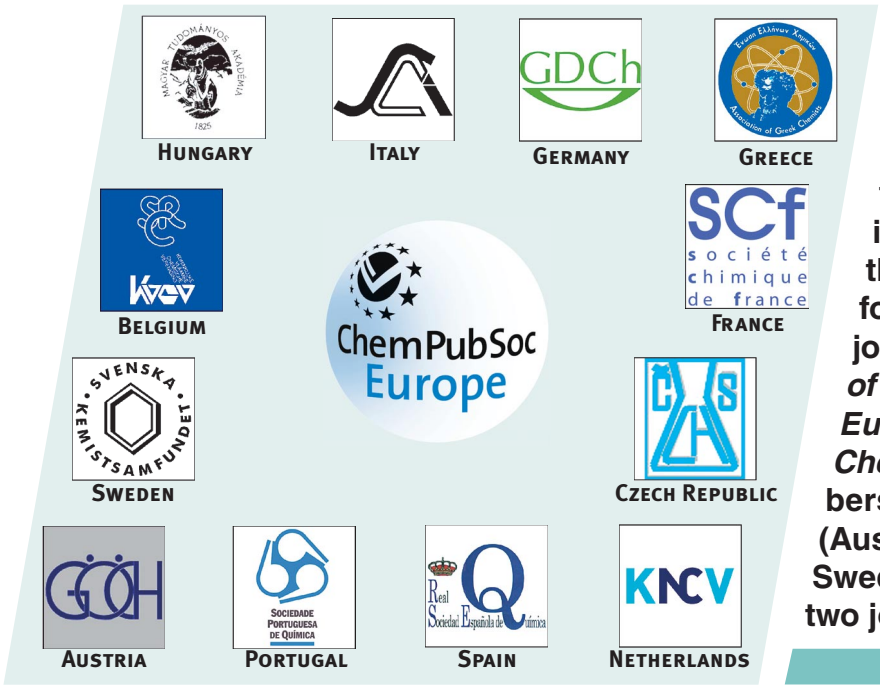
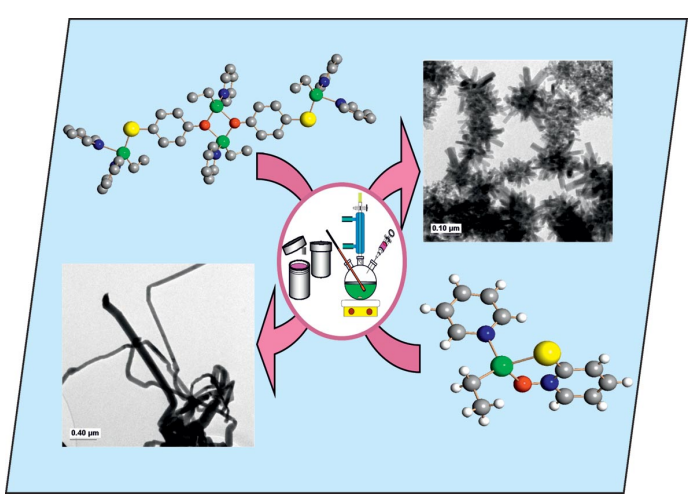


A union formed by chemical societies in Europe (ChemPubSoc Europe) has taken the significant step into the future by merging their traditional journals, to form two leading chemistry journals, the *European Journal of Inorganic Chemistry* and the *European Journal of Organic Chemistry*. Three further 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 $\{(\mu_4\text{-3MPA})[Zn(Et)(py)]_4\}_\infty$ (top left) and (2MPO)Zn(Et)py (bottom right) used for the production of $Zn(O_xS_y)$ nanomoaterials. 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.

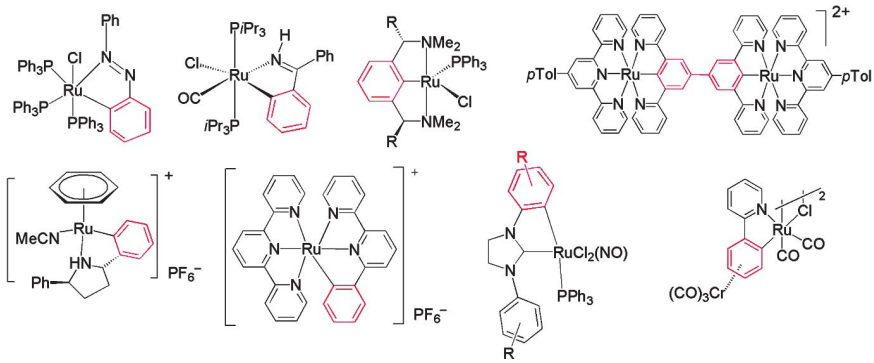


CONTENTS

MICROREVIEW

Cycloruthenated Compounds

Keywords: Cyclometalation / Ruthenium / Synthesis design / Reactivity / Catalyst precursors / Luminescence / Electrochemistry / Biological properties

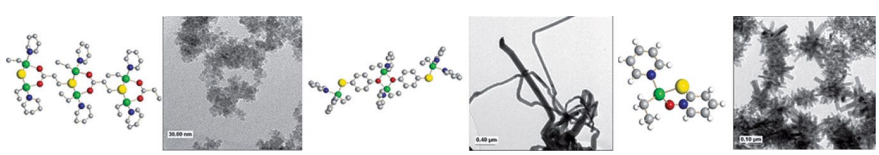


This review describes the synthesis and some applications of cycloruthenated compounds. Emphasis is placed on the C–H activation protocol to obtain this important class of organometallic species. Some of them display interesting properties in various domains such as catalysis, electrochemistry, photophysics and biology.

FULL PAPERS

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

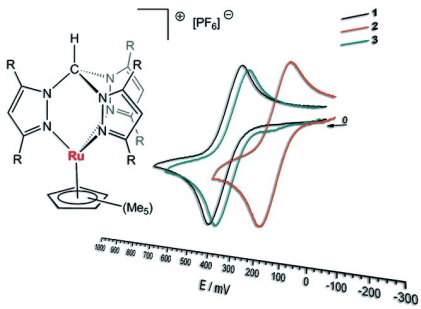
Keywords: Scandium / Olefins / Polymerization / X-ray diffraction

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 activated with two equivalents of [Ph_3C]-[$B(C_6F_5)_4$].

Tripodal Ligands

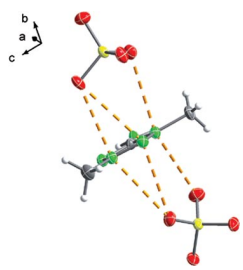
A straightforward synthetic route to novel ruthenium(II) mixed-sandwich complexes containing tris(pyrazolyl)methane and cyclopentadienyl ligands is described. Detailed NMR investigations, molecular structures and the electrochemical properties of these complexes are also presented.



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

Nitrogen Heterocycles

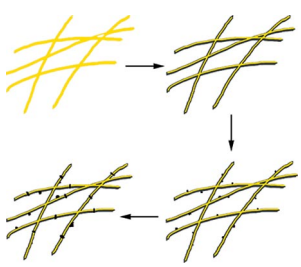
Energetic salts based on 5-amino-2-methyl- and 5-amino-1,3-dimethyltetrazolium cations with energetic anions have been synthesized and characterized. Secondary interactions between the cation and anion explain their higher densities compared with 5-amino-1,4-dimethyltetrazolium salts, giving a new class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



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

Ferromagnetic Nanocomposites

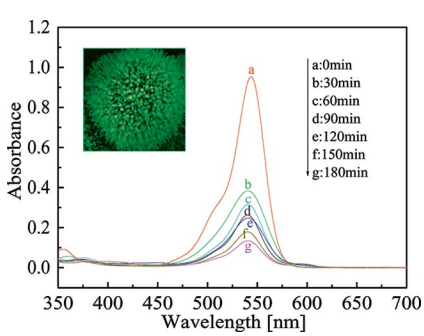
1D CdS-Ni Semiconductor-Magnetic nanocomposites were successfully fabricated through electronless plating of Ni on CdS nanowires. A conversion process was detected and confirmed, something which is favourable for the nonepitaxial growth of Ni nanoparticles onto CdS nanowires. Incorporation of ferromagnetic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



Keywords: Nanocomposites / Nanostructures / Ferromagnetism / Semiconductors / Aggregation

Indium Nanostructures

Urchin-like nanostructured H-In_2O_3, exhibiting good photocatalytic activity in the photodegradation of RhB, was prepared through annealing the InOOH precursor at 500 °C under ambient pressure.

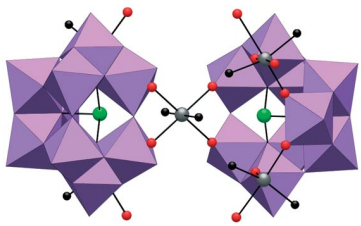


Keywords: Nanostructures / Indium / Photochemistry / Hydrolysis

CONTENTS

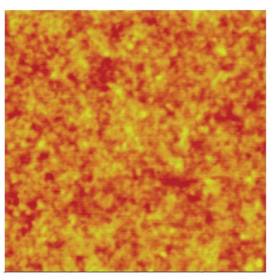
Selective Crystallization of POMs

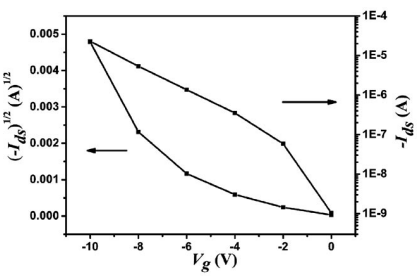
Addition of $[C(NH_2)_3]^+$ cations to aqueous, acidic solutions containing $(CH_3)_2SnCl_2$ and $Na_9[B\text{-}\alpha\text{-}XW_9O_{33}]$ results in the selective crystallization of the dimeric $[\{(CH_3)_2Sn(H_2O)\}_4\{(CH_3)_2Sn\}(B\text{-}\beta\text{-}XW_9O_{33})_2]^{8-}$ polyanions as the 2D hybrid organic–inorganic materials $[C(NH_2)_3]_8[\{(CH_3)_2Sn(H_2O)\}_4\{(CH_3)_2Sn\}(B\text{-}\beta\text{-}XW_9O_{33})_2]\cdot 10H_2O$ (X = As^{III} or Sb^{III}).



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

Field-Effect Transistors





The mobility of (phthalocyaninato)(porphyrinato)europium(III) complexes reached 0.78 $cm^2V^{-1}s^{-1}$, 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.

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

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

If not otherwise indicated in the article, papers in issue 6 were published online on February 10, 2009

