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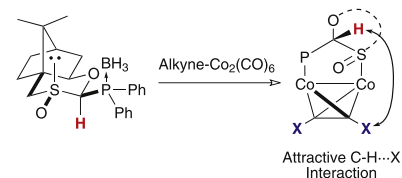
COMMUNICATION

**Jordi Solà, Antoni Riera,
Xavier Verdaguer**

J. Organomet. Chem. 695 (2010) 2377

A new bidentate P,S(O) ligand, that combines a stereogenic sulfur atom and the camphor scaffold is reported. The

coordination properties to acetylene dicobalt hexacarbonyl complexes were studied. Weak H-bonding between the ligand and the alkyne helps to stabilize a bridged coordination mode.



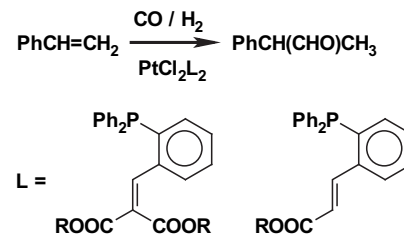
REGULAR PAPERS

**Péter Pongrácz, György Petőcz,
Megan Shaw, D. Bradley G. Williams,
László Kollár**

J. Organomet. Chem. 695 (2010) 2381

Novel PtCl₂L₂-type complexes (where L stands for 2-diphenylphosphino-benzylidene-malonate or 2-diphenylphosphino-phenyl-acrylate derivatives) were prepared

and used as catalytic precursors for the hydroformylation of styrene. It has been revealed by ³¹P NMR spectroscopy that the formation of *trans* platinum(II) complexes is highly preferred in the case of benzylidene malonate-type ligands and the mixture of *cis/trans* complexes with a predominance of the *trans* isomer was formed when acrylate-type ligands were used.

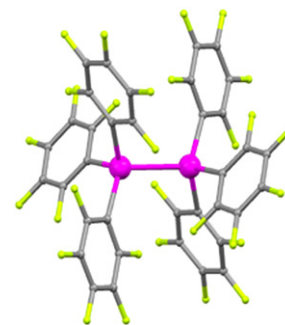


R. Vilma Bojan, José M. López-de-Luzuriaga, Miguel Monge, M. Elena Olmos

J. Organomet. Chem. 695 (2010) 2385

Tin derivatives of the types [SnR₄], [SnR₃Cl] and [SnR₃]₂ (R = C₆F₅, C₆F₃Cl₂, C₆Cl₅) have been synthesized. The later can act as arylating agents toward gold(I) derivatives, such as [AuCl(PPh₃)] or [(AuCl)₂(μ-dppm)], which afford the neutral species [AuR-

(PPh₃)], [(AuR)₂(μ-dppm)] or the ionic product [Au₃Cl₂(μ-dppm)₂][Sn(C₆F₅)₃Cl₂].

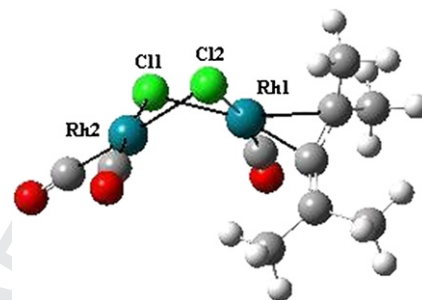


**Feng Gao, Chuanzhao Li,
Effendi Widjaja, Chacko Jacob,
Marc Garland**

J. Organomet. Chem. 695 (2010) 2394

In-situ spectroscopies, spectral reconstruction and DFT were applied to the reactions of $\text{Rh}_2(\text{CO})_4\text{Cl}_2$ with 1,5-cyclooctadiene (COD) and tetramethylallene (TMA). The pure component spectra of a known diene complex $\text{Rh}_2(\text{CO})_2\text{Cl}_2(\eta^4\text{-C}_8\text{H}_{12})$ and a new allene complex $\text{Rh}_2(\text{CO})_3\text{Cl}_2(\eta^2\text{-C}_7\text{H}_{12})$ were

reconstructed in MIR/FIR regions and their optimized geometries were obtained by DFT calculations.

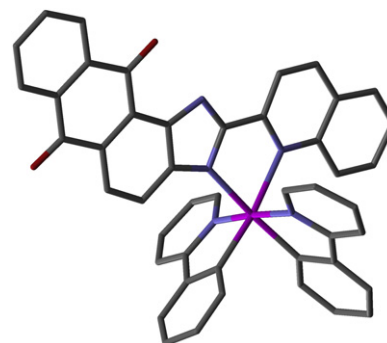


**Andrew J. Hallett, Benjamin D. Ward,
Benson M. Kariuki, Simon J.A. Pope**

J. Organomet. Chem. 695 (2010) 2401

Aromatic aldehydes can be condensed with 1,2-diaminoanthraquinone to yield a series of donor appended anthra[1,2d]imidazole-6,11-dione ligands which can be coordinated to Ir(III) giving either cationic or neutral complexes. Generally, the resultant complexes are emissive with either ligand-centred luminescence or long-lived $^3\text{MLCT}$

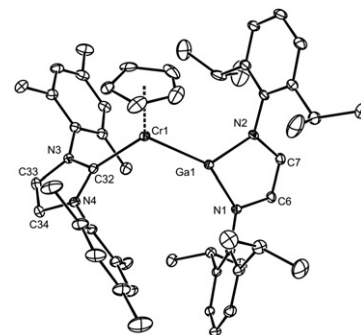
emission depending on the nature of the complex.



**Cameron Jones, David P. Mills, Richard
P. Rose, Andreas Stasch, William
D. Woodul**

J. Organomet. Chem. 695 (2010) 2410

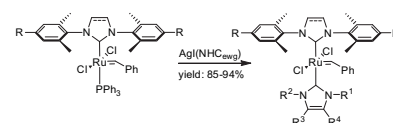
A variety of groups 6–9 and 11 metal gallyl complexes have been prepared and structurally characterized (e.g. see picture). Further reactivity studies have shown that a copper(I) gallyl compound displays very different reactivity towards unsaturated substrates than do related copper(I) boryl species.



Stefanie Wolf, Herbert Plenio

J. Organomet. Chem. 695 (2010) 2418

A facilitated synthesis of $(\text{NHC})(\text{NHC}_{\text{ewg}})\text{-RuCl}_2(\text{CHPh})$ complexes is reported – which does not rely on PCy_3 or PCy_3 containing intermediates.

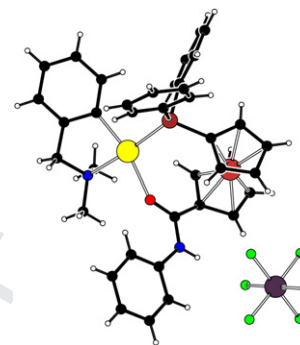


**Petr Štěpnička, Hana Solarová,
Martin Lamač, Ivana Cisarová**

J. Organomet. Chem. 695 (2010) 2423

In situ generated Ph_2PfcLi (fc = ferrocene-1,1'-diyl) reacts with isocyanates RNCO (R = cyclohexyl or phenyl) to afford the corresponding carboxamides $\text{Ph}_2\text{PfcCONHR}$. The series of Pd(II) and Pt(II) complexes prepared from $\text{Ph}_2\text{PfcCONHPh}$, viz *trans*- $[\text{MCl}_2(\text{L-}\kappa\text{P})_2]$ (M = Pd, Pt), *cis*- $[\text{PtCl}_2(\text{L-}\kappa\text{P})_2]$, $[(\text{L}^{\text{NC}})\text{PdCl}(\text{L-}\kappa\text{P})]$, and $[(\text{L}^{\text{NC}})\text{Pd}(\text{L-}\kappa^2\text{O,P})]\text{SbF}_6$ (see figure), demonstrates

the ability of the amidophosphines to coordinate as both the P-monodentate or O,P-chelating donors.

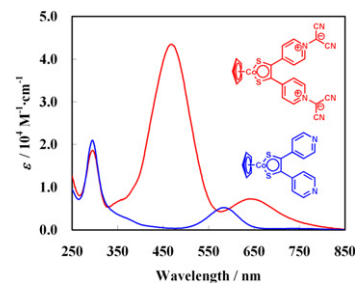


**Mitsushiro Nomura, Mami Kanamori,
Naoki Tateno, Chikako Fujita-Takayama,
Toru Sugiyama, Masatsugu Kajitani**

J. Organomet. Chem. 695 (2010) 2432

The reaction of $[\text{CpCo}(\text{S}_2\text{C}_2(^4\text{Py})_2)]$ (**1**) with TCNEO formed both the monodicyanomethylated $[\text{CpCo}(\text{S}_2\text{C}_2(^4\text{Py})(^4\text{Py}-\text{C}(\text{CN})_2)]$ (**1a**) and bisdicyanomethylated $[\text{CpCo}(\text{S}_2\text{C}_2(^4\text{Py}-\text{C}(\text{CN})_2)_2)]$ (**1b**). The all dicyanomethylated $[\text{CpCo}(\text{dithiolene})]$ complexes showed the dithiolene LMCT

absorption in the range of 605–644 nm ($\epsilon = 7000\text{--}9200 \text{ M}^{-1} \text{ cm}^{-1}$) and very strong absorption due to their pyridinium-dicyanomethylidene moieties in near-UV region (e.g. **1b**: $\lambda_{\text{max}} = 470 \text{ nm}$, $\epsilon = 43,400 \text{ M}^{-1} \text{ cm}^{-1}$). The electrochemically generated **1b⁻** is stable enough for several minutes according to visible spectroelectrochemical measurement. The ESR spectrum of **1b⁻** indicated eight hyperfine splittings due only to the interaction with the nuclear spin of cobalt ($I = 7/2$).

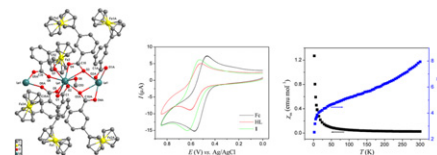


**Bin-Qiu Liu, Peng-Fei Yan,
Ju-Wen Zhang, Peng Chen,
Guang-Ming Li**

J. Organomet. Chem. 695 (2010) 2441

A series of *m*-ferrocenylbenzoate [*m*-ferrocenylbenzoate = *m*- $\text{NaOOCCH}_4\text{C}_6\text{Fc}$, $\text{Fc} = (\eta^5\text{-C}_5\text{H}_5)\text{Fe}(\eta^5\text{-C}_5\text{H}_4)$] lanthanide

coordination polymers $[\text{Ln}(\mu_2\text{-OOCH}_4\text{C}_6\text{Fc})(\eta^2\text{-OOCH}_4\text{C}_6\text{Fc})(\mu_2\text{-}\eta^2\text{-OOCH}_4\text{C}_6\text{Fc})(\text{CH}_3\text{-OH})_2]_n$ [Ln = La (**1**), Pr (**2**), Nd (**3**), Sm (**4**) and Gd (**5**)] have been synthesized and structurally characterized. The electrochemical properties of **1–5** and magnetic properties of **5** have been investigated.

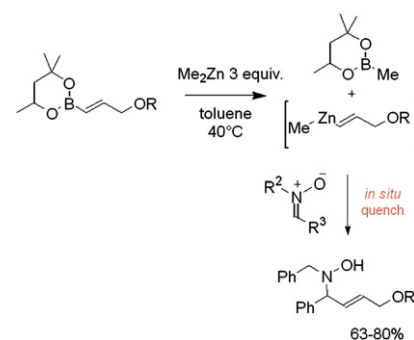


**Nageswaran PraveenGanesh, Cristina de
Candia, Antony Memboeuf,
György Lendvay, Yves Gimbert, Pierre
Y. Chavant**

J. Organomet. Chem. 695 (2010) 2447

Vinylboronic esters derived from 4,4,6-trimethyl-[1,3,2]dioxaborinane react with nitrones in the presence of dimethylzinc; nucleophilic addition of the vinyl group onto nitrones produces *N*-allylic hydroxylamines in fair yields. The sequence is compatible with various functional groups

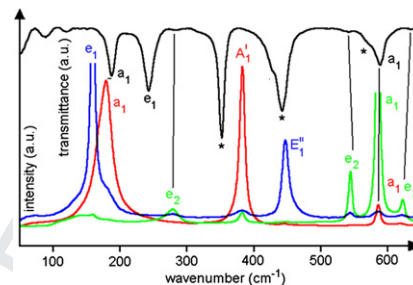
on the vinylic moiety. The mechanism and kinetic aspects are discussed on the basis of DFT calculations.



**Hanns-Dieter Amberger,
Hauke Reddmann**

J. Organomet. Chem. 695 (2010) 2455

On the basis of Raman spectroscopic polarization measurements of oriented single crystals of $\text{Ru}(\eta^5\text{-C}_5\text{Me}_5)_2$ and FIR/MIR spectra of pellets, intra-ligand and skeletal modes could be separated and assigned to irreducible representations.

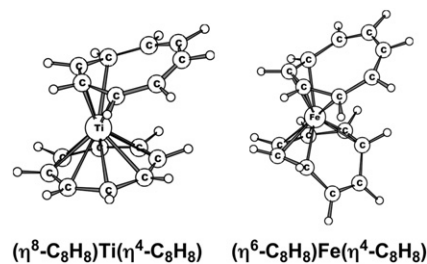


**Hao Feng, Hongyan Wang, Yaoming Xie,
R. Bruce King, Henry F. Schaefer, III**

J. Organomet. Chem. 695 (2010) 2461

Density functional theory studies on $(\text{C}_8\text{H}_8)_2\text{M}$ sandwich compounds suggest that $(\eta^8\text{-C}_8\text{H}_8)\text{M}(\eta^4\text{-C}_8\text{H}_8)$ structures are preferred for Ti, V, and Cr and $(\eta^6\text{-C}_8\text{H}_8)\text{M}(\eta^4\text{-C}_8\text{H}_8)$ structures are preferred for Mn and Fe. The preferred structures for Co and

Ni are $(\eta^4\text{-C}_8\text{H}_8)\text{Co}(\eta^{2,2}\text{-C}_8\text{H}_8)$ and $(\eta^3\text{-C}_8\text{H}_8)_2\text{Ni}$, respectively. In all cases the metal atom has a 16-, 17-, or 18-electron configuration.



**Javier Sánchez-Nieves,
Vanessa Tabernero, Claudimar Camejo,
Pascual Royo**

J. Organomet. Chem. 695 (2010) 2469

Niobium compounds of the type $[\text{NbCp}^*\text{Me}_3(\text{OR})]$ were obtained by reaction of $[\text{NbCp}^*\text{Me}_4]$ with ROH. Abstraction of a methyl group with $\text{E}(\text{C}_6\text{F}_5)_3$ (E = B, Al)

formed the cationic complexes $[\text{NbCp}^*\text{Me}_2\text{X}]^+$ (X = Me, OR). The analogous tantalum derivative $[\text{TaCp}^*\text{Me}(\text{OR})_2]^+$ was obtained by a similar reaction with $[\text{TaCp}^*\text{Me}_2(\text{OR})_2]$. Methylmethacrylate polymerization was studied in the presence of these new neutral complexes with $\text{E}(\text{C}_6\text{F}_5)_3$ (E = B, Al) as cocatalysts.

