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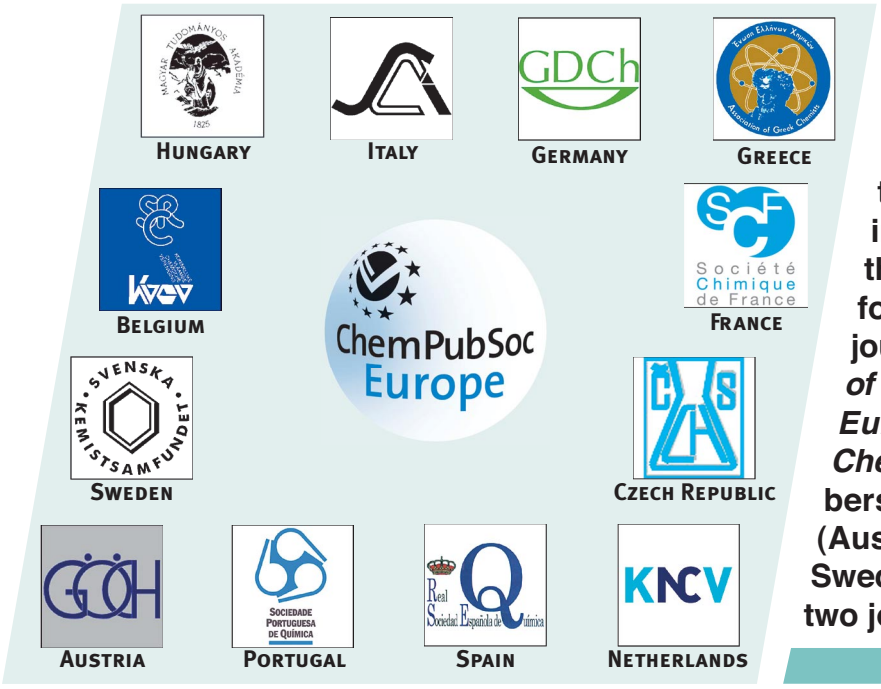


A union formed by chemical societies in Europe (ChemPubSoc Europe) has taken the significant step into the future by merging their traditional journals, to form two leading chemistry journals, the *European Journal of Inorganic Chemistry* and the *European Journal of Organic Chemistry*. Three further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

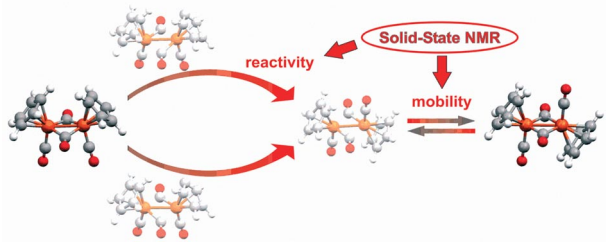
COVER PICTURE

The cover picture shows the logo of the centenary year of the Società Chimica Italiana (SCI) superimposed on the view of the bay of Naples from Sorrento, where the SCI XXIII National Congress celebrating this anniversary will take place. The Società Chimica Italiana was one of the first to amalgamate its journal, *Gazzetta Chimica Italiana*, with those of other European Chemical Societies to form the *European Journal of Inorganic Chemistry* and the *European Journal of Organic Chemistry* with the far-sighted vision to create out of the national journals a high-quality international forum for the dissemination of research in chemistry in the broadest sense. The conglomerate of European Chemical Societies, now called ChemPubSoc Europe, publishes a family of high-quality journals based wherever possible on previously existing journals. Thus ChemPubSoc Europe has turned two other journals previously owned by the Società Chimica Italiana into the highly successful *ChemMedChem* (formerly *Il Farmaco*) and *ChemSusChem* (*Annali di Chimica*).

EurJIC European Journal of Inorganic Chemistry

MICROREVIEW

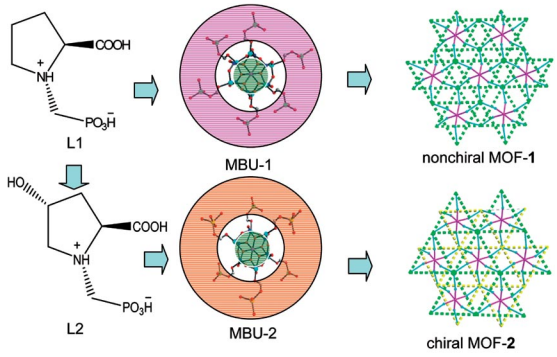
Keywords: Solid-state NMR / Solid-state mobility / Solid-state reactivity / Transition metal complexes / Ligand fluxionality / Solid-solid reactions / Solid-gas reactions



The key question of the influence of the mobility on the solid-state reactivity is the occasion for presenting several selected examples of dynamics and reactivity of transition metal complexes as seen by advanced solid-state NMR techniques.

SHORT COMMUNICATION

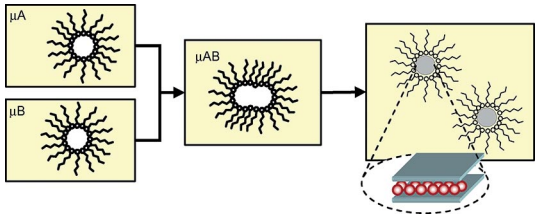
Keywords: Chirality / Metal–organic frameworks / Cluster compounds / Molecular building units



By introducing an additional chiral site into the original ligand (H_3L1), we achieved the transformation of a MOF from a nonchiral to a chiral structure, which provides a new strategy for designing chiral compounds.

FULL PAPERS

Keywords: Microreactors / Micelles / Nanostructures / Layered compounds / Hydrotalcite-like compounds



MgAl, NiAl and ZnAl hydrotalcite-like compounds (HTlcs) were prepared as colloidal dispersions of nanoparticles using water-in-oil microemulsions. Nanoparticle sizes and shapes were examined by transmission electron microscopy and atomic force microscopy. HTlc nanocrystals recovered from the reaction medium were characterized with chemical and thermogravimetric analyses, X-ray powder diffraction, BET surface analysis and porosity and scanning electron microscopy.

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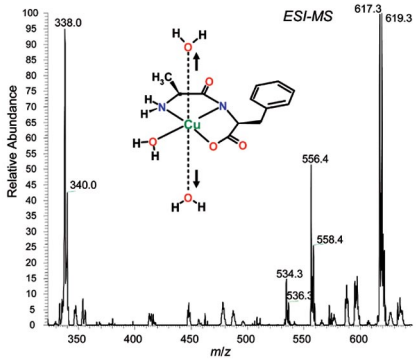
Copper(II)−Dipeptide Systems

The Contribution of Electrospray Mass Spectrometry to the Study of Metal Complexes: The Case of Copper(II)−Dipeptide Systems

Keywords: Copper / Coordination modes / Mass spectrometry / Peptides / UV/Vis spectroscopy

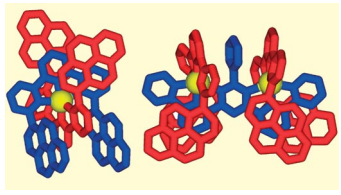


By investigating the copper(II) complexes of a series of dipeptides it was ascertained that the in-plane coordinated water molecule was not removed in ESI-MS experiments.

Metallosupramolecular Chemistry

Modulation of Photochemical Properties in Ion-Controlled Multicomponent Dynamic Devices

Keywords: Fluorescence / Molecular devices / Structural switching / Metallosupramolecular complexes / Terpyridine / Zinc

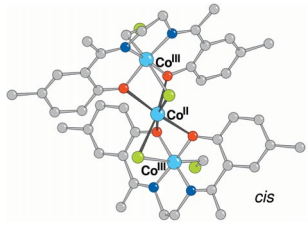


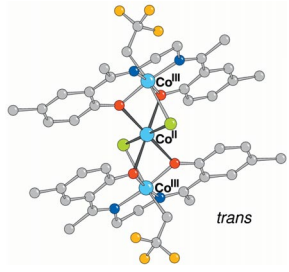
The pyrene-terpyridine-pyrene-based receptor **1** converts from a W to a U shape upon ion-metal cation complexation. The U form of **1** is capable of substrate binding through insertion between the lateral donor-pyrene arms of acceptor-terpyridine-type systems, with the participation of the metal ions, simultaneously coordinating the binding units of such multicomponent dynamic devices.

Mixed-Valent Co Complexes

Crystal Structures and Solution Behavior of Paramagnetic, Trinuclear, Mixed-Valent Cobalt Complexes with Salen-Type Ligands

Keywords: Mixed-valent compounds / Cobalt / N,O ligands / Solid-state structures / NMR spectroscopy





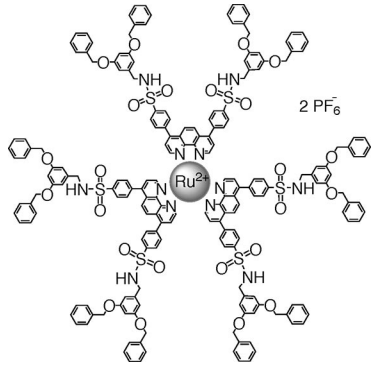
Three new trinuclear mixed-valent cobalt complexes, which show different configurations (*cis* or *trans*) in the solid state, have been synthesized and fully characterized.

The isotropically shifted ^{1}H NMR spectra show that both the *cis* and *trans* isomers are present in solution, with interconversion being slow on the NMR time-scale.

Luminescent Dendrimers

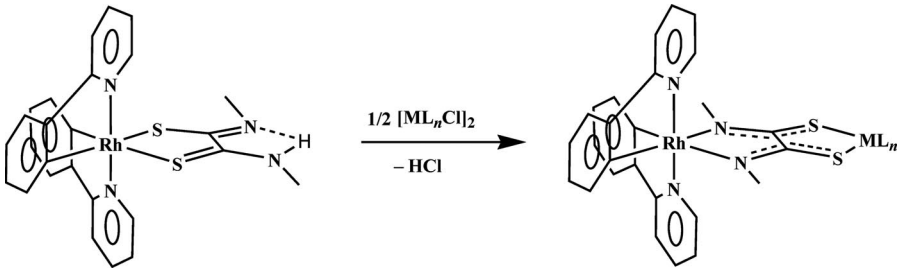
Long-Lived Luminescent Dendrimers with a [Ru(dpp)$_3$]$^{2+}$-Type Core: Synthesis and Photophysical Properties

Keywords: Dendrimers / Dioxygen quenching / Luminescence / N ligands / Ruthenium



Four metallodendrimers with a photoactive luminescent [Ru(dpp)$_3$]$^{2+}$-type core were prepared. The photophysical characterisation revealed a dendritic effect on the excited-state lifetimes, which were found to increase with growing size of the surrounding dendritic shell.

Multitopological Ligands

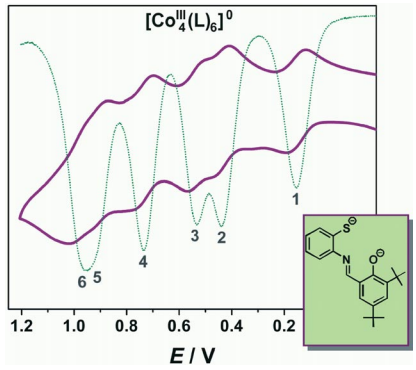


The metalloligand [Rh(2-phenylpyridine)$_2$-{H(isoamyl)$_2$C$_2$N$_2$S$_2$ κ-*S*,*S*-Rh}] changes the coordination mode of the binucleating dithiooxamide when linked to a soft metal fragment ML$_n$ [ML$_n$ = Rh(cod), Pd(η^3-allyl), PdCl(*n*-propylphosphane)].

Keywords: Rhodium / Metalloligands / Heterometallic complexes / Coordination modes / NMR spectroscopy

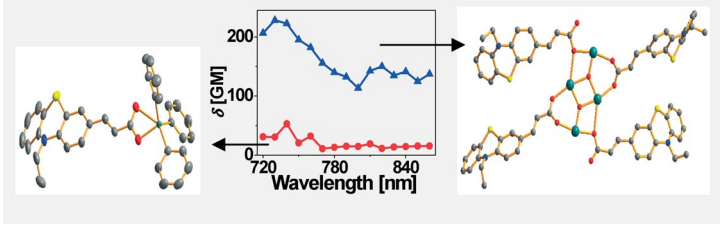
Ligand Radicals

Polynuclear complexes of Cu, Pd, Pt, and Co were prepared by using a N,O,S-donor Schiff base ligand, 2-[(*E*)-2-mercaptophenylimino]methyl-4,6-di-*tert*-butylphenolate. The tetrameric Co and Pd complexes show multiple reversible redox processes. The oxidation was found to be ligand-based, leading to compounds with coordinated phenoxyl radical ligands.



Keywords: Schiff bases / Polynuclear complexes / Electrochemistry / Radicals / Density functional calculations

Organostannoxanes

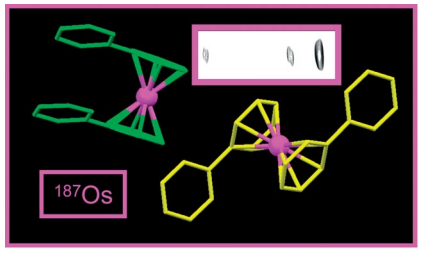


(*E*)-3-(10-ethylphenothiazine-3-yl)acrylic acid (LCOOH) and two organostannoxanes have been synthesized and fully characterized. Their structures were solved by single-crystal X-ray diffraction determination. The two-photon absorption properties of the compounds are much more enhanced than that of LCOOH.

Keywords: Tin / Photophysics / Structure–activity relationship / Charge transfer

Sandwich Complexes

The osmium biphenyl sandwich complex has both staggered and eclipsed configurations in its X-ray crystal structure, in contrast to the ruthenium complex. The use of inverse heteronuclear multiple bond correlation spectroscopy allows facile observation of the ^{187}Os resonance despite the extreme insensitivity of ^{187}Os to NMR spectroscopic detection by normal methods.



Keywords: Osmium / Ruthenium / Sandwich complexes / Arenes / NMR spectroscopy / Structure elucidation

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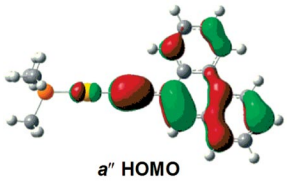
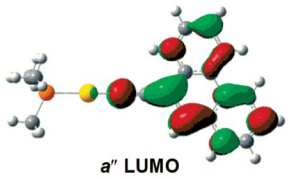
Calixarene Probe for Anion

Keywords: Gold / Alkynyl complexes / Luminescence / Triplet states / Density-functional theory

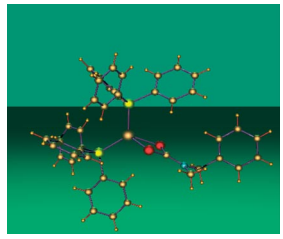




A series of new alkynylgold(I) complexes has been synthesized; the luminescence of (arylalkynyl)gold complexes is characterized. The structures of ligand-centered and metal-centered triplet excited states have been optimized within the density-functional theory.

Copper Complexes

Keywords: Copper / Dithiocarbamate / Density functional calculations / Semiconductivity / Nonlinear optics



The facile synthesis, crystal structures of [{Cu(PPh$_3$)$_2$}$_2$(piperzdtc)] (**1**) and [{Cu(PPh$_3$)$_2$}(BzMedtc)] (**2**), interpretation of the NLO property of asymmetrical **2** by DFT using the finite-field perturbation method and electronic absorptions by TD-DFT calculations and conducting properties of **1** and **2** are reported.

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

If not otherwise indicated in the article, papers in issue 17 were published online on May 27, 2009

