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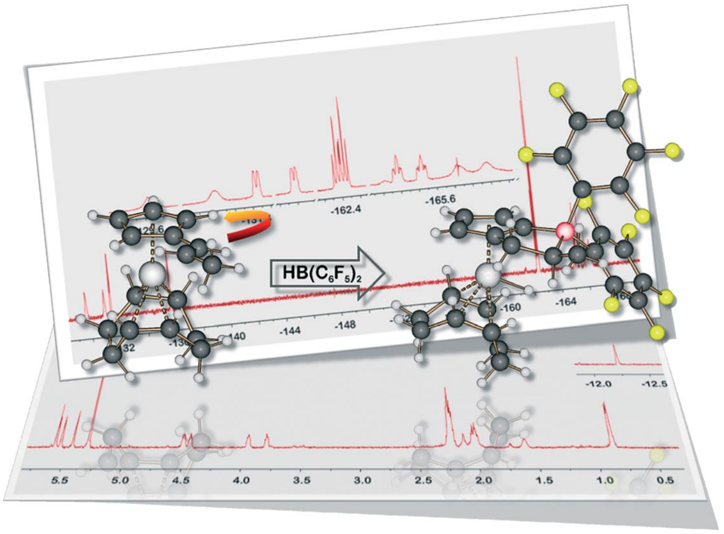
The EUChemSoc Societies have taken the significant step into the future by merging their traditional journals, to form two leading chemistry journals, the *European Journal of Inorganic Chemistry* and the *European Journal of Organic Chemistry*. Three further EUChemSoc Societies (Austria, Czech Republic and Sweden) are Associates of the two journals.

COVER PICTURE

The cover picture shows the regioselective hydroboration of (*trans*-$CH_3-CH=CH-C_5H_4$)Ir(cod) (X-ray structure on the left) with bis(pentafluorophenyl)borane followed by an intermolecular electrophilic aromatic substitution reaction at the Cp ring to yield the respective boron-containing heterocycle. In this case the iridium metal acts as an internal metal base to yield the corresponding zwitterionic iridium hydride complex (X-ray structure on the right). At the bottom, the ^1H NMR (600 MHz, CD_2Cl_2, −20°C) spectrum of the iridium hydride complex is pictured with the omission of the Ir-^1H domain at $\delta = -12.23$ ppm. The corresponding ^{19}F NMR (564 MHz, CD_2Cl_2, −30°C) spectrum with expanded areas is depicted in the background. Further details are provided in the article by G. Erker et al. on p. 2273ff.



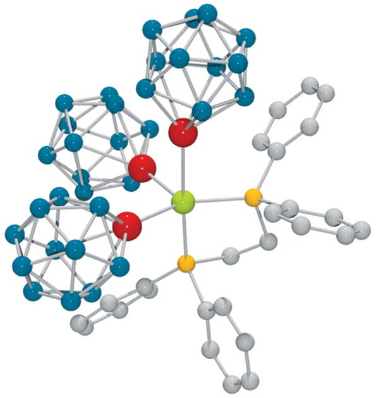
SHORT COMMUNICATIONS

Tin Coordination

M. Kirchmann, T. Gädt, K. Eichele, L. Wesemann* 2261–2265

Nickel Coordination Compounds of Stanna-*closo*-dodecaborate

Keywords: Boranes / Nickel / Tin / ^{119}Sn NMR spectroscopy / N-heterocyclic carbenes



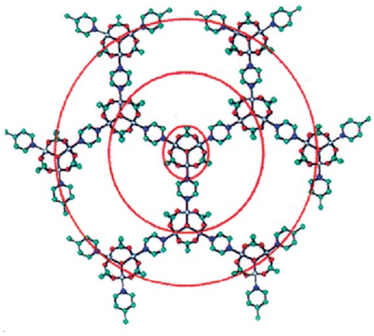
The reaction of stanna-*closo*-dodecaborate with [(dppm)NiBr$_2$] and [(dppe)NiBr$_2$] resulted in the formation of trigonal-bipyramidal compounds [(dppm)Ni(SnB$_{11}$H$_{11}$)$_3$]$^{4-}$ and [(dppe)Ni(SnB$_{11}$H$_{11}$)$_3$]$^{4-}$, respectively, which exhibit fluxional behavior in solution. Furthermore, the reaction of stannaborate with [(Im*i*Pr$_2$Me$_2$)$_2$NiBr$_2$] yielded the nonfluxional square-planar coordination compound [(Im*i*Pr$_2$Me$_2$)$_2$Ni(SnB$_{11}$H$_{11}$)$_2$]$^{2-}$.

Electroactive Dendrimers

S. Nikolaou, H. E. Toma* 2266–2271

A Convergent Approach for the Generation of Dendrimers Containing the [Ru$_3$O(CH$_3$COO)$_6$] Electroactive Core

Keywords: Cluster compounds / Dendrimers / Mixed-valent compounds / Self-assembly / Cyclic voltammetry



The cluster dendrimer encompassing 30 ruthenium atoms can transfer of up to ten electrons at predetermined potentials, providing new exciting patterns of electron exchange.

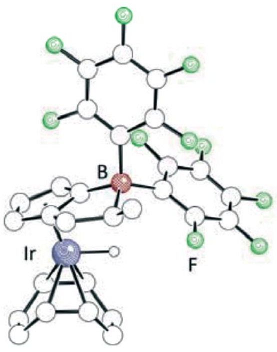
FULL PAPERS

Cp Ring Annelation

C. Herrmann, G. Kehr, R. Fröhlich, G. Erker* 2273–2277

Reactions of Pendant Boryl Groups in Cp–Metal Complexes: Heterocyclic Ring Annelation in a CpIr System

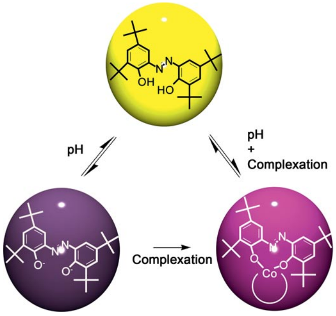
Keywords: Isomerization / Iridium / Hydrides / Boron / Electrophilic substitution



η^5-(1-Propenyl-C$_5$H$_4$)(cod)Ir reacts with HB(C$_6$F$_5$)$_2$ presumably by means of a sequence involving regioselective hydroboration, followed by an intramolecular electrophilic substitution reaction at its Cp ring system, to eventually yield an iridium hydride product that exhibits an annelated five-membered boron heterocycle.

Chromophoric Sensors

Different synthetic routes have been explored for the synthesis of the sterically protected azobisphenol ligand. Moreover, its complexation ability, together with the reversible deprotonation of the phenol groups, has used to create a chromophoric array of three states with significantly different colours, which can interconvert reversibly between them.



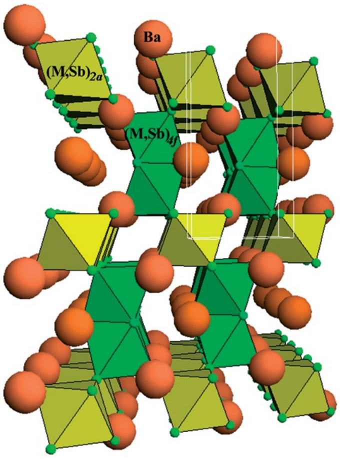
E. Evangelio, J. Saiz-Poseu, D. Maspoch,
K. Wurst, F. Busque,*
D. Ruiz-Molina* 2278–2285

Synthesis, X-ray Structure and Reactivity of a Sterically Protected Azobisphenol Ligand: On the Quest for New Multifunctional Active Ligands

Keywords: Azobisphenol ligand / Acid–base behaviour / Multifunctional ligands / Valence tautomerism / Chromophores

Hexagonal Double Perovskites

The crystal structure of the title perovskites can be defined as a 6-layered (6H) hexagonal perovskite structure (space group $P6_3/mmc$) containing dimer units of $(M,Sb)O_6$ octahedra sharing a face along the c axis. The Fe compound shows a severe antisite disordering, whereas the Co perovskite, containing Co^{2+}, is O-deficient, which reduces the disordering. No long-range magnetic ordering was found.



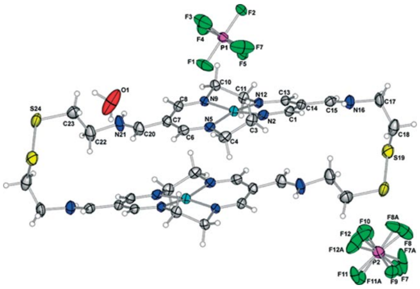
M. Retuerto, J. A. Alonso,*
M. J. Martínez-Lope, M. García-Hernández,
K. Krezhov, I. Spirov, T. Ruskov,
M. T. Fernández-Díaz 2286–2294

Crystal Structure and Magnetism of the 6H Hexagonal Double Perovskites Ba_2FeSbO_6 and $Ba_2CoSbO_{6-\delta}$: A Neutron Diffraction and Mössbauer Spectroscopy Study

Keywords: Antisite disorder / Spin glass / Hexagonal perovskites / Crystal structures / Defective perovskites / Oxygen deficiency

Self-Assembled Monolayers

Di- and trinuclear complexes containing two and three macrocyclic fragments bound by aliphatic linkers with the -S–S- built-in units self-assemble at gold surfaces to produce stable monolayer-modified electrodes. The immobilization of these highly charged cations on the electrode required the application of appropriate negative potential during the self-assembly process.

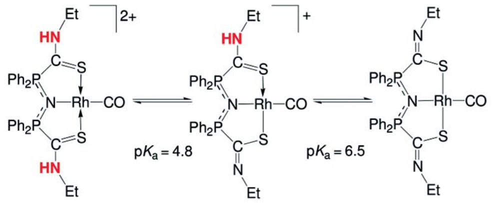


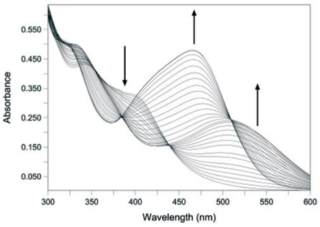
M. Galińska, B. Korybut-Daszkiewicz,
U. E. Wawrzyniak, R. Bilewicz,* P. Śledź,
R. Kamiński, P. Dominiak,
K. Woźniak* 2295–2301

Bis- and Tris(tetraazamacrocyclic) Copper Complexes with Disulfide Linkers

Keywords: Polynuclear complexes / Multicenter complexes / Copper / Macrocyclic ligands

Zwitterionic Rh^I Complexes





The zwitterionic ligand $EtNHC(S)Ph_2P=NPPh_2C(S)NEt$ (HEtSNS) is amphoteric. Its three forms, zwitterionic (HEtSNS), zwitterionic–anionic ($EtSNS^-$), and cationic (H_2EtSNS^+), show coordinating properties towards Rh^I species. The [Rh(CO)EtSNS] complex behaves as a biprotic base, and its absolute acid constants (pK_a) were determined in dichloromethane.

M. Delferro, D. Cauzzi,* R. Pattacini,
M. Tegoni, C. Graiff,
A. Tiripicchio 2302–2312

A Study on the Coordinative Versatility of the Zwitterionic S,N,S Ligand $EtNHC(S)Ph_2P=NPPh_2C(S)NEt$ in Its Anionic, Neutral and Cationic Forms – Determination of Absolute pK_a Values in CH_2Cl_2 of Rh^I Complexes

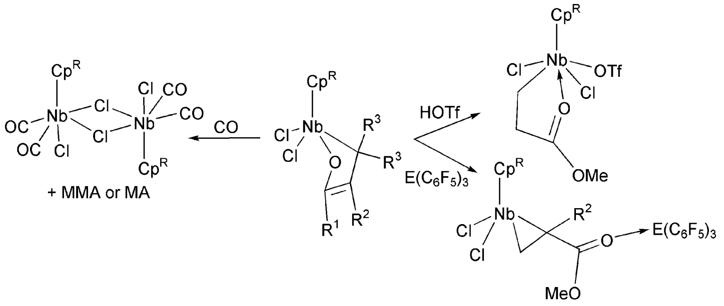
Keywords: Rhodium / Zwitterions / Coordination Modes / Acid–base properties

α,β-Unsaturated Carbonyl Compounds

R. A. Arteaga-Müller,
J. Sánchez-Nieves, P. Royo,*
M. E. G. Mosquera 2313–2320

Synthesis and Reactivity of Oxametallacyclic Niobium Compounds by Using α,β-Unsaturated Carbonyl Ligands

Keywords: Niobium / Cyclopentadienyl ligands / Diene ligands / Metallacycles / Acrylate ligands



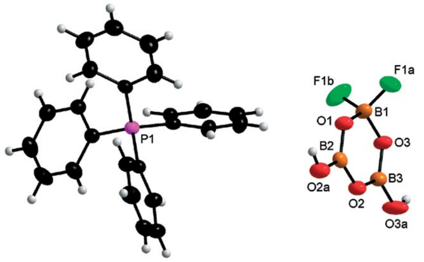
Mono(cyclopentadienyl)niobium compounds $[NbCp^RCl_2(LL)]$ with α,β-unsaturated carbonyl ligands (LL = MMA, MA, MO) have been synthesized, and their reactions with Brönsted (TfOH) and Lewis acids $[E(C_6F_5)_3]$ (E = B, Al) and with CO and CNAr have been studied.

Fluoroborates

M. Finze,* G. J. Reiss 2321–2325

Salts with the Triborate Anion $[B_3O_3F_2(OH)_2]^-$: A Combined Experimental and Theoretical Study

Keywords: Boron / Triborates / Fluoroborates / Structure elucidation / DFT calculations



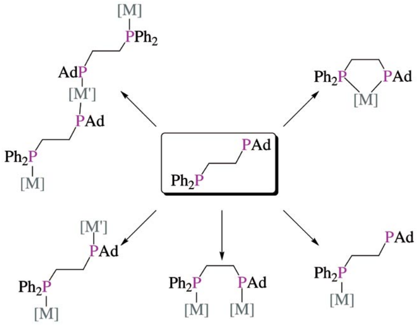
The $[B_3O_3F_2(OH)_2]^-$ anion was obtained from reaction mixtures of $[3\text{-NC-}B_{11}F_{10}]^{2-}$ with aqueous KOH. $[Ph_4P][B_3O_3F_2(OH)_2]$ and $[Ph_3MeP][B_3O_3F_2(OH)_2]$ were isolated as colorless crystals. The anions form infinite hydrogen-bonded chains in the solid state. In $[Ph_4P][B_3O_3F_2(OH)_2]$ these chains are flat and in the $[Ph_3MeP]^+$ salt they are twisted.

Phosphaadamantane Ligands

T. J. Cunningham, M. R. J. Elsegood,
P. F. Kelly, M. B. Smith,*
P. M. Staniland 2326–2335

Coordination Studies of a New Nonsymmetric Ditertiary Phosphane Bearing a Single Phosphaadamantane Cage

Keywords: Coordination modes / Heterometallics / Late-transition metals / P ligands



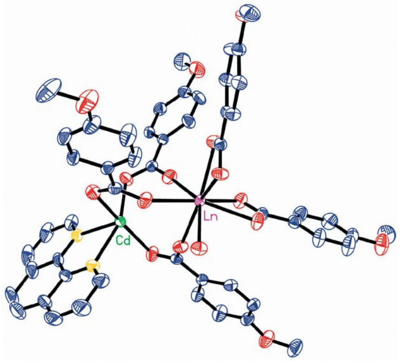
A new nonsymmetric ditertiary phosphane, $Ph_2PCH_2CH_2PAd$, is reported along with a study of the coordination chemistry of this ligand with a range of late transition metal precursors. Various bonding modes have been established (monodentate, chelate, bridging) and verified by a combination of spectroscopic (multinuclear NMR, FT-IR) and X-ray crystallographic techniques.

Heterodinuclear Cd–Ln Complexes

Y.-X. Chi, S.-Y. Niu,* Z.-L. Wang,
J. Jin 2336–2343

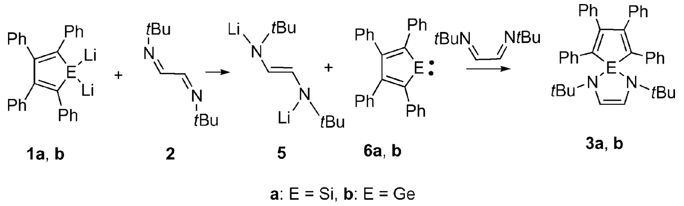
Syntheses, Structures and Photophysical Properties of New Heterodinuclear Cd–Ln Coordination Complexes (Ln = Sm, Eu, Tb, Nd, Ho, Er)

Keywords: Heterodinuclear coordination complexes / Lanthanides / Cadmium / Luminescence



Six heterodinuclear Cd–Ln complexes (Ln = Sm, Eu, Tb, Nd, Ho, Er) were hydrothermally synthesized and characterized. These Cd–Ln complexes are difficult to synthesize because of the high coordination ability of cadmium(II) and are rarely reported. Meanwhile, the six complexes show peculiar emission bands in the visible region and in the NIR region because of their heterodinuclear nature.

Carbene Analogues from Dianions



Spiro-diazasilole (germole) adducts were observed in reactions of dilithium salts of silole and germole dianions with *N*,*N*-di-*tert*-butylethylenediimine in THF at room temperature. Proposed mechanism of the reaction includes metallation of *N*,*N′*-di-*tert*-butylethylenediimine and formation of intermediate silylene and germylene

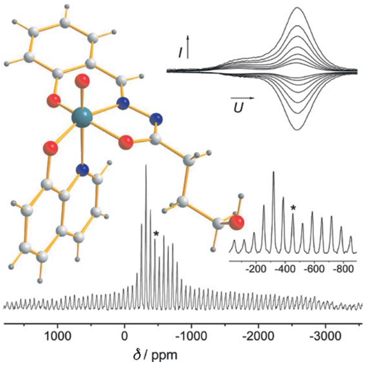
I. S. Toulokhonova, V. I. Timokhin,
D. N. Bunck, I. Guzei, R. West,*
T. Műller* 2344–2349

Silylene and Germylene Intermediates in the Reactions of Silole and Germole Dianions with *N*,*N′*-Di-*tert*-butylethylenediimine

Keywords: Silole dianion / Germole dianion / *N*,*N′*-Di-*tert*-butylethylenediimine / Silylene / Germylene / Metallation

Mixed-Ligand Vanadium Complexes

Mixed-ligand oxidovanadium(V) complexes with side-chain functionalized Schiff-base ligands and 8-hydroxyquinoline have been synthesized. Their electrochemistry as well as their solid-state NMR spectra have been investigated.



S. Nica, A. Buchholz, M. Rudolph,
A. Schweitzer, M. Wächtler, H. Breitzke,
G. Buntkowsky, W. Plass* 2350–2359

Mixed-Ligand Oxidovanadium(V) Complexes with *N′*-Salicylidenehydrazides: Synthesis, Structure, and ^{51}V Solid-State MAS NMR Investigation

Keywords: 8-Hydroxyquinoline / Schiff bases / Square-wave voltammetry / Vanadium / ^{51}V NMR spectroscopy