

## Contents

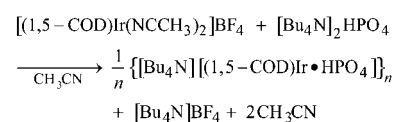
### Regular papers

**Saim Özkar, Richard G. Finke**

*J. Organomet. Chem.* 689 (2004) 493

The hydrogenphosphate complex of (1,5-cyclooctadiene)iridium(I),  $\{[\text{Bu}_4\text{N}][(\text{1,5-COD})\text{Ir} \cdot \text{HPO}_4]\}_n$ : synthesis, spectroscopic characterization, and ES-MS of a new, preferred precursor to  $\text{HPO}_4^{2-}$  and  $\text{Bu}_4\text{N}^+$  stabilized  $\text{Ir}(0)_n$  nanoclusters

The synthesis and characterization of a previously unknown, rare organometallic-phosphate complex,  $\{[\text{Bu}_4\text{N}][(\text{1,5-COD})\text{Ir} \cdot \text{HPO}_4]\}_n$  (**1**), is described. Complex **1** is significant since it is known to be the preferred, compositionally precise precursor to the prototype example of a recently discovered class of novel,  $\text{HPO}_4^{2-}$  and  $\text{Bu}_4\text{N}^+$  stabilized nanoclusters,  $(\text{Bu}_4\text{N})_{2n}^{2n+}[\text{Ir}(0)_n(\text{HPO}_4)_n]^{2n-}$ .

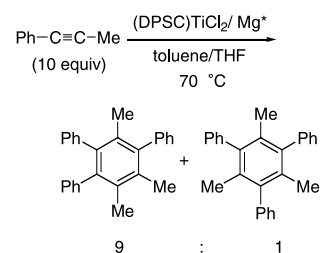


**Folami T. Ladipo, Vallipuram Sarveswaran, Jesudoss V. Kingston, Rebecca A. Huyck, Sergei Y. Bylikin, Shana D. Carr, Randy Watts, Sean Parkin**

*J. Organomet. Chem.* 689 (2004) 502

Synthesis, characterization, and alkyne cyclotrimerization chemistry of titanium complexes supported by calixarene-derived bis(aryloxy) ligation

Titananorbornadiene complex formation and catalytic alkyne cyclotrimerization occur when titanium dichloride complexes containing calix[4]arene-derived bis(aryloxy) ligands are reduced by magnesium in the presence of excess alkyne. Our results indicate that steric properties of the  $\text{R}_2\text{Si}$  bridging group of calixarene-derived bis(aryloxy) ligands affect reactivity of the titanium complexes.

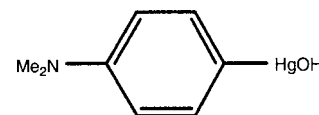


**Brian K. Nicholson, Sam K. Whitley**

*J. Organomet. Chem.* 689 (2004) 515

Characterisation of the first authenticated organomercury hydroxide, 4- $\text{Me}_2\text{NC}_6\text{H}_4\text{-HgOH}$

4- $\text{Me}_2\text{NC}_6\text{H}_4\text{HgOH}$  has been characterised spectroscopically and crystallographically as a true organomercury hydroxide.

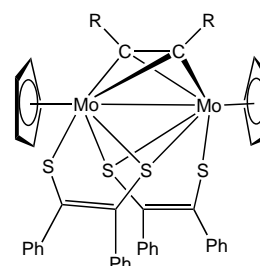


**Harry Adams, Michael J. Morris,  
Sarah A. Morris, Jeffrey C. Motley**

*J. Organomet. Chem.* 689 (2004) 522

Dithiolene transfer from nickel to a dimolybdenum centre: the first dithiolene alkyne complex

The first example of a dithiolene alkyne complex,  $[\text{Mo}_2(\mu\text{-C}_2\text{R}_2)(\mu\text{-S}_2\text{C}_2\text{Ph}_2)_2\text{Cp}_2]$  ( $\text{R} = \text{CO}_2\text{Me}$ ,  $\text{Cp} = \eta\text{-C}_5\text{H}_5$ ) has been prepared by the transfer of dithiolene ligands from  $[\text{Ni}(\text{S}_2\text{C}_2\text{Ph}_2)_2]$  to the dimolybdenum alkyne complex  $[\text{Mo}_2(\mu\text{-C}_2\text{R}_2)(\text{CO})_4\text{Cp}_2]$ .

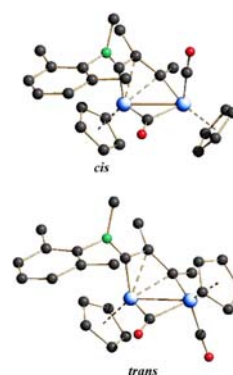


**Vincenzo G. Albano, Luigi Busetto,  
Fabio Marchetti, Magda Monari,  
Stefano Zacchini, Valerio Zanotti**

*J. Organomet. Chem.* 689 (2004) 528

Stereochemistry of the insertion of disubstituted alkynes into the metal aminocarbyne bond in diiron complexes

Alkynes ( $\text{R}'\text{C}\equiv\text{CR}''$ ) insert into the  $\mu$ -carbon–metal bond of diiron complexes affording  $\mu\text{-}\sigma:\eta^3$  vinyliminium species. Several isomers have been found arising from: (i) the iminium moiety configuration (*E*, *Z*), (ii) mutual Cp position (*cis*–*trans* isomers), (iii) head–head or head–tail insertion mode of  $\text{R}'\text{C}\equiv\text{CR}''$ . These isomeric forms have been investigated by NMR and X-ray diffraction.

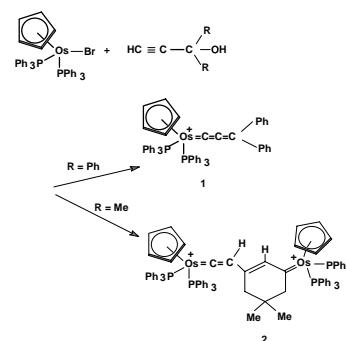


**R. Lalrempuia, Hemant Yennawar,  
Yurij A. Mozharivskiy, Mohan Rao Kollipara**

*J. Organomet. Chem.* 689 (2004) 539

Synthesis, characterization and molecular structures of allenylidene, vinylidene–alkylidene complexes containing  $[\text{CpOs}(\text{PPh}_3)_2]^+$  fragment

The complex  $[\text{CpOs}(\text{PPh}_3)_2\text{Br}]$  reacts with the alkynols  $\text{HC}\equiv\text{CCR}_2(\text{OH})$  to form a cationic osmiumallenylidene complex  $[\text{CpOs}(\text{C}=\text{C}=\text{CPh}_2)(\text{PPh}_3)_2][\text{PF}_6]$  (**1**) when  $\text{R} = \text{Ph}$  and a metallacumulene, a dicationic diosmium vinylidene–alkylidene complex  $[(\text{CpOs})_2(\mu\text{-C}_{10}\text{H}_{12})(\text{PPh}_3)_4][\text{PF}_6]_2$  (**2**) was obtained when  $\text{R} = \text{Me}$ . The structures of these complexes have been determined by X-ray diffraction.

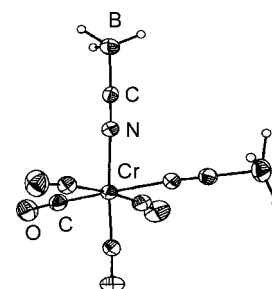


**Fu-Chen Liu, Yow-Chuan Sheu, Jo-Ju She,  
Yu-Chang Chang, Fung-E Hong,  
Gene-Hsian Lee, Shie-Ming Peng**

*J. Organomet. Chem.* 689 (2004) 544

Syntheses and characterizations of group 6 metal cyanotrihydroborate complexes

The anionic complexes,  $[\text{M}(\text{CO})_{6-n}(\text{NCBH}_3)_n]^{n-}$  ( $n = 2$ ,  $\text{M} = \text{Cr}$ ;  $n = 3$ ,  $\text{M} = \text{Cr}$ ,  $\text{Mo}$ ,  $\text{W}$ ), were prepared and characterized. The cyanotrihydroborate ligand bonds to the metal through a nitrogen atom. A *cis* configuration is found in  $[\text{Cr}(\text{CO})_4(\text{NCBH}_3)_2]^{2-}$ . Molecular structures of  $[\text{M}(\text{CO})_3(\text{NCBH}_3)_3]^{3-}$  ( $\text{M} = \text{Cr}$ ,  $\text{Mo}$ ,  $\text{W}$ ) are similar and a *facial* configuration is observed.

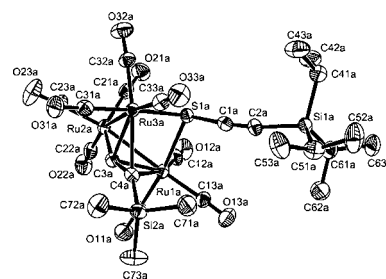


**M. Isabel Alcalde, Esther Delgado,  
Bruno Donnadiou, Elisa Hernández,  
M. Paz Martín, Félix Zamora**

*J. Organomet. Chem.* 689 (2004) 552

Asymmetric acetylenic thioethers in ruthenium cluster chemistry

The compounds  $[\text{Ru}_3(\text{CO})_9(\mu, \eta^2\text{-SC}\equiv\text{CR})]$  ( $\mu_3, \eta^2\text{-C}\equiv\text{CR}'$ ) ( $\text{R} = \text{SiMe}_3$ ,  $\text{R}' = \text{Si}^i\text{Pr}_3$  (**1**);  $\text{R} = \text{Si}^i\text{Pr}_3$ ,  $\text{R}' = \text{SiMe}_3$  (**2**);  $\text{R} = \text{Si}^i\text{Pr}_3$ ,  $\text{R}' = \text{H}$  (**3**);  $\text{R} = \text{H}$ ,  $\text{R}' = \text{Si}^i\text{Pr}_3$  (**4**)) have been obtained by cleavage of one S–C bond of the thioethers  $^i\text{Pr}_3\text{SiC}\equiv\text{CSC}\equiv\text{CR}$  ( $\text{R} = \text{H}$ ,  $\text{SiMe}_3$ ) in the presence of  $\text{Ru}_3(\text{CO})_{12}$ .

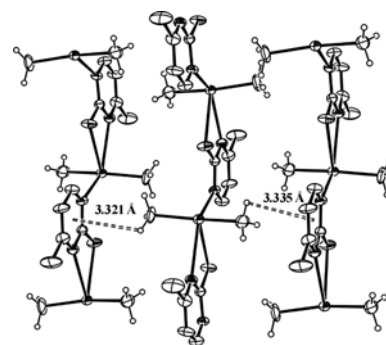


**Antonio Rodríguez, J. Arturo García-Vázquez,  
Antonio Sousa-Pedrares, Jaime Romero,  
Antonio Sousa**

*J. Organomet. Chem.* 689 (2004) 557

On the influence of the heterocyclic ring substituents on the structure of dimethylthallium pyrimidine-2-thionato complexes. Crystal structure of dimethyl-(4-trifluoromethylpyrimidine-2-thionate)thallium(III): a compound with intermolecular C–H... $\pi$  interactions

The reaction of 4-trifluoromethylpyrimidine-2-thione (4-CF<sub>3</sub>pymSH) with dimethylthallium(III) hydroxide afforded the complex  $[\text{Me}_2\text{Tl}(4\text{-CF}_3\text{pymS})]_n$ . This compound consists of polymeric chains which are joined by intermolecular C–H... $\pi$  interactions between an hydrogen atom of each methyl group and one of the pyrimidine rings of a neighbouring chain.

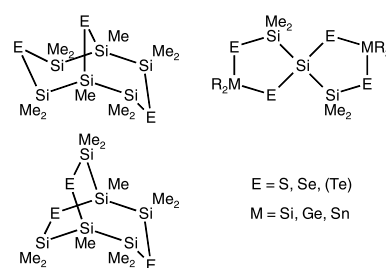


**U. Herzog, H. Bormann**

*J. Organomet. Chem.* 689 (2004) 564

Organosilicon chalcogenides with trisilane units – bicyclo[3.3.1]nonanes, bicyclo[3.2.2]nonanes and spiro[4.4]nonanes

Treatment of 1,2,3-trichloropentamethyltrisilane (**1**) with  $\text{H}_2\text{S}/\text{NEt}_3$  results in the formation of a mixture of two isomers of  $(\text{Me}_2\text{Si}_3)_2\text{S}_3$  with a bicyclo[3.3.1]nonane (**2a**) and a bicyclo[3.2.2]nonane (**2b**) skeleton, while the reaction of **1** with  $\text{Li}_2\text{Se}$  yields one product only,  $(\text{Me}_2\text{Si}_3)_2\text{Se}_3$  (**3a**), with a bicyclo[3.3.1]nonane structure. Compounds  $\text{Si}(\text{SiMe}_2\text{EMR}_2\text{E})_2$  (**5a–h**;  $\text{MR}_2$ :  $\text{SiMe}_2$ ,  $\text{SiPh}_2$ ,  $\text{GeMe}_2$ ,  $\text{SnMe}_2$ ;  $\text{E} = \text{S}$ ,  $\text{Se}$ ,  $\text{Te}$ ) with a spiro[4.4]nonane skeleton have been obtained in mixture with varying amounts of the corresponding six-membered rings  $(\text{R}_2\text{ME})_3$  by reactions of mixtures of 1,2,2,3-tetrachlorotetramethyltrisilane (**4**) and diorganodichlorosilanes,  $\text{Me}_2\text{GeCl}_2$  or  $\text{Me}_2\text{SnCl}_2$ , with  $\text{H}_2\text{S}/\text{NEt}_3$ ,  $\text{Li}_2\text{Se}$  or  $\text{Li}_2\text{Te}$ . All products have been characterized by multinuclear NMR spectroscopy ( $^1\text{H}$ ,  $^{13}\text{C}$ ,  $^{29}\text{Si}$ ,  $^{119}\text{Sn}$ ,  $^{77}\text{Se}$ ,  $^{125}\text{Te}$ ). The molecular structure of **3a** is reported.

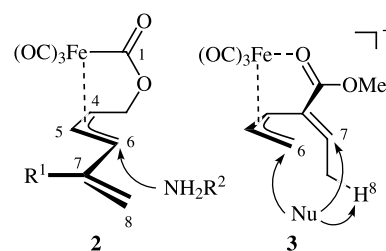


**Rainer Schobert, Anett Mangold,  
Thomas Baumann, Wolfgang Milius,  
Frank Hampel**

*J. Organomet. Chem.* 689 (2004) 575

Reactions of chelated  $\eta^3$ -pentadienyl iron complexes with nucleophiles

Metallacyclic (1-3- $\eta^3$ ) pentadienyl iron complexes **2** and **3** with conjugated though electronically decoupled allyl and vinyl moieties were reacted with various heteroatom and carbon nucleophiles. Amines selectively attacked neutral complexes **2** on the allylic end C-6;  $\text{S}'_{\text{N}}$ -like reaction with its coplanar vinyl residue was not observed. Depending on electronic and sterical factors, nucleophiles regio- and diastereoselectively attacked the cationic complex **3** either on the allylic terminus C-6, or on the vinyl residue which is part of an activated Michael system, or they abstracted a proton  $\text{H}^8$ .

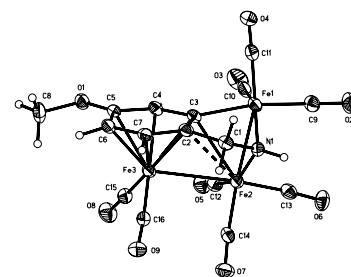


**Daniel Dönnecke, Joachim Wunderle, Wolfgang Imhof**

*J. Organomet. Chem.* 689 (2004) 585

Ligand properties of aromatic azines: C–H activation, metal induced disproportionation and catalytic C–C coupling reactions

Aromatic azines by treatment with  $\text{Fe}_2(\text{CO})_9$  show two typical reaction pathways. C–H activation reactions regioselectively occur in *ortho*-position with respect to the imine moiety. In addition, products from a disproportionation reaction of the azine into a primary imine and a nitrile were observed and structurally characterized. The same reaction principles are found in catalytic C–C coupling reactions in the presence of  $\text{Ru}_3(\text{CO})_{12}$  as the precatalyst.

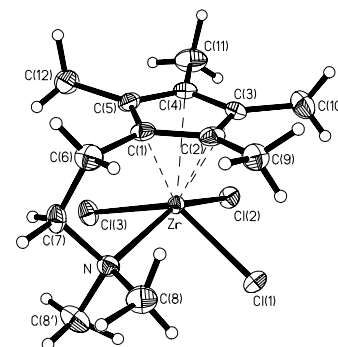


**Dmitrii P. Krut'ko, Maxim V. Borzov, Roman S. Kirsanov, Mikhail Yu. Antipin, Andrei V. Churakov**

*J. Organomet. Chem.* 689 (2004) 595

Mono- and bis-(2-dimethylaminoethyl) tetramethylcyclopentadienyl zirconium(IV) complexes: synthesis and structural studies in crystalline state and in solutions

A novel half-sandwich Zr(IV) complex  $[\eta^5\text{-}\eta^1\text{-}N\text{-C}_5(\text{CH}_3)_4\text{CH}_2\text{CH}_2\text{N}(\text{CH}_3)_2]\text{ZrCl}_3$  together with zirconocene dichlorides  $[\eta^5\text{-C}_5(\text{CH}_3)_4\text{CH}_2\text{CH}_2\text{N}(\text{CH}_3)_2][\eta^5\text{-C}_5(\text{CH}_3)_5]\text{ZrCl}_2$  and  $[\eta^5\text{-C}_5(\text{CH}_3)_4\text{CH}_2\text{CH}_2\text{N}(\text{CH}_3)_2]\text{ZrCl}_2$  have been prepared. Complex **6** has been isolated and characterized as an adduct with THF, an adduct with tetrahydrothiophene, and a solvent-free form. The dynamic behavior of the THF adduct in  $\text{CD}_2\text{Cl}_2$  has been studied by the variable-temperature  $^1\text{H}$  and  $^{13}\text{C}\{^1\text{H}\}$  NMR spectroscopy.

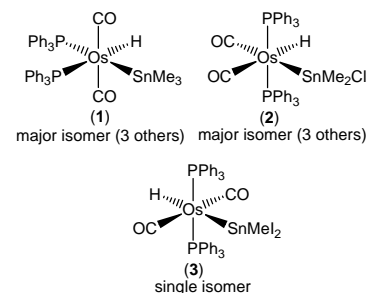


**Clifton E.F. Rickard, Warren R. Roper, George R. Whittell, L. James Wright**

*J. Organomet. Chem.* 689 (2004) 605

Four isomers from the oxidative addition of  $\text{Me}_3\text{SnH}$  to  $\text{Os}(\text{CO})_2(\text{PPh}_3)_3$  and the crystal structure of  $\text{Os}(\text{SnMe}_2\text{I})(\text{CO})_2(\text{PPh}_3)_2$ , in which the pairs of CO and  $\text{PPh}_3$  ligands are mutually *trans*

In solution  $\text{Os}(\text{SnMe}_3)\text{H}(\text{CO})_2(\text{PPh}_3)_2$  and  $\text{Os}(\text{SnMe}_2\text{Cl})\text{H}(\text{CO})_2(\text{PPh}_3)_2$  exist as a mixture of four isomers whereas  $\text{Os}(\text{SnMeI}_2)\text{H}(\text{CO})_2(\text{PPh}_3)_2$  exists as a single isomer. The preferred isomer depends on the substituents on the stannyl ligand in these compounds.

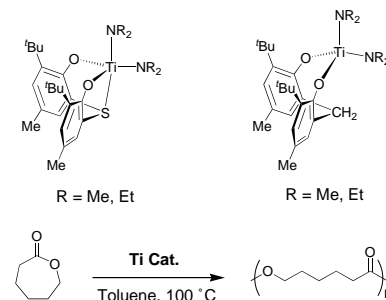


**Yoshinori Takashima, Yuushou Nakayama, Toshikazu Hirao, Hajime Yasuda, Akira Harada**

*J. Organomet. Chem.* 689 (2004) 612

Bis(amido)titanium complexes having chelating diaryloxo ligands bridged by sulfur or methylene and their catalytic behaviors for ring-opening polymerization of cyclic esters

A series of titanium bis(dialkylamido) complexes coordinated by O–E–O (E = S,  $\text{CH}_2$ ) chelating bis(aryloxo) ligands,  $\text{Ti}[\text{E}(4\text{-Me-6-}^t\text{BuC}_6\text{H}_2\text{O})_2](\text{NR}_2)_2$  (E = S,  $\text{CH}_2$ , R = Me, Et), were synthesized by the reaction of  $\text{Ti}(\text{NR}_2)_4$  (R = Me, Et) with 2,2'-E(4-Me-6- $^t\text{BuC}_6\text{H}_2\text{OH})_2$  (E = S, E =  $\text{CH}_2$ ). The crystal structures of complexes were determined by X-ray diffraction. These complexes were found to initiate the polymerization of  $\epsilon$ -caprolactone in toluene at  $100^\circ\text{C}$  affording quantitative polymer yields.

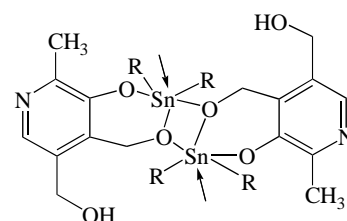


José S. Casas, Alfonso Castiñeiras,  
Félix Condori, María D. Couce,  
Umberto Russo, Agustín Sánchez, José Sordo,  
José M. Varela, Ezequiel M. Vázquez-López

*J. Organomet. Chem.* 689 (2004) 620

Diorganotin(IV) complexes of dideprotonated pyridoxine (PN, vitamin B<sub>6</sub>). The crystal structures of [SnEt<sub>2</sub>(PN-2H)]·CH<sub>3</sub>OH, [SnEt<sub>2</sub>(PN-2H)(DMSO)] and [SnBu<sub>2</sub>(PN-2H)]

By reacting the appropriate SnR<sub>2</sub>O oxide (R = Me, Et, Bu) with pyridoxine (PN) we prepared and characterized [SnR<sub>2</sub>(PN-2H)] complexes which contain dimeric [SnR<sub>2</sub>(PN-2H)]<sub>2</sub> units. The structure of [SnEt<sub>2</sub>(PN-2H)(DMSO)] shows the ability of these units to accept electron pairs.

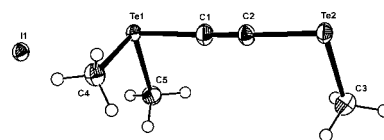


Daniel B. Werz, Rolf Gleiter,  
Frank Rominger

*J. Organomet. Chem.* 689 (2004) 627

An alkynyltelluronium iodide and its solid state structure: evidence for p → σ\* interactions

The synthesis of the first alkynyltelluronium salt is presented. X-ray investigations of this species reveal a two-dimensional polymeric structure, assembled through various secondary Te···Te and Te···I interactions. The structure itself can be rationalized in terms of p → σ\* interactions.

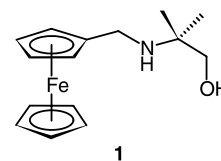


Petr Štěpnička, Ivana Cisařová, Jiří Ludvík

*J. Organomet. Chem.* 689 (2004) 631

Acid-base and counter ion dependent solid-state assembly of a ferrocene β-aminoalcohol and the corresponding ammonium salt

The solid-state structure of 2-(ferrocenylmethyl)amino-2-methylpropan-1-ol (**1**) and the ammonium salts [1H]Br (**2**) and [1H]H<sub>2</sub>PO<sub>4</sub>·1/6Et<sub>2</sub>O (**3a**) have been determined with the aim of determining the potential of **1** as an organometallic building block for crystal engineering. The solid-state assemblies of **1** and **2** consist of infinite ladder-like arrays interconnected by hydrogen bonds, while that **3a** is formed by infinite hydrogen-bonded dihydrogenphosphate chains, which are interlinked by hydrogen bonds to cations [1H]<sup>+</sup>.

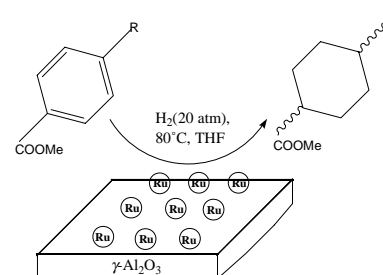


Guido Marconi, Paolo Pertici,  
Claudio Evangelisti, Anna Maria Caporusso,  
Giovanni Vitulli, Gustavo Capannelli,  
Manh Hoang, Terence W. Turney

*J. Organomet. Chem.* 689 (2004) 639

Nanostructured ruthenium on γ-Al<sub>2</sub>O<sub>3</sub> catalysts for the efficient hydrogenation of aromatic compounds

Free and trioctylamine (TOA)-stabilized ruthenium nanoparticles, generated by treatment of Ru(η<sup>6</sup>-cycloocta-1,3,5-triene)(η<sup>4</sup>-cycloocta-1,5-diene) with hydrogen, have been deposited on γ-Al<sub>2</sub>O<sub>3</sub> supports having different surface area. The resulting systems are efficient and long lived catalysts in the hydrogenation of aromatic rings, considerably more active than analogous commercial catalysts. A new pathway to synthesize 4-carbomethoxyformylcyclohexane, important starting material in the preparation of pharmaceutical products, has been set up in the presence of Ru(TOA) on high surface area γ-Al<sub>2</sub>O<sub>3</sub> catalyst.

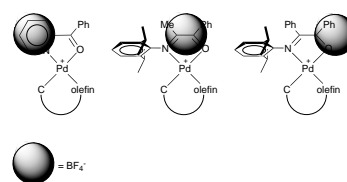


**Barbara Binotti, Carla Carfagna,  
Elisabetta Foresti, Alceo Macchioni,  
Piera Sabatino, Cristiano Zuccaccia,  
Daniele Zuccaccia**

*J. Organomet. Chem.* 689 (2004) 647

Cationic olefin Pd(II) complexes bearing  $\alpha$ -iminoketone N,O-ligands: synthesis, intramolecular and interionic characterization and reactivity with olefins and alkynes

Complexes  $[\text{Pd}(\eta^1, \eta^2\text{-5-OMe-C}_8\text{H}_{12})(\text{N}, \text{O})]\text{-BF}_4$  ( $\text{N}, \text{O} = 2,6\text{-}(i\text{-Pr})_2(\text{C}_6\text{H}_3)\text{N}=\text{C}(\text{Ph})\text{-C}(\text{Ph})=\text{O}$ , **1**;  $2,6\text{-}(i\text{-Pr})_2(\text{C}_6\text{H}_3)\text{N}=\text{C}(\text{Me})\text{-C}(\text{Ph})=\text{O}$ , **2**; 2-benzoylpyridine, **3**); were synthesized by the reactions of  $[\text{Pd}(\eta^1, \eta^2\text{-5-OMe-C}_8\text{H}_{12})\text{Cl}]_2$  with the suitable N,O-ligand.

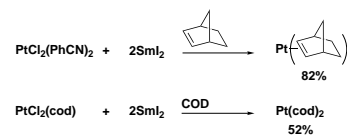


**Sensuke Ogoshi, Masaki Morita,  
Katsuharu Inoue, Hideo Kurosawa**

*J. Organomet. Chem.* 689 (2004) 662

Convenient synthesis of Pt(0) olefin complexes by colorimetric reduction of Pt(II) complexes with  $\text{SmI}_2$

Homoleptic olefin platinum(0) complexes,  $\text{Pt}(\text{C}_7\text{H}_{10})_3$  and  $\text{Pt}(\text{cod})_2$ , were synthesized by the colorimetric reduction of platinum(II) complexes with  $\text{SmI}_2$  in the presence of 2-norbornene or COD.

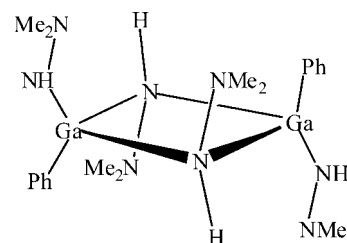


**Bing Luo, Wayne L. Gladfelter**

*J. Organomet. Chem.* 689 (2004) 666

Synthesis and X-ray crystallographic structures of  $[\text{HGa}(\text{NMe}_2)_2]_2$  and  $[\text{PhGa}(\text{NHNMe}_2)_2]_2$ , and room-temperature conversions of  $[\text{HGa}(\text{NMe}_2)_2]_2$  to  $(\text{HGaNH})_n$  and  $(\text{HGaNMe})_n$

Bis(dimethylamido) complexes of phenyl and hydrido gallium were found to be useful sources of “ $\text{RGa}^{2+}$ ” synthons, where  $\text{R} = \text{Ph}$  and  $\text{H}$ . Solid state structures of  $[\text{HGa}(\text{NMe}_2)_2]_2$  and  $[\text{PhGa}(\text{NH-NMe}_2)_2]_2$  were determined.

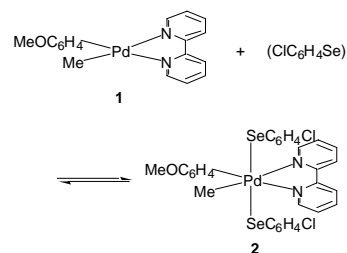


**Allan J. Canty, Melanie C. Denney,  
Jim Patel, Huailin Sun, Brian W. Skelton,  
Allan H. White**

*J. Organomet. Chem.* 689 (2004) 672

Reversible oxidative addition of a diaryl diselenide to a diorganopalladium(II) complex, carbon-selenium bond formation at palladium(IV), and structural studies of palladium(II) and platinum(IV) selenolates

Methyl(4-methoxyphenyl)(2,2'-bipyridine)palladium(II) (**1**) reacts with bis(4-chlorophenyl) diselenide to form an equilibrium with a Pd(IV) complex (**2**), and organopalladium(II) complexes of 1,2-bis(diphenylphosphino) ethane react with cleavage of Pd-C bonds to form C-Se bonds.

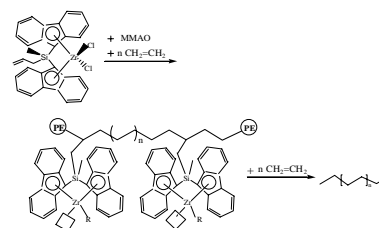


**Guangrong Tang, Guo-Xin Jin,  
Linhong Weng**

*J. Organomet. Chem.* 689 (2004) 678

Self-immobilized metallocene catalysts bearing an allyl group for ethylene polymerization, X-ray crystal structure of  $[(\text{CH}_2=\text{CHCH}_2)\text{CH}_3\text{Si}(\text{C}_{13}\text{H}_8)_2]\text{ZrCl}_2$

The *ansa*-metallocene complexes with an allyl substituted silane bridge have been synthesized and used as self-immobilized catalysts for ethylene polymerization. The results showed that the self-immobilized catalysts **1–4, 6** kept high ethylene polymerization activities of ca.  $10^6$  g PE mol<sup>-1</sup> M h<sup>-1</sup> and high molecular weight ( $M_w \approx 10^5$ ) of polyethylene.



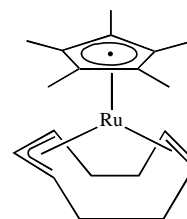
## Notes

**Rehan Basta, Atta M. Arif, Richard D. Ernst**

*J. Organomet. Chem.* 689 (2004) 685

Formation and structural study of a mixed ene/enyl ligand on reaction of  $[\text{Ru}(\text{C}_5\text{Me}_5)_2\text{Cl}_2]$  with 1,3-cyclononadiene

The incorporation of 1,3-cyclononadiene into a  $\text{Ru}(\text{C}_5\text{Me}_5)_2$  complex occurs in conjunction with its deprotonation and subsequent isomerization to an  $\eta^5$ -1,2,3,6,7-cyclononadienyl ligand, having isolated allyl and olefin fragments rather than a contiguous  $\eta^5$ -dienyl ligand. This formulation has been supported spectroscopically and by a single crystal structural study.

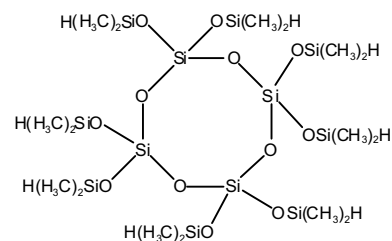


**Guoping Cai, Jonathan R. Sargent,  
William P. Weber**

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

Preparation and reactivity of polyfunctional six- and eight-membered cyclic silicates

Six- and eight-membered cyclic silicates with reactive Si–H or Si-vinyl functional groups have been synthesized. These are generally resistant to either strong acid or base catalyzed ring opening.

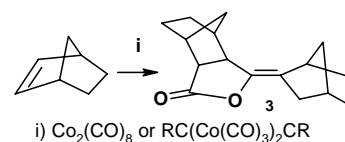


**Michael P. Coogan, Robert L. Jenkins,  
Eva Nutz**

*J. Organomet. Chem.* 689 (2004) 694

Carbonylative dimerisation of norbornene by cobalt carbonyl: an overlooked by-product of the Pauson–Khand reaction

Dicobaltoctacarbonyl or dicobalthexacarbonyl-alkyne complexes react with norbornene in inert solvents and in the absence of activation to give an enol-lactone **3**.

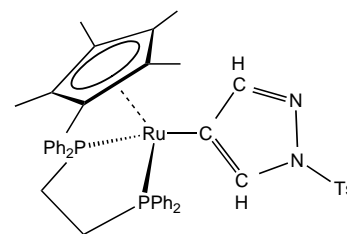


Michael I. Bruce, Benjamin G. Ellis,  
Brian W. Skelton, Allan H. White

*J. Organomet. Chem.* 689 (2004) 698

Preparation and molecular structure of a  
pyrazolyl-ruthenium complex,  $\text{Ru}\{\text{C}_3\text{H}_2\text{NN}(\text{SO}_2\text{tol})\}(\text{dppe})\text{Cp}^*$

The reaction between  $\text{RuCl}(\text{dppe})\text{Cp}^*$  and  
 $\text{Me}_3\text{SiC}\equiv\text{CC}(\text{SiMe}_3)=\text{NNHTs}$  has given the  
pyrazole derivative  $\text{Ru}(\overline{\text{C}}=\text{CHNTsN}=\overline{\text{C}}\text{H})(\text{dppe})\text{Cp}^*$   
(**1**), which was characterised by a single-  
crystal X-ray structure determination.



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