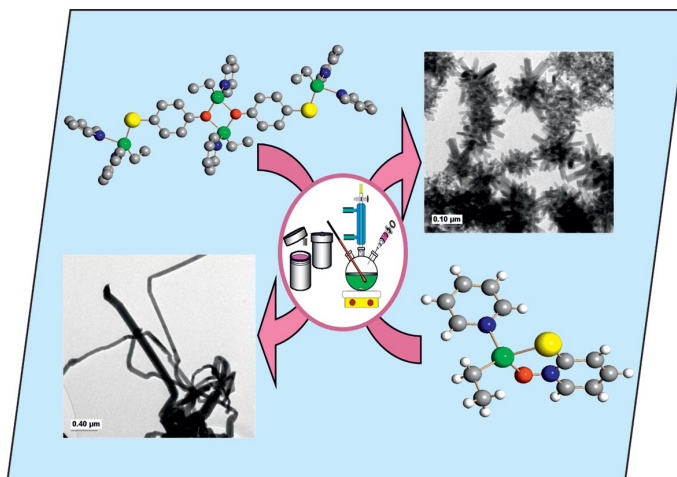


A union formed by chemical societies in Europe (ChemPubSoc Europe) has taken the significant step into the future by merging their traditional journals, to form two leading chemistry journals, the *European Journal of Inorganic Chemistry* and the *European Journal of Organic Chemistry*. Three further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

COVER PICTURE

The cover picture shows two novel single-source precursors $\{(\mu_4\text{-3MPA})[\text{Zn}(\text{Et})(\text{py})_4]_\infty\}$ (top left) and $(2\text{MPO})\text{Zn}(\text{Et})\text{py}$ (bottom right) used for the production of $\text{Zn}(\text{O}_x\text{S}_y)$ nanomaterials. The processing conditions, such as solution precipitation or solvothermal, led to the first solution route that successfully yielded Zn^0 nanowires or a mixed phase of ZnS and ZnO nanorods. Details are discussed in the article by T. J. Boyle et al. on p. 855ff.



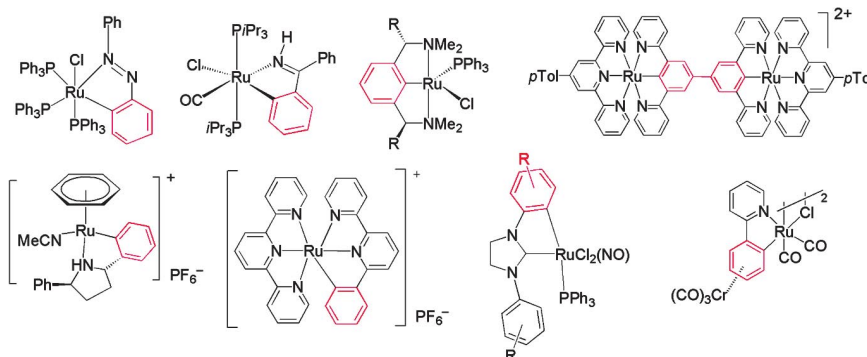
MICROREVIEW

Cycloruthenated Compounds

J.-P. Djukic, J.-B. Sortais, L. Barloy,
M. Pfeffer* 817–853

Cycloruthenated Compounds – Synthesis
and Applications

Keywords: Cyclometallation / Ruthenium /
Synthesis design / Reactivity / Catalyst pre-
cursors / Luminescence / Electrochemistry /
Biological properties



This review describes the synthesis and
some applications of cycloruthenated com-
pounds. Emphasis is placed on the C–H
activation protocol to obtain this important

class of organometallic species. Some of
them display interesting properties in vari-
ous domains such as catalysis, electrochem-
istry, photophysics and biology.

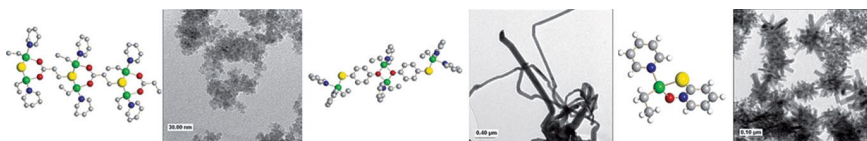
FULL PAPERS

Zn-Based Nanoparticles

T. J. Boyle,* H. D. Pratt III, T. M. Alam,
T. Headley, M. A. Rodriguez 855–865

Synthesis and Characterization of Thiol-
ate-Oxo Ligated Zinc Alkyl Derivatives for
Production of Zn-Based Nanoparticles

Keywords: O,S ligands / Zinc / Zincite /
Wurtzite / Ceramics / Nanomaterials



A series of mercapto-oxo containing zinc
(Zn, S, O, N, C) reagents was reacted to
form zincite nanoparticles (top), zinc

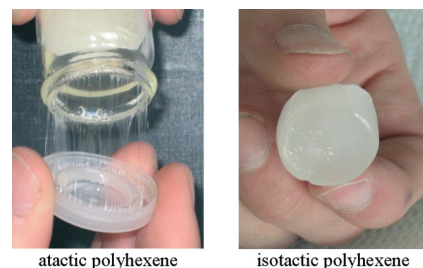
nanowires (middle), or mixed zincite/
wurtzite phases (bottom).

Sc-Catalyzed Olefin Polymerization

B. D. Ward, L. Lukešová, H. Wadeppohl,
S. Bellemin-Laponnaz,
L. H. Gade* 866–871

Scandium-Catalyzed Polymerization of
 $\text{CH}_3(\text{CH}_2)_n\text{CH}=\text{CH}_2$ ($n = 0-4$): Remark-
able Activity and Tacticity Control

Keywords: Scandium / Olefins / Polymeri-
zation / X-ray diffraction

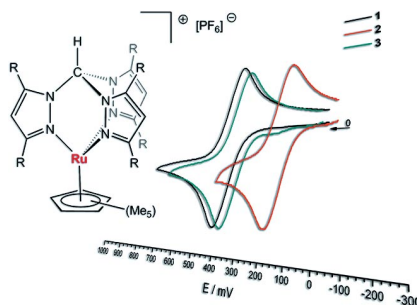


atactic polyhexene

isotactic polyhexene

Propene, 1-butene, 1-pentene, 1-hexene,
and 1-heptene are polymerized with high
activity and high levels of tacticity control
(up to 99% *mmmm*) by the C_3 -symmetric
trisoxazoline-supported scandium complex
[Sc(*i*Pr-trisox)(CH_2SiMe_3)₃] (**2**) when acti-
vated with two equivalents of $[\text{Ph}_3\text{C}]-$
[B(C_6F_5)₄].

A straightforward synthetic route to novel ruthenium(II) mixed-sandwich complexes containing tris(pyrazolyl)methane and cyclopentadienyl ligands is described. Detailed NMR investigations, molecular structures and the electrochemical properties of these complexes are also presented.



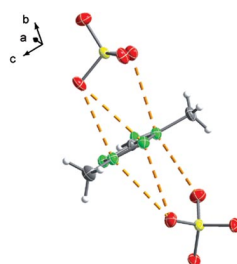
I. Kuzu, D. Nied, F. Breher* 872–879

Synthesis, Crystal Structures and Redox Properties of Mixed-Sandwich Complexes of Ruthenium(II) with Cyclopentadienyl and Tris(pyrazolyl)methane Ligands

Keywords: Ruthenium / Tripodal ligands / N ligands / Cyclopentadienyl ligands / Cyclic voltammetry

Nitrogen Heterocycles

Energetic salts based on 5-amino-2-methyl- and 5-amino-1,3-dimethyltetrazolium cations with energetic anions have been synthesized and characterized. Secondary interactions between the cation and anion explain their higher densities compared with 5-amino-1,4-dimethyltetrazolium salts, giving a new class of compounds with potential as new environmentally friendly, insensitive, high-performing ionic salts.



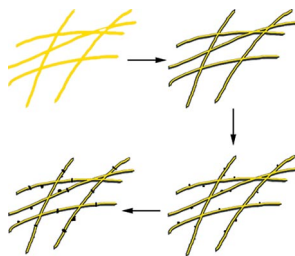
T. M. Klapötke,* C. Miró Sabaté, A. Penger, M. Rusan, J. M. Welch 880–896

Energetic Salts of Low-Symmetry Methylated 5-Aminotetrazoles

Keywords: Density functional calculations / Energetic materials / Heterocycles / Secondary interactions

Ferromagnetic Nanocomposites

1D CdS-Ni Semiconductor-Magnetic nanocomposites were successfully fabricated through electrodeless plating of Ni on CdS nanowires. A conversion process was detected and confirmed, something which is favourable for the nonepitaxial growth of Ni nanoparticles onto CdS nanowires. Incorporation of ferromagnetic components into the 1D hybrid nanostructures could stimulate the exploration of their novel functionality.



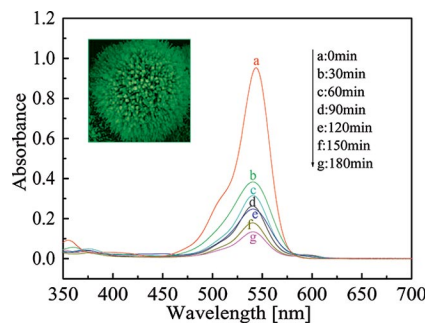
L. Wang, X. Liu, M. Yang, Y. Fan, J. Zhan* 897–902

Electroless Plating of Nickel Nanoparticles on CdS Nanowires

Keywords: Nanocomposites / Nanostructures / Ferromagnetism / Semiconductors / Aggregation

Indium Nanostructures

Urchin-like nanostructured H-In₂O₃, exhibiting good photocatalytic activity in the photodegradation of RhB, was prepared through annealing the InOOH precursor at 500 °C under ambient pressure.



L.-Y. Chen, Y. Liang, Z.-D. Zhang* 903–909

Corundum-Type In₂O₃ Urchin-Like Nanostructures: Synthesis Derived from Orthorhombic InOOH and Application in Photocatalysis

Keywords: Nanostructures / Indium / Photochemistry / Hydrolysis

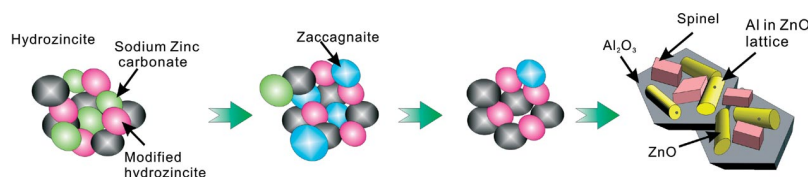
CONTENTS

Zinc Oxide Microstructure

S. Miao, R. N. d'Alnoncourt,* T. Reinecke,
I. Kasatkin, M. Behrens, R. Schlögl,
M. Muhler 910–921

A Study of the Influence of Composition
on the Microstructural Properties of ZnO/
Al₂O₃ Mixed Oxides

Keywords: Zinc / Aluminum / Coprecipitation / Heterogeneous catalysis



A series of ZnO/Al₂O₃ mixed oxide samples with varying Zn/Al ratio are investigated. Phases present in the dried precursor samples include hydrozincite, zaccagnaitte, and an unknown phase. ZnO, Al₂O₃,

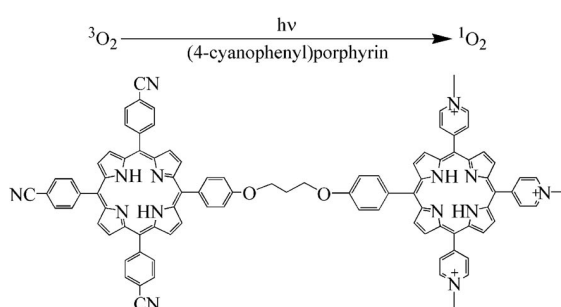
and spinel are found in the calcined samples. A combination of XRD and ²⁷Al MAS NMR is used to identify Al species incorporated into ZnO.

Porphyrins for Photodynamic Therapy

K. Wang, C.-T. Poon, W.-K. Wong,*
W.-Y. Wong, C. Y. Choi, D. W. J. Kwong,*
H. Zhang, Z.-Y. Li* 922–928

Synthesis, Characterization, Singlet-Oxygen Photogeneration, DNA Photocleavage and Two-Photon-Absorption Properties of Some (4-Cyanophenyl)porphyrins

Keywords: Porphyrinoids / Singlet oxygen / DNA cleavage / Photochemistry / Sensitizers



A series of (4-cyanophenyl)porphyrins have been prepared and structurally characterized. Their high singlet-oxygen quantum yields and two-photon absorption (2PA)

cross-sections qualify them as potential two-photon-absorption photodynamic therapeutic agents.

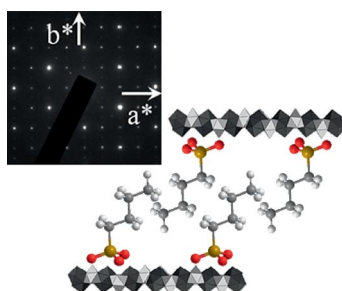
New Members of a Layered Host

K.-H. Lee, S.-H. Byeon* 929–936



Extended Members of the Layered Rare-Earth Hydroxide Family, RE₂(OH)₅-NO₃·*n*H₂O (RE = Sm, Eu, and Gd): Synthesis and Anion-Exchange Behavior

Keywords: Rare earths / Ion exchange / Layered compounds / Host-guest systems / Intercalations



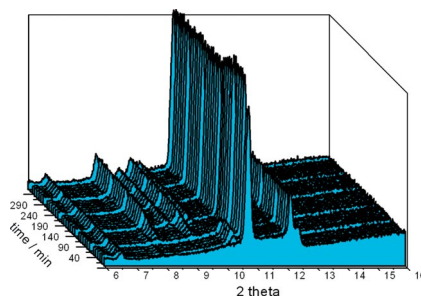
RE₂(OH)₅NO₃·*n*H₂O (RE = Gd, Eu, and Sm) have been prepared by a hydrothermal reaction. Highly polarizable hydroxocation layers enable these materials to undergo well-defined ion-exchange reactions with a wide range of organic anions.

In-Situ EDXRD Study of Thiostannates

N. Pienack, C. Näther,
W. Bensch* 937–946

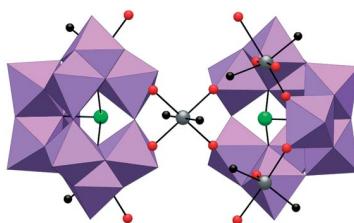
Solvothermal Syntheses of Two New Thiostannates and an In-Situ Energy Dispersive X-ray Scattering Study of Their Formation

Keywords: Solvothermal synthesis / Energy-dispersive X-ray diffraction / Thiostannates / Mixed-valent compounds / Kinetics / Reaction mechanisms



A mixed-valent Sn^{II}/Sn^{IV} thiostannate and a Cu-containing Sn^{IV} thiostannate coexist under solvothermal conditions.

Addition of $[\text{C}(\text{NH}_2)_3]^+$ cations to aqueous, acidic solutions containing $(\text{CH}_3)_2\text{SnCl}_2$ and $\text{Na}_9[\text{B}-\alpha\text{-XW}_9\text{O}_{33}]$ results in the selective crystallization of the dimeric $[\{(\text{CH}_3)_2\text{Sn}(\text{H}_2\text{O})\}_4\{(\text{CH}_3)_2\text{Sn}\}(\text{B}-\beta\text{-XW}_9\text{O}_{33})_2]^{8-}$ polyanions as the 2D hybrid organic–inorganic materials $[\text{C}(\text{NH}_2)_3]_8[\{(\text{CH}_3)_2\text{Sn}(\text{H}_2\text{O})\}_4\{(\text{CH}_3)_2\text{Sn}\}(\text{B}-\beta\text{-XW}_9\text{O}_{33})_2] \cdot 10\text{H}_2\text{O}$ ($\text{X} = \text{As}^{\text{III}}$ or Sb^{III}).



S. Reinoso, M. H. Dickman,
U. Kortz* 947–953

Selective Crystallization of Dimeric vs. Monomeric Dimethyltin-Containing Tungstoarsenates(III) and -antimonates(III) with the Guanidinium Cation



Keywords: Polyoxometalates / Tin / Organic–inorganic hybrid composites / Tungsten

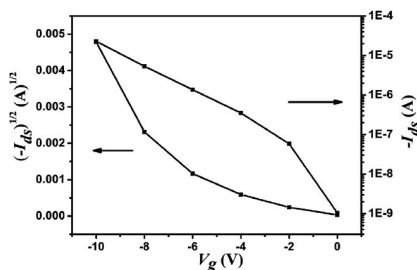
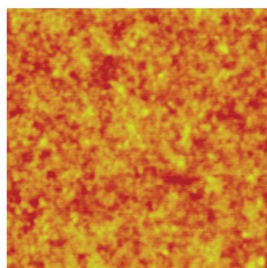
Field-Effect Transistors

P. Ma, Y. Chen, N. Sheng, Y. Bian,
J. Jiang* 954–960

Synthesis, Characterization and OFET Properties of Amphiphilic Mixed (Phthalocyaninato)(porphyrinato)europium(III) Complexes



Keywords: Phthalocyanines / Porphyrinoids / Rare earths / Sandwich complexes / OFETs (organic field-effect transistors)



The mobility of (phthalocyaninato)(porphyrinato)europium(III) complexes reached $0.78 \text{ cm}^2 \text{ V}^{-1} \text{ s}^{-1}$, which is the highest value so far achieved for Langmuir–Blodgett

film-based organic field-effect transistors, as a result of the narrow energy gap (1.04 eV) of this compound.

* Author to whom correspondence should be addressed.

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