

## Contents

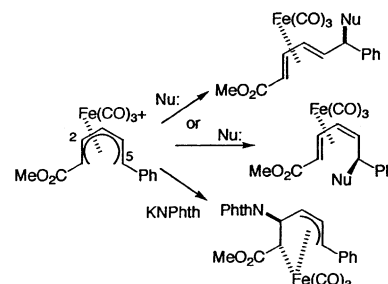
### Communication

**Subhabrata Chaudhury,  
William A. Donaldson, Dennis W. Bennett,  
Daniel T. Haworth, Tasneem A. Siddiquee,  
Jennifer M. Kloss**

*J. Organomet. Chem. 689 (2004) 1437*

Synthesis and reactivity of tricarbonyl(1-methoxycarbonyl-5-phenylpentadienyl)iron-(1+) cation

The reaction of the title cation with carbon and heteroatom nucleophiles was examined. In general, the products arise from nucleophilic attack at C5 to give *E,E*- or *E,Z*-dienoate iron complexes. Addition of phthalimide anion proceeds at C2 of the cation to afford a (pentenediyl)iron complex, whose structure was confirmed by X-ray diffraction analysis.



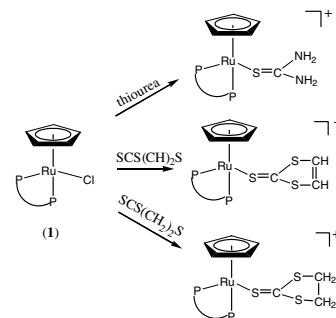
### Regular papers

**Xiu Lian Lu, Jagadese J. Vittal,  
Edward R.T. Tiekink, Lai Yoong Goh,  
T.S. Andy Hor**

*J. Organomet. Chem. 689 (2004) 1444*

Chloride substitution of [CpRu(dppf)Cl] with sulfur-containing ligands

The S-containing ligands, thiourea, 2 mercaptopyridine, ethylene and vinylene trithiocarbonates, readily displace the chloride ligand in CpRu(dppf)Cl to give S-bonded complexes.

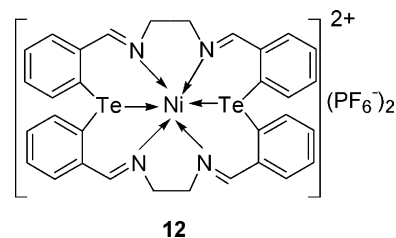


**Saija C. Menon, Arunashree Panda,  
Harkesh B. Singh, Rajan P. Patel,  
Shailendra K. Kulshreshtha, Willie L. Darby,  
Ray J. Butcher**

*J. Organomet. Chem. 689 (2004) 1452*

Tellurium azamacrocycles: synthesis, characterization and coordination studies

The metal-free condensation of bis(*o*-formylphenyl)telluride with a series of diamines affords macrocyclic tellurium ligands. The reaction of macrocyclic Schiff base **2** with Pd(II)/Ni(II) metal ions followed by NH<sub>4</sub>PF<sub>6</sub> addition gives the corresponding 1:1 cationic complexes whereas, reaction with Pt(II) proceeds via novel transmetallation.

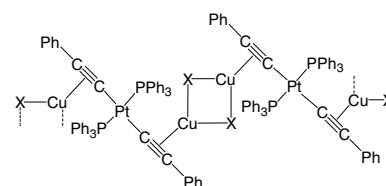


**H. Lang, A. del Villar, B. Walfort,  
G. Rheinwald**

*J. Organomet. Chem.* 689 (2004) 1464

Synthese und Reaktionsverhalten von Platin(II) und Kupfer(I) Koordinationspolymeren; die Festkörperstruktur von  $\{trans-(Ph_3P)_2Pt[(\eta^2-C\equiv CPh)CuBr]_2\}_n$  und  $trans-(Ph_3P)_2Pt[(\eta^2-C\equiv CPh)CuNO_3]_2$

The synthesis of the coordination polymer  $\{trans-(Ph_3P)_2Pt[(\eta^2-C\equiv CPh)CuX]_2\}_n$  (**3a**, X = Cl; **3b**, X = Br) and its reaction towards bipy and  $[AgNO_3]$  is described. The solid-state structures of **3b** and  $trans-(Ph_3P)_2Pt[(\eta^2-C\equiv CPh)CuNO_3]_2$  are reported as well.

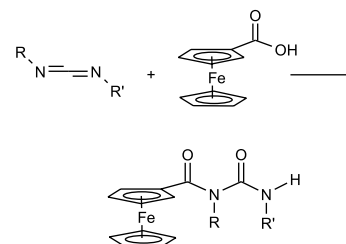


**Bernd Schetter, Bernd Speiser**

*J. Organomet. Chem.* 689 (2004) 1472

Reaction of ferrocenecarboxylic acid with  $N,N'$ -disubstituted carbodiimides: synthesis, spectroscopic and X-ray crystallographic analysis of  $N,N'$ -disubstituted  $N$ -ferrocenoylureas and identification of a one-pot coupling reagent for the formation of ferrocenecarboxamides in a non-aqueous solvent

$N,N'$ -dicyclohexyl- $N$ -ferrocenoylurea **2**,  $N,N'$ -diisopropyl- $N$ -ferrocenoylurea **3**,  $N,N'$ -di-*p*-tolyl- $N$ -ferrocenoylurea **4** and  $N,N'$ -di-*tert*-butyl- $N$ -ferrocenoylurea **5** were obtained by reaction of ferrocenecarboxylic acid **1** with  $N,N'$ -dicyclohexylcarbodiimide (DCC),  $N,N'$ -diisopropylcarbodiimide (DIC),  $N,N'$ -di-*p*-tolylcarbodiimide **10** and  $N,N'$ -di-*tert*-butylcarbodiimide **11**, respectively.

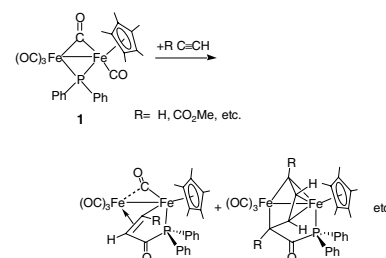


**Hisako Hashimoto, Kazuyoshi Kurashima,  
Hiromi Tobita, Hiroshi Ogino**

*J. Organomet. Chem.* 689 (2004) 1481

Reactions of a phosphido-bridged unsymmetrical diiron complex  $(\eta^5-C_5Me_5)Fe_2(CO)_4(\mu-CO)(\mu-PPH_2)$  with various alkynes

The phosphido-bridged unsymmetrical diiron complex  $(\eta^5-C_5Me_5)Fe_2(CO)_4(\mu-CO)(\mu-PPH_2)$  (**1**) was prepared by a new method. The reactions of **1** with various terminal alkynes  $RC\equiv CH$  (R = *t*Bu, H,  $CO_2Me$ , Ph) afforded complexes containing a ketoalkenyl or phosphinoketoalkenyl ligand on incorporating one or two molecules of alkynes and a carbonyl group as a result of C–C bond and P–C bond coupling.

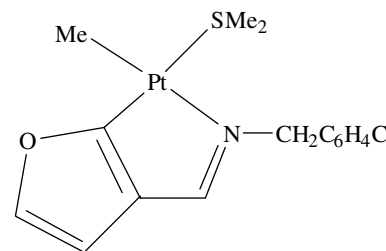


**Craig Anderson, Margarita Crespo**

*J. Organomet. Chem.* 689 (2004) 1496

Cyclometallated platinum complexes with heterocyclic ligands

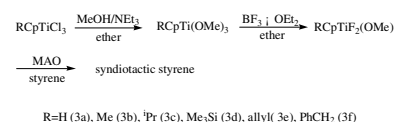
The reactions of  $[Pt_2Me_4(\mu-SMe_2)_2]$  with imine ligands that contain furane rings gave orthometallated platinum (II) complexes. The oxidative addition reactions of the orthometallated complexes with methyl iodide as well as the complexes' reactions with triphenylphosphine are also reported.



**Xianmiao Qian, Jiling Huang, Yanlong Qian***J. Organomet. Chem.* 689 (2004) 1503

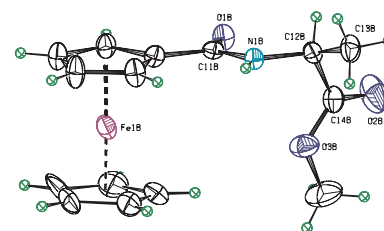
Synthesis of new substituted cyclopentadienyl titanium monomethoxydifluorides with  $\text{BF}_3 \cdot \text{OEt}_2$  as fluorinating reagent and their use in syndiotactic polymerization of styrene

Six new substituted cyclopentadienyl titanium monomethoxydifluoride complexes  $\text{RCpTiF}_2(\text{OMe})$  ( $\text{R}=\text{H}$  (**3a**), Me (**3b**),  $^i\text{Pr}$  (**3c**),  $\text{Me}_3\text{Si}$  (**3d**), allyl (**3e**),  $\text{PhCH}_2$  (**3f**)) were prepared. When activated with methylaluminoxane (MAO), they can catalyze the syndiotactic polymerization of styrene. The obtained polymer exhibits higher Mw and melting point than those by  $\text{RCpTi}(\text{OMe})_3$ , and the syndiotacticity is in the range 92.4–97.6%.

**Michael J. Sheehy, John F. Gallagher, Mashita Yamashita, Yoshiteru Ida, Jennifer White-Colangelo, Jeremi Johnson, Ron Orlando, Peter T.M. Kenny***J. Organomet. Chem.* 689 (2004) 1511

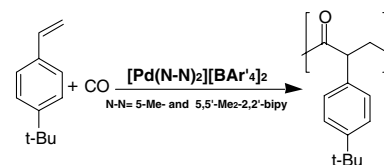
Synthesis and structural characterisation of redox-responsive *N*-ferrocenoyl amino acid esters; the X-ray crystal structure of *N*-ferrocenoyl alanine methyl ester; electrochemical anion recognition and  $^1\text{H}$  NMR complexation studies

*N*-Ferrocenoyl amino acid ester derivatives were prepared by coupling ferrocene carboxylic acid with the appropriate amino acid esters using the 1,3-dicyclohexylcarbodiimide (DCC), 1-hydroxybenzotriazole (HOBT) protocol. The electrochemical anion sensing behaviour of the derivatives with several anions is described, together with  $^1\text{H}$  NMR anion complexation studies. The X-ray single crystal structure of *N*-ferrocenoyl-L-alanine methyl ester has been determined.

**Barbara Soro, Sergio Stoccoro, Maria Agostina Cinellu, Giovanni Minghetti, Antonio Zucca, Amaia Bastero, Carmen Claver***J. Organomet. Chem.* 689 (2004) 1521

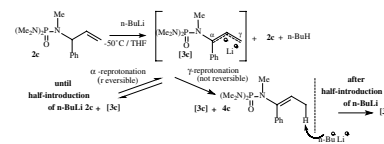
Effect of 5-Me substituent(s) on the catalytic activity of palladium(II) 2,2'-bipyridine complexes in  $\text{CO}/4$ -*tert*-butylstyrene copolymerization

The coordination of two 5-substituted-2,2'-bipyridines  $\text{L}$  ( $\text{L}^1 = 5$ -methyl-2,2'-bipyridine,  $\text{L}^2 = 5,5'$ -dimethyl-2,2'-bipyridine) to palladium has been studied. The neutral complexes  $[\text{Pd}(\text{L})\text{Cl}_2]$  and  $[\text{Pd}(\text{L})(\text{Me})\text{Cl}]$ , and the cationic species  $[\text{Pd}(\text{L})_2][\text{BAR}'_4]_2$  and  $[\text{Pd}(\text{L})(\text{Me})(\text{NCMe})][\text{BAR}'_4]$  ( $\text{Ar}' = 3,5$ - $(\text{CF}_3)_2\text{-C}_6\text{H}_3$ ), have been isolated and characterized. The activity of the new complexes as catalytic precursors in the  $\text{CO}/4$ -*tert*-butylstyrene copolymerization has been investigated.

**Claude Grison, Antoine Thomas, Frédéric Coutrot, Philippe Coutrot***J. Organomet. Chem.* 689 (2004) 1530

Lithiated anions derived from (alkenyl)-pentamethyl phosphoric triamides: an accurate study of the carbanion formation mechanism

A reaction between the ambident carbanion formed and the starting enephosphoramid occurred via a reversible  $\alpha$ -reprotonation and a not reversible  $\gamma$ -reprotonation. A such autocatalytic process led partially to the transposed allylphosphoramid isomer. Adapted experimental conditions avoided the autocatalytic process and allowed the preparation of the lithiated anions in good yields.

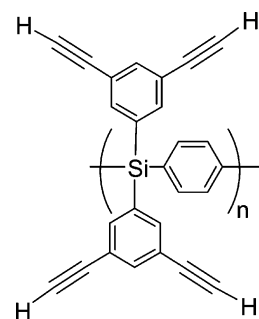


**Joji Ohshita, Toshiyuki Iida, Masaru Ikeda, Taisuke Uemura, Nobuaki Ohta, Atsutaka Kunai**

*J. Organomet. Chem.* 689 (2004) 1540

Synthesis of poly{[bis(diethynylphenyl)silylene]phenylene}s with highly heat-resistant properties and an application to conducting materials

Poly{[bis(3,5-diethynylphenyl)silylene]-*p*-phenylene} whose TGA showed extremely high heat-resistance in N<sub>2</sub> (Td<sub>5</sub> = 791 °C, weight loss at 1000 °C = 6%), was prepared. When a polymer film on a quartz plate was heated at 1200 °C, a conducting film (9 S/cm) was obtained.

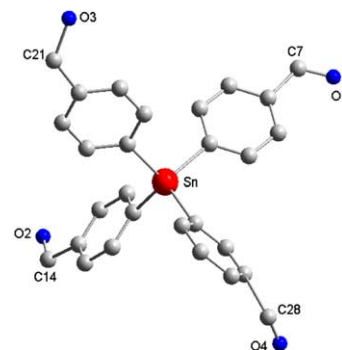


**Michael Veith, Andreas Rammo, Christian Kirsch, Lucie Khemtémourian, Dominique Agustin**

*J. Organomet. Chem.* 689 (2004) 1546

Functionalised tetraarylstannanes Sn[C<sub>6</sub>H<sub>4</sub>-R]<sub>4</sub> (R = -CH(CH<sub>2</sub>O)<sub>2</sub>, -CH=O, -COOH, -CH≡N-NH-C<sub>6</sub>H<sub>3</sub>-2,4-(NO<sub>2</sub>)<sub>2</sub>, -CH<sub>2</sub>OH, -CO-NH-CH<sub>2</sub>-COO-CH<sub>3</sub>, -CH[N-(C<sub>2</sub>H<sub>4</sub>)<sub>2</sub>O]<sub>2</sub>)

Tetraarylstannanes Sn[C<sub>6</sub>H<sub>4</sub>-R]<sub>4</sub> carrying functional organic groups in *para* position were synthesised. All compounds (3–8) were characterised by spectroscopic means (heteronuclear NMR) or by X-ray structure determination (3). <sup>119</sup>Sn NMR spectroscopy has been evaluated as a labelling tool by docking the tin moiety to amino acids.

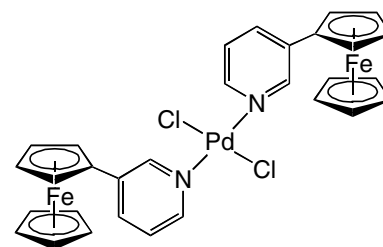


**Jaisheila Rajput, John R. Moss, Alan T. Hutton, Denver T. Hendricks, Catherine E. Arendse, Christopher Imrie**

*J. Organomet. Chem.* 689 (2004) 1553

Synthesis, characterization and cytotoxicity of some palladium(II), platinum(II), rhodium(I) and iridium(I) complexes of ferrocenylpyridine and related ligands. Crystal and molecular structure of *trans*-dichlorobis(3-ferrocenylpyridine)palladium(II)

The preparation of a series of ferrocenyl nitrogen donor ligands including ferrocenylpyridines, ferrocenylphenylpyridines and 1,1'-di(2-pyridyl)-ferrocene is described. Coordination studies of the substituted pyridines were carried out with the platinum group metals and the cytotoxicity of a selection of the complexes was investigated.

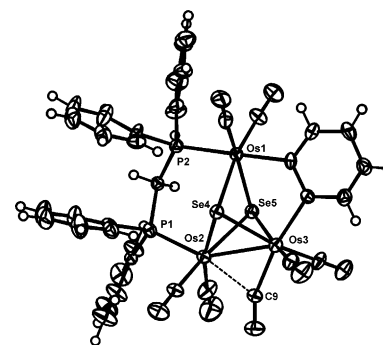


**Shariff E. Kabir, Noorjahan Begum, Md. Manjur Hassan, Md. Iqbal Hyder, Hani Nur, Dennis W. Bennett, Tasneem A. Siddiquee, Daniel T. Haworth, Edward Rosenberg**

*J. Organomet. Chem.* 689 (2004) 1569

Addition of diphenyl diselenide (PhSeSePh) to the clusters [Os<sub>3</sub>(CO)<sub>10</sub>(μ-dppm)] and [(μ-H)Os<sub>3</sub>(CO)<sub>8</sub>{Ph<sub>2</sub>PCH<sub>2</sub>P(Ph)<sub>2</sub>C<sub>6</sub>H<sub>4</sub>}]: X-ray structures of [Os<sub>2</sub>(CO)<sub>4</sub>(μ-SePh)<sub>2</sub>(μ-dppm)], [Os<sub>3</sub>(CO)<sub>6</sub>(μ-CO)(μ-Se)<sub>2</sub>(μ-C<sub>6</sub>H<sub>4</sub>)(μ-dppm)] and two isomers of [Os<sub>3</sub>(CO)<sub>8</sub>(μ-SePh)<sub>2</sub>(μ-dppm)]

The reactions of PhSeSePh with the electron precise cluster [Os<sub>3</sub>(CO)<sub>10</sub>(μ-dppm)] (4) and with the electronically unsaturated [(μ-H)Os<sub>3</sub>(CO)<sub>8</sub>{Ph<sub>2</sub>PCH<sub>2</sub>P(Ph)<sub>2</sub>C<sub>6</sub>H<sub>4</sub>}] (11) have been studied. In both cases a related series of compounds are obtained that illustrate the stepwise processes leading to Se–Se and Se–C bond cleavage. As previously noted the dppm ligand helps to maintain cluster integrity and gives a clearer picture of the activation of chalcogenide compounds at trinuclear sites.

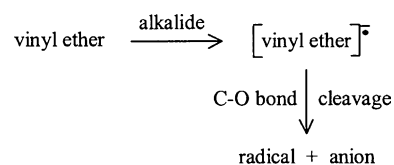


Zbigniew Grobelny, Andrzej Stolarzewicz,  
Adalbert Maercker, Stanisław Krompiec,  
Janusz Kasperczyk, Józef Rzepa

*J. Organomet. Chem.* 689 (2004) 1580

Decomposition of vinyl ethers by alkali-  
de  $K^+$ ,  $K^+(15\text{-crown-5})_2$  via organopotassium  
intermediates

The structure of vinyl ethers determines the  
direction of the C–O bond cleavage by al-  
kali- $K^+$ ,  $K^+(15\text{-crown-5})_2$  **1**. Highly re-  
active organopotassium compounds are  
intermediate products formed in the system  
containing phenyl vinyl ether, butyl vinyl  
ether, ethylene glycol butyl vinyl ether or  
triethylene glycol methyl vinyl ether.

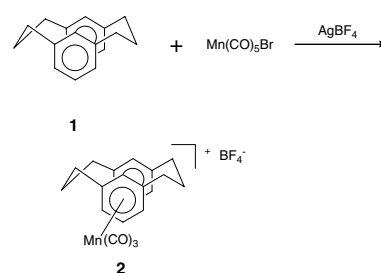


Youngjin Kang, Taegweon Lee, Chul Baik,  
Soon W. Lee, Sang Ook Kang,  
Teruo Shinmyozu, Jaejung Ko

*J. Organomet. Chem.* 689 (2004) 1586

Synthesis and reactivity of  $[(\eta^6\text{-}[3_2]\text{-}(1,3)\text{cyclophane})\text{Mn}(\text{CO})_3][\text{BF}_4]$

The manganese cyclophane complex,  $[(\eta^6\text{-}[3_2]\text{-}(1,3)\text{cyclophane})\text{Mn}(\text{CO})_3][\text{BF}_4]$  **2**, was prepared by the reaction of  $[(\eta^6\text{-}[3_2]\text{-}(1,3)\text{cyclophane})]$  **1** with  $\text{Mn}(\text{CO})_5\text{FBF}_3$ .

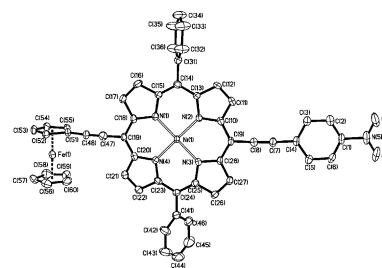


Ka-Lok Cheng, Hung-Wing Li,  
Dennis K.P. Ng

*J. Organomet. Chem.* 689 (2004) 1593

Synthesis and characterization of *meso*-  
ferrocenylethynyl 5,15-diphenylporphyrins

A series of four *meso*-ferrocenylethynyl  
(5,15-diphenylporphyrinato)nickel(II) de-  
rivatives have been synthesized by Sono-  
shira coupling reactions and characterized by  
spectroscopic methods and X-ray diffraction  
analysis (for compound **11**). The studies  
show that although the ferrocenylethynyl  
group can extend the  $\pi$  system of the central  
porphyrin core, the cyclopentadienyl rings of  
ferrocene are almost orthogonal to the por-  
phyrin ring. This hinders ferrocene serving as  
a good electron donor in these systems.

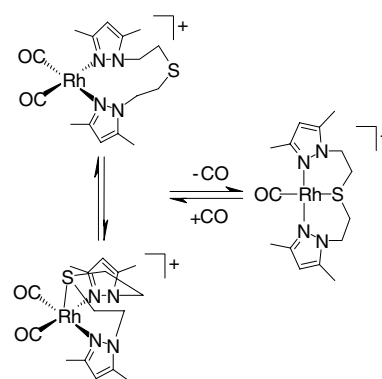


Jordi García-Antón, René Mathieu,  
Noël Lugan, Josefina Pons Picart,  
Josep Ros

*J. Organomet. Chem.* 689 (2004) 1599

Coordination properties of  $\text{N}_2\text{S}$  (1,5-bis(3,5-  
dimethyl-1-pyrazolyl)-3-thiapentane) or  $\text{N}_2\text{S}_2$   
(1,8-bis(3,5-dimethyl-1-pyrazolyl)-3,6-dithiaoctane  
or 1,2-bis[3-(3,5-dimethyl-1-pyrazolyl)-2-  
thiapropyl]benzene) donor ligands toward  
 $\text{Rh}(\text{I})$

$\text{Rh}(\text{I})$  complexes of NSN ligand 1,5-bis(3,5-  
dimethyl-1-pyrazolyl)-3-thiapentane (*bdtip*)  
have been synthesized and characterized and  
show hemilabile properties. However, the  
 $\text{Rh}(\text{I})$  complexes with NSSN ligands 2-bis[3-  
(3,5-dimethyl-1-pyrazolyl)-2-thiapropyl]ben-  
zene (*bddf*) and 1,8-bis(3,5-dimethyl-1-py-  
razolyl)-3,6-dithiaoctane (*bddo*) do not show  
hemilabile properties. Variable temperature  
NMR experiments and X-ray crystal  
structures of  $[\text{Rh}(\text{CO})(\text{bdtip})](\text{CF}_3\text{SO}_3)$ ,  
 $[\text{Rh}_2(\text{cod})_2(\text{bddo})](\text{BF}_4)_2$  and  $[\text{Rh}_2(\text{CO})_4\text{-}$   
(*bddo*)]( $\text{BF}_4$ ) $_2$ .

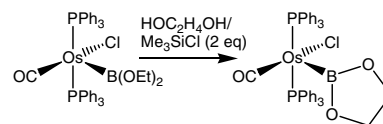


Clifton E.F. Rickard, Warren R. Roper,  
Alex Williamson, L. James Wright

*J. Organomet. Chem.* 689 (2004) 1609

Exchange of boryl ligand substituents in  
 $\text{Os}[\text{B}(\text{OEt})_2]\text{Cl}(\text{CO})(\text{PPh}_3)_2$

The OEt groups in the boryl ligand of  $\text{Os}[\text{B}(\text{OEt})_2]\text{Cl}(\text{CO})(\text{PPh}_3)_2$  undergo exchange reactions with 1,2-ethanediol and 1,3-propanediol in the presence of  $\text{Me}_3\text{SiCl}$ . Crystal structure determinations of the resulting products are revealing of the nature of the Os–B bond.

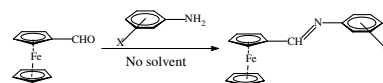


Christopher Imrie, Vincent O. Nyamori,  
Thomas I.A. Gerber

*J. Organomet. Chem.* 689 (2004) 1617

Solvent-free synthesis of ferrocenylimines

A simple, convenient and environmentally sound method for the synthesis of ferrocenylimines is described involving the solvent-free mixing of substituted anilines and ferrocenylaldehydes. The yields obtained were very high and purification was achieved by cold recrystallization from methanol.

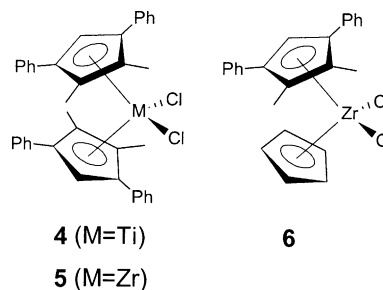


Jiří Pinkas, Michal Horáček, Jiří Kubišta,  
Róbert Gyepes, Ivana Císařová, Nadine Pirio,  
Philippe Meunier, Karel Mach

*J. Organomet. Chem.* 689 (2004) 1623

Titanium and zirconium complexes containing the new 2,3-dimethyl-1,4-diphenylcyclopentadienyl ligand. Synthesis, characterization and polymerization behavior

New titanium and zirconium metallocene dichlorides comprising 2,3-dimethyl-1,4-diphenylcyclopentadienyl ligand have been prepared, characterized and in combination with methylalumoxane tested for polymerization of ethene. While the titanium complex **4** was inactive the zirconium complex **5** and **6** showed moderate and high activity, respectively.

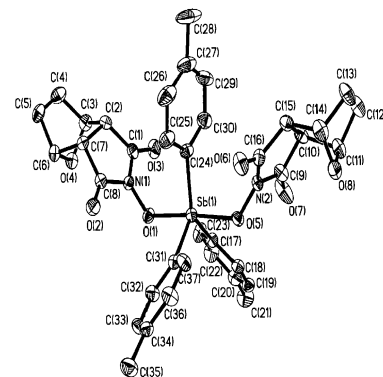


Guo-Cang Wang, Jian Xiao, Lin Yu,  
Jin-Shan Li, Jing-Rong Cui,  
Rui-Qing Wang, Fu-Xiang Ran

*J. Organomet. Chem.* 689 (2004) 1631

Synthesis, crystal structures and in vitro antitumor activities of some arylantimony derivatives of analogues of demethylcantharimide

A series of novel arylantimony derivatives of analogues of demethylcantharimide with the formulae  $\text{Ar}_n\text{SbL}_{(5-n)}$  and  $\text{Ar}_n\text{SbL}'_{(5-n)}$  were synthesized. The crystal structures of  $(\text{C}_6\text{H}_5)_4\text{SbL}$ ,  $(4\text{-CH}_3\text{C}_6\text{H}_4)_3\text{SbL}_2$  and  $(3\text{-CH}_3\text{C}_6\text{H}_4)_3\text{SbL}'_2$  were determined by X-ray diffraction. The in vitro antitumor activities of all compounds against six cancer cells are reported.

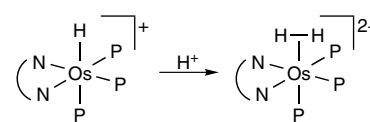


**Gabriele Albertin, Stefano Antoniutti, Sonia Pizzol**

*J. Organomet. Chem.* 689 (2004) 1639

Preparation and reactivity of osmium(II) hydride complexes with phosphites and polypyridyls

Chloro-complexes  $[\text{OsCl}(\text{N-N})\text{P}_3]\text{BPh}_4$  (**1,2**) [ $\text{N-N} = 2,2'$ -bipyridine (bpy) and 1,10-phenanthroline (phen);  $\text{P} = \text{P}(\text{OEt})_3$  and  $\text{PPh}(\text{OEt})_2$ ] were prepared by allowing  $\text{OsCl}_4(\text{N-N})$  to react with zinc dust in the presence of phosphites. Treatment of the chloro-complexes **1,2** with  $\text{NaBH}_4$  yielded, in the case of bpy, the hydride  $[\text{OsH}(\text{bpy})\text{P}_3]\text{BPh}_4$  (**4**) derivatives.



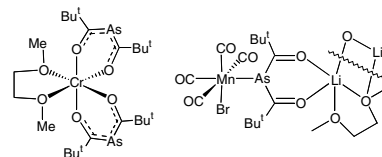
$\text{N-N} = 2,2'$ -bipyridine  
 $\text{P} = \text{phosphite}$

**Cameron Jones, Thomas C. Williams**

*J. Organomet. Chem.* 689 (2004) 1648

Reactions of 2-arsa- and 2-stiba-1,3-dionato lithium complexes with group 4–7 metal halides

The reactions of 2-arsa- and 2-stiba-1,3-dionato lithium complexes with group 4–7 metals have been investigated. These have given rise to complexes in which the arsadionate,  $[\text{OC}(\text{Bu}')\text{AsC}(\text{Bu}')\text{CO}]^-$ , acts in either an  $\eta^2\text{-O,O-}$  or  $\eta^1\text{-As-}$  ligating mode. Several metal mediated arsadionate decomposition reactions are also reported to give a range of products, including the known arsaalkyne tetramer,  $\text{As}_4\text{C}_4\text{Bu}'_4$ . The X-ray crystal structures of six of the prepared complexes are discussed.

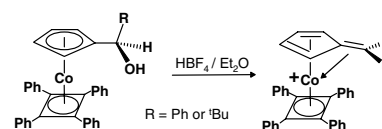


**Yannick Ortin, Kirsten Ahrenstorf, Paul O'Donohue, Daniel Foede, Helge Müller-Bunz, Patrick McArdle, Anthony R. Manning, Michael J. McGlinchey**

*J. Organomet. Chem.* 689 (2004) 1657

An NMR study of the rotational barriers in cobalt-stabilized carbocations: X-ray crystal structures of  $(\eta^4\text{-C}_4\text{Ph}_4)\text{Co}(\eta^5\text{-C}_5\text{H}_4\text{R})$ , where  $\text{R}$  is  $\text{CH}_3\text{C}=\text{O}$ ,  $\text{CH}=\text{O}$ ,  $\text{CH}(\text{Bu})\text{OH}$

Protonation of the secondary alcohols  $(\eta^4\text{-C}_4\text{Ph}_4)\text{Co}(\eta^5\text{-C}_5\text{H}_4\text{-CH}(\text{R})\text{OH})$ , where  $\text{R} = \text{tert-butyl}$  or  $\text{phenyl}$ , at  $-80^\circ\text{C}$  furnishes the deep purple, cobalt-stabilized cations which exhibit restricted rotation about the external  $\text{C}_5\text{H}_4\text{-CHR}^+$  linkage on the NMR time-scale. These data indicate a *minimum* value for the barrier to rotation of  $15\text{ kcal mol}^{-1}$ , indicating a considerable degree of C–C double bond character.

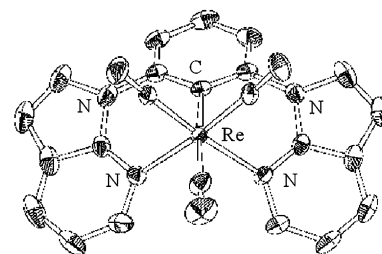


**Kazuyasu Tani, Hidehiro Sakurai, Hiroyuki Fujii, Toshikazu Hirao**

*J. Organomet. Chem.* 689 (2004) 1665

Synthesis of  $\text{Re}(\text{I})$  complexes bearing tridentate 2,6-bis(7'-azaindolyl)phenyl ligand with green emission properties

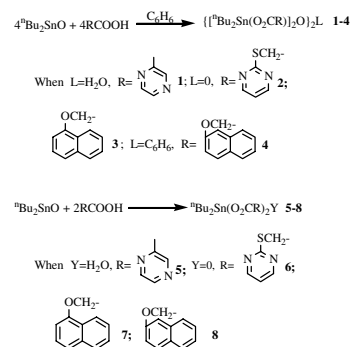
The  $\text{Re}(\text{I})$  complexes bearing 2,6-bis(7'-azaindolyl)phenyl group as a tridentate ligand were synthesized. The structures of the complexes were confirmed by X-ray crystallography. Green emission ( $\lambda_{\text{em}} = 510\text{ nm}$ ) was observed in THF solution at room temperature, which is considered to be attributable to MLCT ( $dz^2(\text{Re}) \rightarrow \pi^*$  (7'-azaindolyl group)) transition.



**Chunlin Ma, Yinfeng Han, Rufen Zhang***J. Organomet. Chem.* 689 (2004) 1675

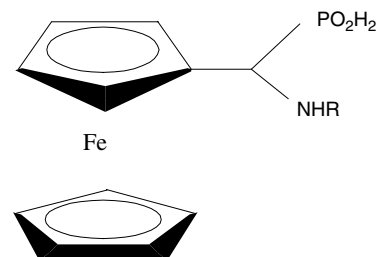
Synthesis, characterizations and crystal structures of di-*n*-butyltin(IV) complexes with heteroatomic (N, O or S) acid

Two types of di-*n*-butyltin(IV) complexes  $\{[{}^n\text{Bu}_2\text{Sn}(\text{O}_2\text{CR})_2\text{O}]_2 \cdot \text{L}\}$  **1–4** and  ${}^n\text{Bu}_2\text{Sn}(\text{O}_2\text{CR})_2\text{Y}$  **5–8** (when L = H<sub>2</sub>O, R = 2-pyrazine **1**; L = 0, R = 2-pyrimidylthiomethylene **2**, 1-naphthoxymethylene **3**; L = C<sub>6</sub>H<sub>6</sub>, R = 2-naphthoxymethylene **4**; when Y = H<sub>2</sub>O, R = 2-pyrazine **5**; Y = 0, R = 2-pyrimidylthiomethylene **6**, 1-naphthoxymethylene **7**, 2-naphthoxymethylene **8**) have been prepared in 1:1 or 1:2 molar ratios by reactions of di-*n*-butyltin oxide with the acids.

**Jarosław Lewkowski, Monika Rzeźniczak, Romuald Skowroński***J. Organomet. Chem.* 689 (2004) 1684

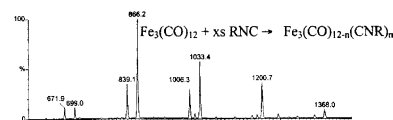
$\alpha$ -(Ferrocenyl)-aminomethanephosphonous acids. First synthesis and preparation of their esters with cholesterol and adenosine

The series of aminophosphonous acids bearing the ferrocenyl moiety was obtained by the addition of hypophosphorous acid to Schiff bases of ferrocenecarboxaldehyde. They were subsequently condensed with cholesterol and adenosine to form their cholesteryl and adenosinyl esters. The concurrence reaction of DCC with an amine nitrogen atom was observed.

**Corry Decker, William Henderson, Brian K. Nicholson***J. Organomet. Chem.* 689 (2004) 1691

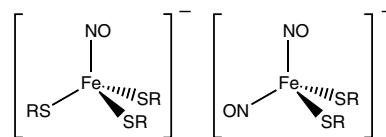
Reactions of isonitriles with  $[\text{Fe}_3(\text{CO})_{12}]$  and  $[\text{Ru}_3(\text{CO})_{12}]$  monitored by electrospray mass spectrometry: structural characterisation of  $[\text{Fe}_3(\text{CO})_{10}(\text{CNPh})_2]$  and  $[\text{Ru}_4(\text{CO})_{11}(\mu_3\text{-}\eta^2\text{-CNPh})_2(\text{CNPh})]$

The substitution reactions of  $[\text{M}_3(\text{CO})_{12}]$  by RNC have been investigated by electrospray mass spectrometry showing up to six COs can be replaced.  $[\text{Fe}_3(\text{CO})_{10}(\text{CNPh})_2]$  has both PhNC axially on the same Fe atom, and  $[\text{Ru}_4(\text{CO})_{11}(\mu_3\text{-}\eta^2\text{-CNPh})_2(\text{CNPh})]$  has a spiked-triangular cluster core with two PhNC ligands in an unusual coordination mode.

**Maria Jaworska, Zofia Stasicka***J. Organomet. Chem.* 689 (2004) 1702

Structure and UV-Vis spectroscopy of nitrosylthiolatoferrate mononuclear complexes

Density functional calculations for the  $[(\text{RS})_x\text{Fe}(\text{NO})_{4-x}]^-$  (R = CH<sub>3</sub>) compounds are carried out using the DFT method with the B3LYP functional.



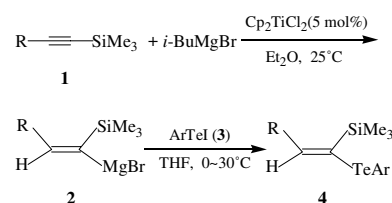


Mingzhong Cai, Wenyan Hao,  
Hong Zhao, Jun Xia

*J. Organomet. Chem.* 689 (2004) 1714

Stereoselective synthesis of (*E*)- $\alpha$ -aryltellurenylvinylsilanes via hydromagnesiation reaction of alkynylsilanes

(*E*)- $\alpha$ -Aryltellurenylvinylsilanes **4** have been synthesized stereoselectively via the hydromagnesiation of alkynylsilanes **1**, followed by the reaction with aryltellurenyl iodides **3**. (*E*)- $\alpha$ -Aryltellurenylvinylsilanes can undergo the cross coupling reaction with Grignard reagents in the presence of Ni(PPh<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub> catalyst to afford (*Z*)-1,2-disubstituted vinylsilanes in good yields.



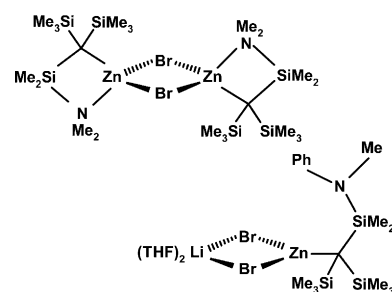
## Note

Davood Azarifar, Martyn P. Coles,  
Salima M. El-Hamruni, Colin Eaborn,  
Peter B. Hitchcock, J. David Smith

*J. Organomet. Chem.* 689 (2004) 1718

An alkylzinc bromide and a lithium alkyldibromozincate containing tris(organo-silyl)methyl groups

Reaction between the compounds LiC(SiMe<sub>3</sub>)<sub>2</sub>(SiMe<sub>2</sub>NMeR') (R' = Me or Ph) and a molar equivalent of ZnBr<sub>2</sub> gives an alkylzinc bromide or a lithium alkyldibromozincate, depending on the basicity of the amino substituent.



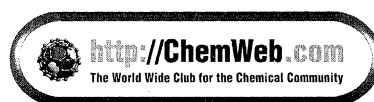
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