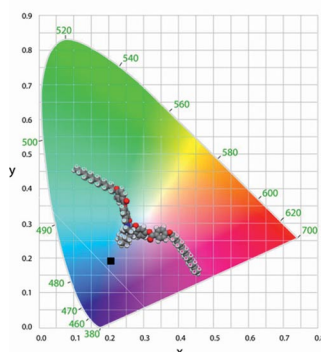
biotin-free counterpart. The avidin-binding and -crosslinking properties of the bis-biotin complexes have also been examined.

Metallomesogens

D. Pucci,* I. Aiello, A. Bellusci,
A. Crispini, M. Ghedini,
M. La Deda 4274–4281

Coordination Induction of Nonlinear Molecular Shape in Mesomorphic and Luminescent Zn^{II} Complexes Based on Salen-Like Frameworks

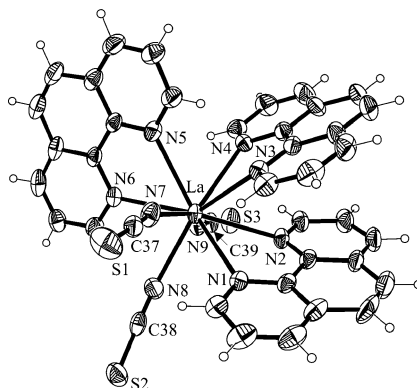
Keywords: Zinc / Schiff bases / Metallomesogens / Nonlinear shape / Intercalated smectic phase



The synthesis of nonlinear-core Zn^{II} complexes based on tetradentate Schiff bases and their mesomorphic and photophysical properties are reported.

Lanthanum Complex KP772

The antineoplastic lanthanum complex KP772 [tris(1,10-phenanthroline)tris(thiocyanato- κN)lanthanum(III)] was fully characterized, the crystal structure solved, the behavior in water studied and the binding to DNA model compounds and human serum proteins investigated.



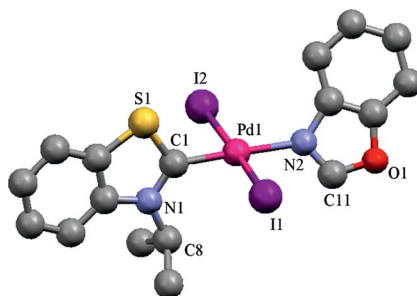
F. Biba, M. Groessl,* A. Egger, A. Roller,
C. G. Hartinger,
B. K. Keppler 4282–4287

New Insights into the Chemistry of the Antineoplastic Lanthanum Complex Tris(1,10-phenanthroline)tris(thiocyanato- κN)lanthanum(III) (KP772) and Its Interaction with Biomolecules

Keywords: Antitumor agents / Lanthanum / N ligands / Heterocycles

Heterocyclic Carbenes

A series of palladium(II) complexes stabilized by azole-based C- and N-donors has been crystallographically characterized and applied to benzylic coupling.

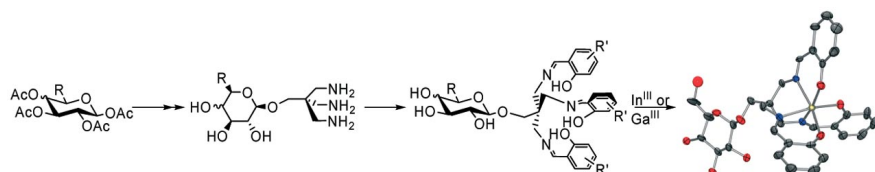


S. K. Yen, L. L. Koh, H. V. Huynh,
T. S. A. Hor* 4288–4297

Benzothiazolin-2-ylidene and Azole Mixed-Ligand Complexes of Palladium

Keywords: Palladium / N,S ligands / Nitrogen heterocycles / Cross-coupling / Carbene ligands

Gallium-68 Sugar Complexes



Sugar-substituted tripodal triamines were synthesised. Condensation to different salicylaldehydes resulted in the formation of tripodal trisalicylaldimines as versatile ligands for trivalent metal ions. The formation of In^{III} and Ga^{III} complexes was stud-

ied, and their structure could be assigned. Labelling of one of the ligands with ^{68}Ga was achieved in high radiochemical yield, and the complex displayed stability towards apo-transferin and blood plasma.

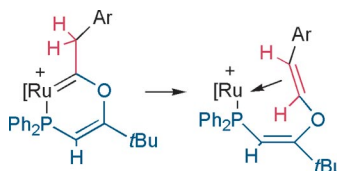
M. Gottschaldt,* C. Bohlender,
A. Pospiech, H. Görls, M. Walther,
D. Müller, I. Klette, R. P. Baum,
U. S. Schubert 4298–4307

In^{III} and Ga^{III} Complexes of Sugar-Substituted Tripodal Trisalicylidene Imines: The First ^{68}Ga -Labelled Sugar Derivative

Keywords: Carbohydrates / Gallium / Indium / Nuclear imaging / Isotopic labeling / Medicinal chemistry

1,2-Hydrogen Shift Migration

Isomerization of a Fischer-type carbene ligand into an η^2 -coordinated vinylic ether occurred under moderate thermal activation (dichloromethane at reflux) conditions.



B. Demerseman,* L. Toupet ... 4308–4313

Reactivity of $\{\text{Ru}(\text{C}_5\text{Me}_5)[\eta^2\text{-}P,\text{O}(\text{Ph}_2\text{P}-\text{CH}_2\text{C}(\text{tBu})=\text{O})](\text{CO})\}[\text{PF}_6]$ towards Terminal Alkynes and Unexpected Rearrangement of a Fischer-Type Carbene Ligand

Keywords: Carbene ligands / Cyclopentadienyl ligands / Metallacycles / Phosphane ligands / Ruthenium

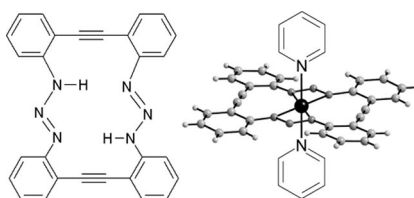
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Complexes of a Macrocyclic Ligand

J. Beck,* M. Hörner,*
G. Dittmann 4314–4319

A Macrocyclic Bistriazene and its Complexes with Divalent Metal Ions

Keywords: Triazenido complexes / Macrocyclic ligands / Nickel / Cobalt / Magnetic properties



Ring closure reaction of mono diazotized 2,2'-diaminoditolane gives rise to a macrocyclic bistriazene of planar molecular shape. After deprotonation the respective bis(tolanetriazendiide) is a suitable complexing ligand for divalent transition metals like Co^{2+} and Ni^{2+} . The rigidity of the molecular system retains the planarity in the complexes.

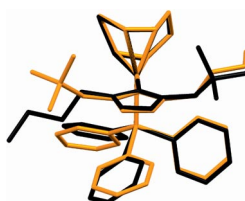
N-Heterocyclic Carbene Polymorphism

G. S. Nichol,* J. Rajaseelan, L. J. Anna,
E. Rajaseelan 4320–4328



N-Heterocyclic Carbene Complexes of Rhodium and Iridium: Steric Effects on Molecular Conformation

Keywords: Carbene ligands / Nitrogen heterocycles / Rhodium / Iridium / Polymorphism



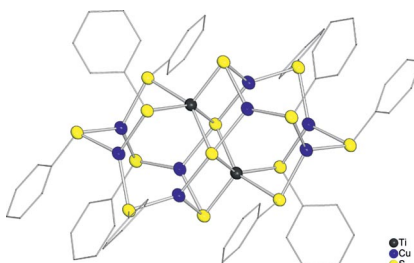
Synthesis and structural characterization of new N-heterocyclic carbene complexes of Rh and Ir are reported, including the first determination of polymorphism in this type of complex. Differences in wingtip substituent give different molecular conformations, rationalized in terms of steric crowding and attractive intramolecular forces.

Titanium/Coin Metal Cluster Complexes

H. Sommer, N. Drebov, A. Eichhöfer,
R. Ahlrichs,* D. Fenske* 4329–4334

Syntheses, Structures and Theoretical Investigations of $[\text{Li}(\text{thf})_4]_2[\text{Ti}_2\text{Cu}_8\text{S}_4(\text{SPh})_{10}]$ and $[\text{Ti}_2\text{Ag}_6\text{S}_6\text{Cl}_2(\text{PPh}_2\text{Pr}_2)_6]$

Keywords: Copper / Cluster compounds / Density functional calculations / Titanium / Sulfur



We describe syntheses, crystal structures and results of DFT treatments of the new titanium/coin metal chalcogenide cluster complexes $[\text{Li}(\text{thf})_4]_2[\text{Ti}_2\text{Cu}_8\text{S}_4(\text{SPh})_{10}]$ and $[\text{Ti}_2\text{Ag}_6\text{S}_6\text{Cl}_2(\text{PPh}_2\text{Pr}_2)_6]$.

* Author to whom correspondence should be addressed.

 Supporting information on the WWW (see article for access details).

If not otherwise indicated in the article, papers in issue 27 were published online on September 8, 2009