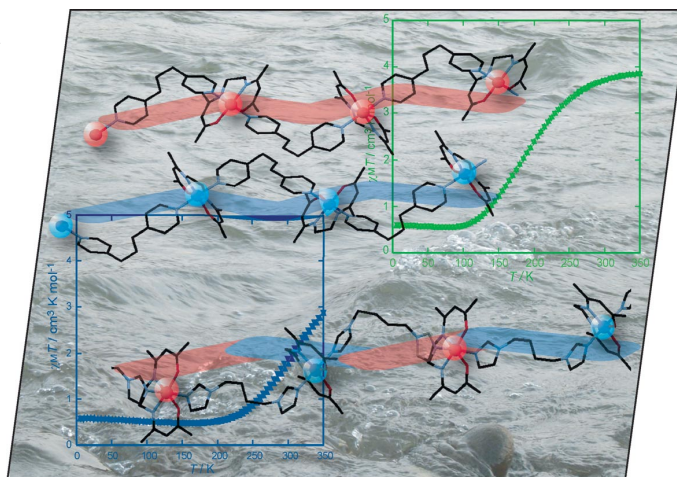


A union formed by chemical societies in Europe (ChemPubSoc Europe) has taken the significant step into the future by merging their traditional journals, to form two leading chemistry journals, the *European Journal of Inorganic Chemistry* and the *European Journal of Organic Chemistry*. Three further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

COVER PICTURE

The cover picture shows two types of 1D polynuclear spin crossover (SCO) iron(III) complexes, in which planar iron(III) species are bridged axially by a linear bridging ligand to give a 1D structure. In the intermediate spin state between the HS and LS states, the one complex consists of alternately arrayed HS and LS chains, whereas the other consists of alternately arrayed HS and LS units within a chain. The results demonstrate two different SCO transmission mechanisms, that is, SCO occurs in a chain-by-chain manner for the first complex and between adjacent units within a chain for the second one. Details are discussed in the article by N. Matsumoto et al. on p. 721ff.



MICROREVIEW

Carbide Nanomaterials

V. G. Pol,* S. V. Pol,
A. Gedanken 709–715

One-Step Synthesis and Characterization of SiC, Mo₂C, and WC Nanostructures

Keywords: Carbides / Synthesis design / Nanotubes / Nanorods / High-surface-area materials



This microreview discusses a novel approach for the syntheses of silicon, tungsten, and molybdenum carbides in the form of either nanoparticles/nanorods or nanotubes at a relatively low temperature by employing the solvent-, template-free and straightforward RAPET (Reactions under Autogenic Pressure at Elevated Temperature) process.

SHORT COMMUNICATION

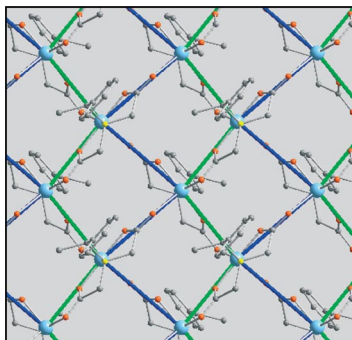
Chiral Coordination Networks

J. Fielden, K. Quasdorf, A. Ellern,
P. Kögerler* 717–720



A Homochiral 2D Copper(II) Coordination Framework

Keywords: Coordination modes / N,O ligands / Ligand design / Chirality / Magnetic properties



(*S*)-phenylethylaminodiacetate [(*S*)-peadaa] directs formation of a novel, homochiral 4^d net displaying an unusual Cu...Cu connectivity mode.

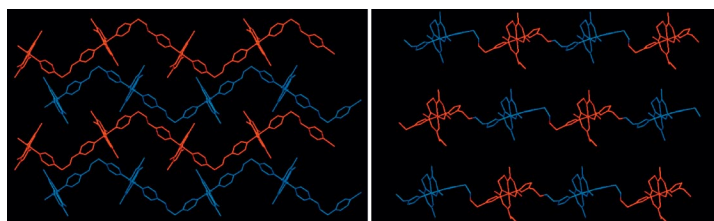
FULL PAPERS

Spin-Crossover Complexes

S. Imatomi, S. Hashimoto,
N. Matsumoto* 721–726

Inter- and Intrachain Spin-Transition Processes in One-Dimensional Polynuclear Iron(III) Complexes of *N,N'*-Ethylenebis(acetylacetonylideneimine) Bridged by 1,3-Bis(4-pyridyl)propane and 1,4-Bis(imidazolyl)butane

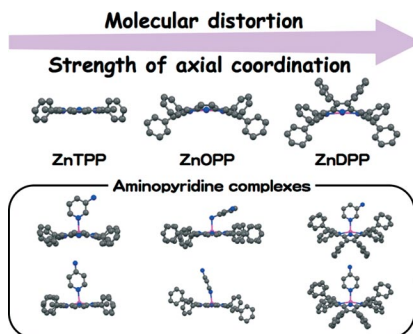
Keywords: Iron / Spin crossover / Chain structures / Solid-state structures / Magnetic properties



Two types of one-dimensional (1D) spin-crossover (SCO) iron(III) complexes were studied. One consists of two crystallographically independent 1D chains, and

SCO occurs in chain-by-chain fashion, and the other consists of two molecular units within a chain, whereby SCO is confined to adjacent Fe units within the chain.

The effect of conformational distortion of a porphyrin ring on the Lewis acidity of a metal center was examined for (porphyrinato)zinc(II) complexes with porphyrin ligands at various extents of distortion. The binding constants of pyridine derivatives reveal that the distortion of the porphyrin ring enhances the Lewis acidity of the Zn center to strengthen the axial coordination of pyridine derivatives.



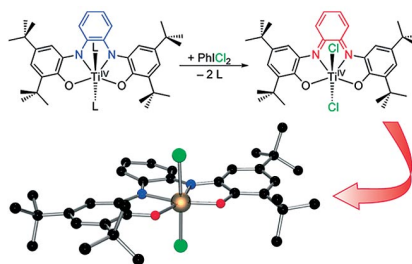
T. Kojima,* T. Nakanishi, T. Honda, R. Harada, M. Shiro, S. Fukuzumi* 727–734

Impact of Distortion of Porphyrins on Axial Coordination in (Porphyrinato)zinc(II) Complexes with Aminopyridines as Axial Ligands

Keywords: Porphyrinoids / N ligands / Coordination modes / Zinc / Molecular distortion

Redox-Active Ligands

Group IV metal complexes of the redox-active ligand $[\text{N}_2\text{O}_2^{\text{red}}]^{4-}$ react with halogen oxidants to afford oxidative-addition-type products. The salen-like ligand binds strongly to the d^0 metal atoms titanium(IV), zirconium(IV) and hafnium(IV) and acts as a two-electron reservoir to enable an oxidative addition pathway.



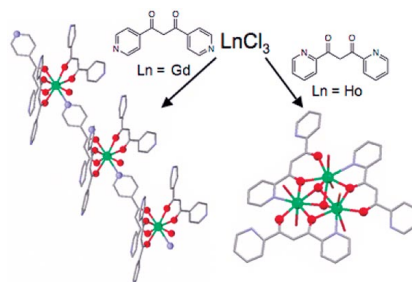
K. J. Blackmore, N. Lal, J. W. Ziller, A. F. Heyduk* 735–743

Group IV Coordination Chemistry of a Tetradentate Redox-Active Ligand in Two Oxidation States

Keywords: Redox-active ligands / Oxidation / N_2O ligands / d^0 metals / Macrocyclic ligands

Lanthanoid Clusters and Polymers

Regioisomers (*ortho* and *para*) of pyridyl-functionalised propane-1,3-diones yielded a monodimensional polymeric chain or a trinuclear hydroxo cluster upon reaction with LnCl_3 ($\text{Ln} = \text{Gd}, \text{Ho}$). Structural and magnetic investigation of these compounds is herein reported.

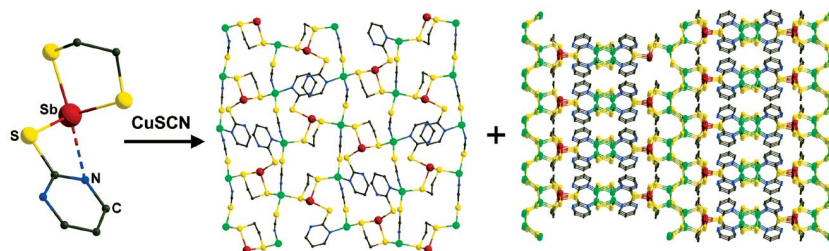


P. C. Andrews, G. B. Deacon, R. Frank, B. H. Fraser, P. C. Junk,* J. G. MacLellan, M. Massi, B. Moubaraki, K. S. Murray, M. Silberstein 744–751

Formation of Ho^{III} Trinuclear Clusters and Gd^{III} Monodimensional Polymers Induced by *ortho* and *para* Regioisomers of Pyridyl-Functionalised β -Diketones: Synthesis, Structure, and Magnetic Properties

Keywords: β -Diketonate ligands / Coordination polymers / Cluster compounds / Molecular magnets / Ketones / N_2O ligands / Chelates

Heterometallic Thiolate Polymers



Three examples of heterometallic $\text{Sb}^{\text{III}}-\text{Cu}^{\text{I}}$ thiolate coordination polymers $[\{\text{Sb}_2(\text{edt})_2-(\mu_3\text{-S})\text{CuCl}(\text{CuSCN})\}_n]$, $[\{\text{Sb}(\text{edt})(\text{pymt})\}_2(\text{CuSCN})_3]_n$, and $[\{\text{Sb}(\text{edt})(\text{pymt})\}(\text{CuSCN})_2]_n$ ($\text{edt} = \text{ethane-1,2-dithiolate}$;

$\text{pymt} = 2\text{-pyrimidinethiol}$) were synthesized using $[\text{Sb}(\text{edt})\text{Cl}]$ or $[\text{Sb}(\text{edt})(\text{pymt})]$ as metalloligands. Their optical absorption spectra were studied and DFT calculation were performed.

Z.-H. Li, L.-H. Li, L.-M. Wu, S.-W. Du* 752–759

Assembly of Novel 2D and 3D Heterometallic $\text{Sb}^{\text{III}}-\text{Cu}^{\text{I}}$ Polymers Based on Antimony(III) Thiolates as Metallothiolato Ligands

Keywords: Coordination polymers / Antimony / Structure elucidation / Band gap / Density functional calculations

CONTENTS

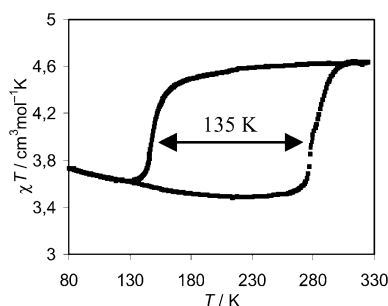
Prussian Blue Analogues

L. Salmon, E. J. M. Vertelman,
C. B. Murgui, S. Cobo, G. Molnár,
P. J. van Koningsbruggen,*
A. Bousseksou* 760–768



Valence-Tautomeric RbMnFe Prussian Blue Analogues: Composition and Time Stability Investigation

Keywords: Rubidium / Charge transfer / Nonstoichiometric compounds / Manganese / Iron



Three different stoichiometric forms of $\text{Rb}_x\text{Mn}[\text{Fe}(\text{CN})_6]_y \cdot z\text{H}_2\text{O}$ Prussian blue analogues were synthesized and characterized. ^{57}Fe Mössbauer and X-ray powder measurements revealed the electron-transfer-active centers. The stability of the compounds with time and following heat treatment is also discussed.

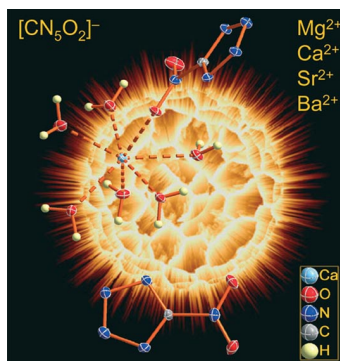
Energetic N-Heterocycles

T. M. Klapötke,* C. M. Sabaté,
J. M. Welch 769–776



Alkaline Earth Metal Salts of 5-Nitro-2H-tetrazole: Prospective Candidates for Environmentally Friendly Energetic Applications

Keywords: Nitrogen heterocycles / Alkaline earth metals / Nitro compounds / Energetic materials



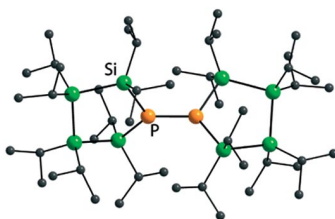
Alkaline earth metal salts with the 5-nitro-tetrazolate anion $[\text{CN}_5\text{O}_2]^-$, a new family of thermally stable, highly sensitive compounds, show great promise as environmentally more friendly energetic materials.

Polycyclic Silylphosphanes

S. Traut, C. von Hänisch,*
H.-J. Kathagen 777–783

Metalation and Oxidative Coupling of the Unique Cyclic Silylphosphanes $(i\text{Pr}_2\text{Si})_3\text{PH}$ and $(i\text{Pr}_2\text{Si})_4\text{PH}$

Keywords: Phosphorus / Silicon / Oligosilanes / Lithiumphosphanids / Metalation



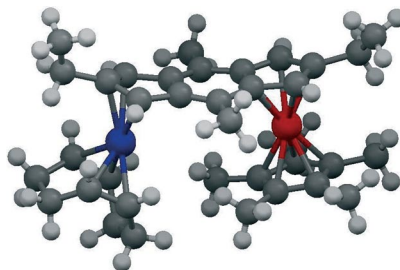
Two bicyclic silyldiphosphanes were obtained from the corresponding cyclic silylphosphanes $(i\text{Pr}_2\text{Si})_n\text{PH}$ ($n = 3, 4$) by lithiation with $n\text{BuLi}$ and subsequent oxidative coupling with dibromomethane.

Heterobinuclear Rhodium Complexes

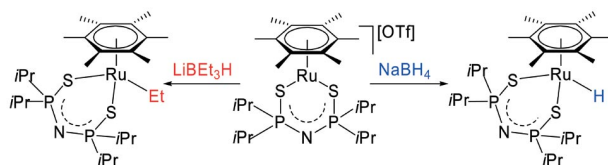
C. Adams, C. Morales-Verdejo,
V. Morales, D. MacLeod-Carey,
J. M. Manríquez, I. Chávez,*
A. Muñoz-Castro, F. Delpech,* A. Castel,
H. Gornitzka, M. Rivière-Baudet,
P. Rivière, E. Molins 784–791

Heterobinuclear *s*-Indacene Rhodium Complexes: Synthesis and Characterization

Keywords: Heterometallic complexes / Cooperative effects / Bridging ligands / Metal–metal interactions



Heterobinuclear *s*-indacene rhodium complexes were recently synthesized, bearing secondary metallic fragments such as Cp^*M ($\text{M} = \text{Fe}, \text{Co}, \text{and Ru}$). An unprecedented complex such as the *syn*-isomer of $\text{Cp}^*\text{Ru}[\text{s-indacenediide}]\text{Rh}(\text{cod})$ was also formed and identified by X-ray diffraction techniques.



The 16-electron complexes $[\text{Ru}(\eta^6\text{-C}_6\text{Me}_6)\text{-}\{\eta^2\text{-N}(\text{R}_2\text{PQ})_2\}][\text{OTf}]$ ($\text{R} = \text{Ph}, i\text{Pr}$; $\text{Q} = \text{S}, \text{Se}$) have been synthesised from $[\text{Ru}(\eta^6\text{-C}_6\text{Me}_6)\text{Cl}_2]_2$, AgOTf and $\text{K}[\text{N}(\text{R}_2\text{PQ})_2]$. Treatment of $[\text{Ru}(\eta^6\text{-C}_6\text{Me}_6)\{\eta^2\text{-N}(i\text{Pr}_2\text{-}$

$\text{PS})_2\}][\text{OTf}]$ with $\text{Li}[\text{BEt}_3\text{H}]$ and NaBH_4 afforded $[\text{Ru}(\eta^6\text{-C}_6\text{Me}_6)\{\eta^2\text{-N}(i\text{Pr}_2\text{PS})_2\}\text{Et}]$ and $[\text{Ru}(\eta^6\text{-C}_6\text{Me}_6)\{\eta^2\text{-N}(i\text{Pr}_2\text{PS})_2\}\text{H}]$, respectively.

W.-M. Cheung, W.-H. Chiu,
I. D. Williams, W.-H. Leung* 792–798

Ruthenium η^6 -Hexamethylbenzene Complexes Containing Dichalcogenoimidodiphosphinate Ligands

Keywords: Ruthenium / Arene complexes / Sandwich complexes / Dithiolate ligand

* 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 5 were published online on January 29, 2009