

## Contents

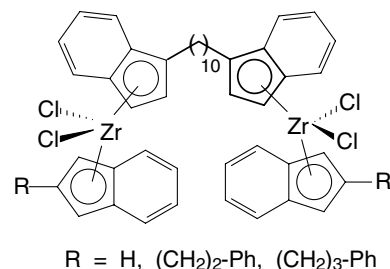
### Regular Papers

**Matthias Deppner, Ralf Burger,  
Marc Weiser, Helmut G. Alt**

*J. Organomet. Chem.* 690 (2005) 2861

Alkyliidenverbrückte, symmetrische, zweiker-  
nige Metallocenkomplexe als Katalysatoren  
für die Propylenpolymerisation

The synthesis and characterization of various symmetric dinuclear metallocene complexes is described. After activation with different cocatalysts, such as methylalumoxane (MAO),  $[\text{CPh}_3]^+ [\text{B}(\text{C}_6\text{F}_5)_4]^-$  or  $\text{B}(\text{C}_6\text{F}_5)_3$ , the resulting catalysts are used for the homogeneous polymerization of propylene. The performance of the various catalysts and the extent of stereoselectivity of the polymerization is dependent on the nature of the corresponding cocatalyst.

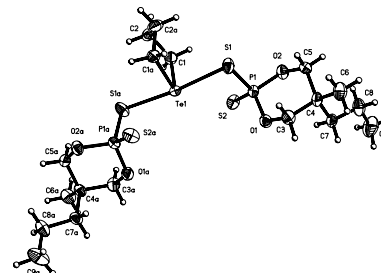


**Ave María Cotero-Villegas,  
Rubén-Alfredo Toscano,  
Miguel Muñoz-Hernández,  
Marcela López-Cardoso,  
Patricia García y García,  
Raymundo Cea-Olivares**

*J. Organomet. Chem.* 690 (2005) 2872

Synthesis, spectroscopic characterization of *O,O*-alkylene dithiophosphates of tellurolane and 1-oxa-4-tellurane. Single crystal structures of  $\text{C}_4\text{H}_8\text{Te}[\text{S}_2\text{P}(\text{OCH}_2)_2\text{CMe}^i\text{Pr}]_2$  and  $\text{C}_4\text{H}_8\text{OTe}[\text{S}_2\text{P}(\text{OCH}_2)_2\text{CET}_2]$

The synthesis of four disubstituted organo-tellurium (IV) and one monosubstituted compounds was achieved. The molecular structures of **2** and **3** were determined by X-ray analyses. Both structures are monomeric and show anisobidentate coordination. The geometry around of Te in **2** can be described as bicapped  $\psi$ -trigonal bipyramid, whereas in **3** it is a distorted octahedral structure with the lone pair stereochemically inactive.

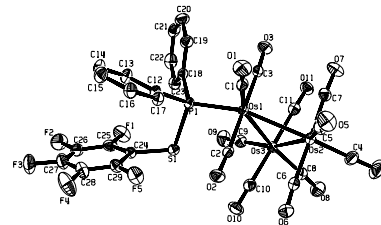


**Oscar Baldovino-Pantaleón,  
Gustavo Ríos-Moreno, Ruben A. Toscano,  
David Morales-Morales**

*J. Organomet. Chem.* 690 (2005) 2880

Reactivity of  $\text{C}_6\text{F}_5\text{S-P}(\text{C}_6\text{H}_5)_2$  with  $[\text{M}_3(\text{CO})_{12}]$  (M = Fe, Ru, Os). The X-ray crystal structures of  $[\text{Fe}_2(\mu\text{-SC}_6\text{F}_5)(\mu\text{-PPh}_2)(\text{CO})_6]$ ,  $[\text{Ru}_4(\mu_3\text{-SPPH}_2)_2(\mu\text{-SC}_6\text{F}_5)_2(\mu\text{-PPh}_2)_2(\text{SC}_6\text{F}_5)_2(\text{CO})_6]$  and  $[\text{Os}_3(\eta^1\text{-Ph}_2\text{P-SC}_6\text{F}_5)(\text{CO})_{11}]$

The thiophosphinite  $\text{C}_6\text{F}_5\text{S-P}(\text{C}_6\text{H}_5)_2$  (**1**) was synthesized and its reactivity with transition metal carbonyl clusters explored  $[\text{M}_3(\text{CO})_{12}]$  (M = Fe, Ru, Os). The products being the result of the P–S bond cleavage for iron, P–S bond and S–C bond cleavage for ruthenium and plain behavior of  $\text{C}_6\text{F}_5\text{S-P}(\text{C}_6\text{H}_5)_2$  (**1**) as tertiary phosphine in the case of osmium.

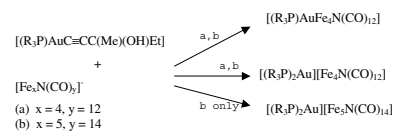


**George Ferguson, John F. Gallagher, Ann-Marie Kelleher, Trevor R. Spalding, F. Tony Deeney**

*J. Organomet. Chem.* 690 (2005) 2888

Use of phosphine gold acetylides  $[(R_3P)\text{-AuCCR}]$  to form phosphine gold derivatives of tetra-iron and penta-iron clusters

Nine complexes  $[(R_3P)\text{AuCCR}']$  with  $R = \text{Ph}$  or  $\text{Cy}$  and  $R'$  containing hydroxyl or amino functions were synthesised. Reactions between  $[(R_3P)\text{AuCCC}(\text{Me})(\text{OH})\text{Et}]$  and the iron clusters  $[\text{Fe}_4\text{N}(\text{CO})_{12}]^-$  (A) or  $[\text{Fe}_5\text{N}(\text{CO})_{14}]^-$  (B) gave  $[(R_3P)\text{AuFe}_4\text{N}(\text{CO})_{12}]$  and  $[(R_3P)_2\text{Au}][\text{Fe}_4\text{N}(\text{CO})_{12}]$  from both (A) and (B) and also  $[(R_3P)_2\text{Au}][\text{Fe}_5\text{N}(\text{CO})_{14}]$  from (B). The gold-iron clusters were characterised with IR, NMR and Mössbauer spectroscopies and for  $[(\text{Cy}_3\text{P})\text{AuFe}_4\text{N}(\text{CO})_{12}]$ , by a single-crystal X-ray analysis.

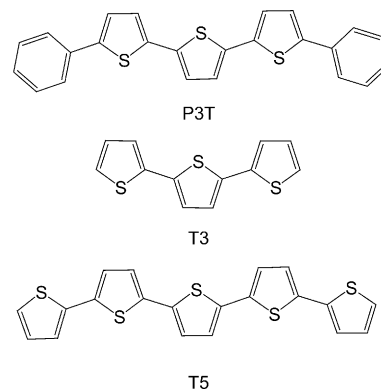


**Hiroto Tachikawa, Hiroshi Kawabata, Kenji Ishida, Kazumi Matsushige**

*J. Organomet. Chem.* 690 (2005) 2895

A DFT and direct MO dynamics study on the structures and electronic states of phenyl-capped terthiophene

The structures and electronic states of phenyl-capped terthiophene (denoted by P3T) and the ionic species of P3T have been investigated by means of density functional theory (DFT) and direct MO dynamics calculations. P3T is one of the high-performance molecular devices, which has been utilized as a semi-conductor.

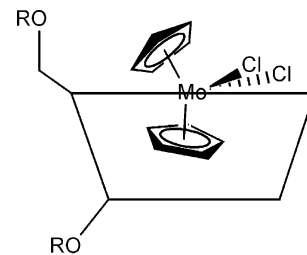


**Susana S. Braga, Maria Paula M. Marques, Joana B. Sousa, Martyn Pillinger, José J.C. Teixeira-Dias, Isabel S. Gonçalves**

*J. Organomet. Chem.* 690 (2005) 2905

Inclusion of molybdenocene dichloride ( $\text{Cp}_2\text{MoCl}_2$ ) in 2-hydroxypropyl- and trimethyl- $\beta$ -cyclodextrin: Structural and biological properties

Cyclodextrin inclusion compounds comprising molybdenocene dichloride were prepared, characterised and screened for their potential antiproliferative and cytotoxic activity, in both human cancer and healthy cell lines. Encapsulation was found to enhance the cytotoxic effect of  $\text{Cp}_2\text{MoCl}_2$ , with the TRIMEB adduct displaying the highest antitumour activity, along with the lowest toxicity towards non-neoplastic cells.



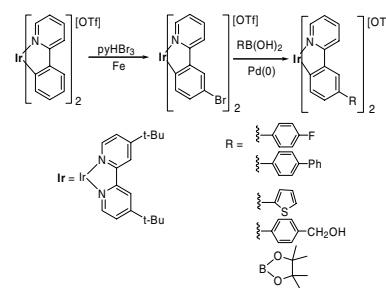
$R = \text{H}, \text{CH}_3$  or  $\text{CH}_2\text{CH}(\text{OH})\text{CH}_3$

**Ka-Man Cheung, Qian-Feng Zhang, Ka-Wang Chan, Michael H.W. Lam, Ian D. Williams, Wa-Hung Leung**

*J. Organomet. Chem.* 690 (2005) 2913

Direct functionalization of the cyclometalated 2-(2'-pyridyl)phenyl ligand bound to iridium(III)

The arylated Ir(III) cyclometalated complexes  $[\text{Ir}(4\text{-R-ppy})_2(\text{dtbpy})][\text{OTf}]$  ( $\text{ppy} = 2\text{-}(2'\text{-pyridyl})\text{phenyl}$ ,  $\text{dtbpy} = 4,4'\text{-di-tert-butyl-2,2'-bipyridine}$ ,  $\text{OTf} = \text{triflate}$ ) have been synthesized by cross-coupling of the bromo-substituted Ir(III) cyclometalated complex  $[\text{Ir}(4\text{-Br-ppy})_2(\text{dtbpy})][\text{OTf}]$  with aryl boronic acids  $\text{RB}(\text{OH})_2$ .

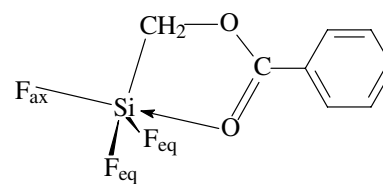


Swetlana G. Shevchenko, Yulii L. Frolov,  
Aleksei V. Abramov, Mikhail G. Voronkov

*J. Organomet. Chem.* 690 (2005) 2922

The theoretical research of the medium effect on the vibrational spectrum and the energy of intramolecular coordination  $\text{=O} \rightarrow \text{Si}$  in (benzyloxymethyl)trifluorosilane molecule

The characteristics of  $\text{C}_6\text{H}_5\text{C(=O)OCH}_2\text{SiF}_3$  (benzyloxymethyl)trifluorosilane containing a five-membered heterocycle closed by intramolecular coordination  $\text{=O} \rightarrow \text{Si}$  bond (**1a**) and its most stable acyclic isomer (**1b**) have been calculated by HF, MP2(Full) non-empirical methods, and DFT(B3LYP) using 6-311G(d) and 6-311 + G(2d,p) basis sets. The ( $\epsilon = 1-36$ ) medium effect on the energy and structural characteristics, dipole moments, and vibrational spectra of **1a** and **1b** isomers was calculated by DFT(B3LYP)/6-311 + G(2d,p) method (Onsager SCRF model).



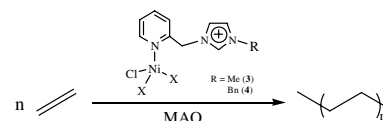
1a - heterocyclic isomer

Xin Wang, Shuang Liu, Linhong Weng,  
Guo-Xin Jin

*J. Organomet. Chem.* 690 (2005) 2934

Preparation, structure and ethylene polymerization behavior of mixed-halide nickel(II) complexes and cobalt(II) complex containing imidazolium

Picolylimidazolium nickel complexes (**3**, **4**) can be used as catalysts for the ethylene polymerization in the presence of methylaluminoxane (MAO) as co-catalyst in moderate activities.

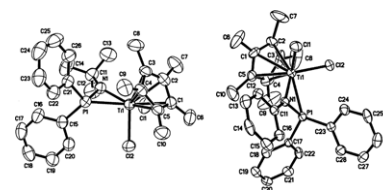


Changhe Qi, Suobo Zhang, Jinghui Sun

*J. Organomet. Chem.* 690 (2005) 2941

Synthesis, structure and ethylene polymerization behavior of titanium phosphinoamide complexes

(Phosphinoamide)(cyclopentadienyl)titanium(IV) complexes of the type  $\text{Cp}_2\text{TiCl}_2$  ( $\eta^2\text{-Ph}_2\text{PNR}$ ) have been synthesized and characterized. For polymerization of ethylene, catalytic activity of up to  $2.5 \times 10^6$  g/(mol Ti h) was observed when activated by *i*- $\text{Bu}_3\text{Al}/\text{Ph}_3\text{CB}(\text{C}_6\text{F}_5)_4$ .

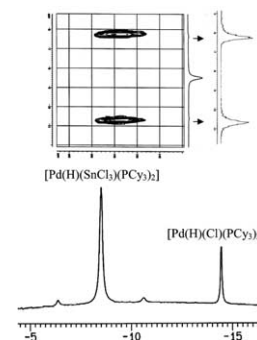


Duc Hanh Nguyen, Yannick Coppel,  
Martine Urrutigoity, Philippe Kalck

*J. Organomet. Chem.* 690 (2005) 2947

$[\text{Pd}(\text{H})(\text{SnCl}_3)_2\text{L}_2]$ : The key active species in the catalyzed alkoxy carbonylation reaction of terminal alkenes

Synthesis and full characterization of hydridopalladium complexes  $[\text{Pd}(\text{H})(\text{X})\text{L}_2]$  ( $\text{X} = \text{Cl}, \text{SnCl}_3$ ) have been carried out. Validation of the hydride route for the catalyzed alkoxy carbonylation reaction of terminal alkenes is demonstrated.

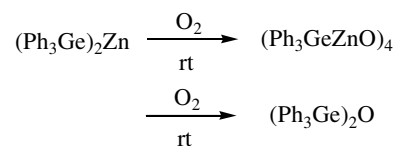


**Masato Nanjo, Takashi Oda, Teruhisa Sato, Kunio Mochida**

*J. Organomet. Chem.* 690 (2005) 2952

Synthesis and oxidation of bis(triphenylgermyl)zinc

Bis(triphenylgermyl)zinc,  $(\text{Ph}_3\text{Ge})_2\text{Zn}$ , was easily reacted by a small amount of oxygen to give tetrameric oxide,  $(\text{Ph}_3\text{GeZnO})_4$ . Four zinc and four oxygen atoms in (germyl)zinc oxide are arranged such that a cube is formed as determined by X-ray diffraction analysis. Further oxidation of  $(\text{Ph}_3\text{GeZnO})_4$  led to the formation of digermoxane,  $(\text{Ph}_3\text{Ge})_2\text{O}$  as a final product.

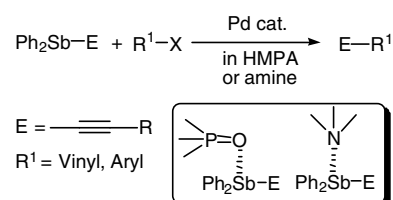


**Naoki Kakusawa, Kouichiro Yamaguchi, Jyoji Kurita**

*J. Organomet. Chem.* 690 (2005) 2956

Palladium-catalyzed cross-coupling reaction of ethynylstibanes with organic halides

Reaction of ethynylstibanes with organic halides in the presence of a palladium catalyst led to the formation of cross-coupling products. The yields of the products were highly dependent on the nature of the solvent employed, and good results were obtained when the reaction was carried out in HMPA or amines such as diethylamine and morpholine. The results imply that HMPA or amine used as a solvent should facilitate transmetalation of the ethynyl group on ethynylstibanes to the palladium catalyst by intermolecular coordination between antimony and oxygen (HMPA) or nitrogen (amine).

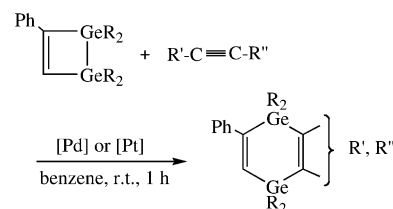


**Kunio Mochida, Hironori Karube, Masato Nanjo, Yasuhiro Nakadaira**

*J. Organomet. Chem.* 690 (2005) 2967

Preparation, structural characterization of 1,2-digermacyclobut-3-enes, and their palladium-catalyzed insertion of alkynes

1,2-Digermacyclobut-3-enes, prepared by the treatment of *Z*- $\alpha,\beta$ -bis(chlorodialkylgermyl)ethenes with Na metal, reacted with alkynes to give the corresponding insertion products in the presence of palladium and platinum complexes. The mechanism of the insertion reaction is discussed in terms of 1,4-digerma-2-buten-1,4-diylpalladium as a key intermediate.

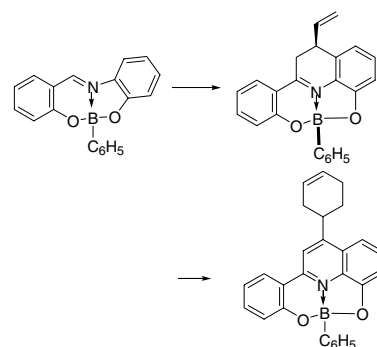


**Mario Rodríguez, Ma. Eugenia Ochoa, Rosa Santillan, Norberto Farfán, Víctor Barba**

*J. Organomet. Chem.* 690 (2005) 2975

Imino Diels–Alder reaction of boronates: A new route to 3,4-dihydroquinolines

The IDA reaction of a series of boronates derived from Schiff bases with sulfolene provided a new route to 4-substituted dihydroquinolines. The reaction is stereoselective providing the product with a *cis* stereochemistry between the  $\text{BC}_6\text{H}_5$  group and the vinylic group at position 4. The presence of the  $\text{N} \rightarrow \text{B}$  dative bond polarizes the imine fragment and activates the arylimine towards the cycloaddition reaction.

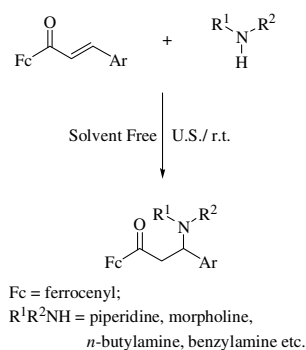


**Jin-Ming Yang, Shun-Jun Ji, Da-Gong Gu,  
Zhi-Liang Shen, Shun-Yi Wang**

*J. Organomet. Chem.* 690 (2005) 2989

Ultrasound-irradiated Michael addition of amines to ferrocenylenones under solvent-free and catalyst-free conditions at room temperature

A facile Michael addition of ferrocenylenones with aliphatic amines under ultrasound irradiation in the absence of solvent and catalyst at room temperature can afford 1-ferrocenyl-3-amino carbonyl compounds rapidly in high yields, which is also efficient in the aza-Michael reaction of other  $\alpha,\beta$ -unsaturated carbonyl compounds such as chalcone, carboxylic ester etc. Apart from experimental simplicity, generality and selectivity, the advantages of this methodology are the rapid, environmentally benign and less expensive processes, which will contribute to the progress of green chemistry.

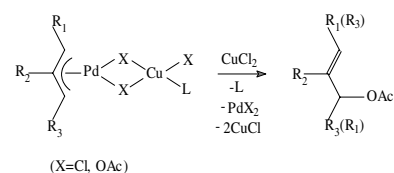


**José Ailton Gonçalves, Márcio José da Silva,  
Dorila Piló-Veloso, Oliver W. Howarth,  
Elena V. Gusevskaya**

*J. Organomet. Chem.* 690 (2005) 2996

Palladium catalyzed oxidation of monoterpenes: NMR study of palladium(II)-monoterpene interactions

Reactions of  $\beta$ -pinene, limonene and myrcene with Pd(II) complexes in acetic acid solutions were studied by <sup>1</sup>H NMR spectroscopy. Various  $\pi$ -allyl palladium complexes were detected in situ and their interaction with CuCl<sub>2</sub> has been investigated. The results clarify the mechanism of allylic oxidation of these substrates mediated by Pd(II)/Cu(II)-based catalytic systems.

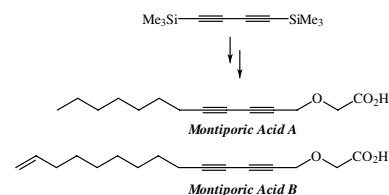


**Vito Fiandanese, Daniela Bottalico,  
Giuseppe Marchese, Angela Punzi**

*J. Organomet. Chem.* 690 (2005) 3004

Synthesis of polyacetylenic montiporic acids by means of organosilicon compounds

Montiporic acids A and B have been synthesized starting from the readily available 1,4-bis(trimethylsilyl)-1,3-butadiyne.



**Joseph M. Grill, Joseph H. Reibenspies,  
Stephen A. Miller**

*J. Organomet. Chem.* 690 (2005) 3009

Racemic and chiral expanded salen-type complexes derived from biphenol and binaphthol: SalbipM and salbinM complexes (M = Mn, Co, Ni, or Cu).

The reaction of 2-fluoronitrobenzene with 2,2'-biphenol or (*R*)-binaphthol, followed by reduction and subsequent reaction of the resulting diamine with two equivalents of a salicylaldehyde, affords expanded salen-type ligands which are readily metallated to form salbipM and salbinM complexes (M = Mn, Co, Ni, or Cu).

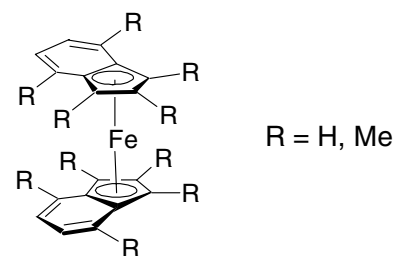


Owen J. Curnow, Glen M. Fern

*J. Organomet. Chem.* 690 (2005) 3018

Synthesis, structures and spectroelectrochemistry of methyl-substituted bis( $\eta^5$ -indenyl)iron(II) complexes

Several methyl-substituted indenyl-ferrocene complexes were prepared and then characterized by NMR and UV/visible spectroscopy, as well as by cyclic voltammetry. Oxidation potentials, but not UV/visible spectra, were found to be dependent on the degree of methyl substitution and the substitution pattern. Some ferrocenes were also crystallographically characterized.

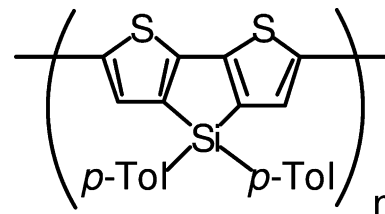


Joji Ohshita, Daisuke Hamamoto, Keisuke Kimura, Atsutaka Kunai

*J. Organomet. Chem.* 690 (2005) 3027

Anodic polymerization of dithienosilole and electroluminescent properties of the resulting polymer

Anodic oxidation of 2,6-bis(trimethylsilyl)-4,4-di(*p*-tolyl)dithienosilole gave a dark orange solid polymer with a small band gap. The spectral data of the polymer indicated that polymerization had proceeded with retention of silole rings in the polymer, although decomposition of the dithienosilole ring system had competed to an extent. Applications of the spin-coated polymer films as the electroluminescent device materials are described.

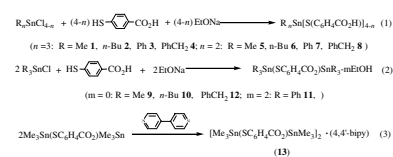


Chunlin Ma, Qingfu Zhang, Rufen Zhang, Linlin Qiu

*J. Organomet. Chem.* 690 (2005) 3033

Structural diversity of di and triorganotin complexes with 4-sulfanylbenzoic acid: Supramolecular structures involving intermolecular Sn...O, O-H...O or C-H...X (X = O or S) interactions

Twelve new organotin complexes with 4-sulfanylbenzoic acid of two types:  $R_nSn[(C_6H_4COOH)]_{4-n}$  (I) ( $n = 3$ : R = Me 1, *n*-Bu 2, Ph 3; PhCH<sub>2</sub> 4;  $n = 2$ : R = Me 5; *n*-Bu 6, Ph 7, PhCH<sub>2</sub> 8) and  $R_3Sn(SC_6H_4COO)SnR_3$  (II) (R = Me 9, *n*-Bu 10, Ph 11; PhCH<sub>2</sub> 12), along with the 4,4'-bipy adduct of 9,  $[Me_2Sn(SC_6H_4COO)SnMe_2]_2(4,4\text{-bipy})$  13, have been synthesized. The coordination behavior of 4-sulfanylbenzoic acid is monodentate in 1–8 by thiol S atom but not carboxylic oxygen atom. While, in 9–13 it behaves as multidentate by both thiol S atom and carboxylic oxygen atoms. The supramolecular structures of 6, 11 and 13 have been found to consist of 1D molecular chain built up by intermolecular O-H...O, C-H...O or C-H...S hydrogen bonds. The supramolecular aggregation of 7 is 2D network determined by two C-H...O hydrogen bonds. Extended intermolecular C-H...O interactions in the crystal lattice of 9 link the molecules into a 2D network.

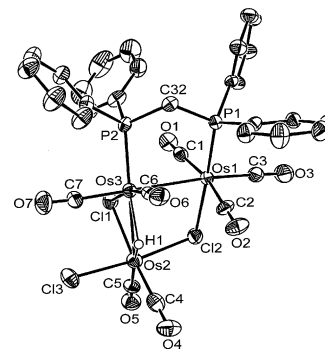


Shariff E. Kabir, Md. Arzu Miah, Nitai C. Sarker, G.M. Golzar Hossain, Kenneth I. Hardcastle, Dalia Rokhsana, Edward Rosenberg

*J. Organomet. Chem.* 690 (2005) 3044

Reactions of the unsaturated triosmium cluster  $[(\mu\text{-H})Os_3(CO)_8(Ph_2PCH_2P(Ph)C_6H_4)]$  with HX (X = Cl, Br, F, CF<sub>3</sub>CO<sub>2</sub>, CH<sub>3</sub>CO<sub>2</sub>): X-ray structures of  $[(\mu\text{-H})Os_3(CO)_7(\eta^1\text{-Cl})(\mu\text{-Cl})_2(\mu\text{-dppm})]$ ,  $[(\mu\text{-H})_2Os_3(CO)_8(Ph_2PCH_2P(Ph)C_6H_4)]^+ [CF_3O]^-$  and the two isomers of  $[(\mu\text{-H})Os_3(CO)_8(\mu\text{-Cl})(\mu\text{-dppm})]$

Treatment of the electronically unsaturated cluster  $[(\mu\text{-H})Os_3(CO)_8(Ph_2PCH_2P(Ph)C_6H_4)]$  (1) with HCl gas at ambient temperature afforded  $[(\mu\text{-H})Os_3(CO)_8(\mu\text{-Cl})(\mu\text{-dppm})]$  (2) and  $[(\mu\text{-H})Os_3(CO)_7(\eta^1\text{-Cl})(\mu\text{-Cl})_2(\mu\text{-dppm})]$  (3). Thermolysis of 2 at 110 °C led to isomerization of 2 to 4. A similar reaction of 1 with HBr gas gave only  $[(\mu\text{-H})Os_3(CO)_8(\mu\text{-Br})(\mu\text{-dppm})]$  (5) which does not isomerizes at 110 °C. In sharp contrast, 1 reacts with HF gas to give the protonated species  $[(\mu\text{-H})_2Os_3(CO)_8(Ph_2PCH_2P(Ph)C_6H_4)]^+$  (6). Treatment of 1 with CF<sub>3</sub>CO<sub>2</sub>H also gave cation 6 whereas CH<sub>3</sub>CO<sub>2</sub>H yielded  $[(\mu\text{-H})Os_3(CO)_8(\mu\text{-}\eta^2\text{-CH}_3\text{CO}_2)(\mu\text{-dppm})]$  (7).

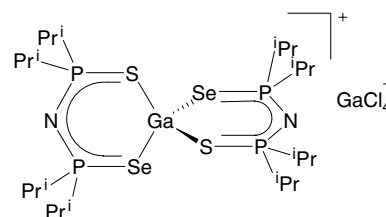


**Mónica Moya-Cabrera,**  
**Raymundo Cea-Olivares,**  
**Jocelyn Alcántara-García, Rubén A. Toscano,**  
**Vojtech Jancik, Verónica García-Montalvo,**  
**Simón Hernández-Ortega**

*J. Organomet. Chem.* 690 (2005) 3054

Synthesis and structural characterization of gallium and indium complexes obtained from redistribution reactions of mixed chalcogen-imidodiphosphinate ligands

The ionic complex  $[Ga\{N(SP^iPr_2)(SeP^iPr_2)-S, Se\}_2]^+[GaCl_4]^-$  (**5**) was prepared by means of a redistribution reaction from the monochelate  $[Cl_2Ga\{N(SP^iPr_2)(SeP^iPr_2)-S, Se\}]$  (**3**) complex in benzene. A similar phenomenon occurs in the heavier indium homologues, where the neutral complexes  $[ClIn\{N(SP^iPr_2)(SeP^iPr_2)-S, Se\}_2]$  (**7**) and  $[ClIn\{N(OP^iPr_2)(SP^iPr_2)-O, S\}_2]$  (**8**) were isolated along with  $InCl_3$  as the main reaction by-product.



**Hannes Simuste, Dmitri Panov,**  
**Ants Tuulmets, Binh T. Nguyen**

*J. Organomet. Chem.* 690 (2005) 3061

Formation of phenylmagnesium halides in toluene

Formation kinetics of phenylmagnesium chloride and bromide was investigated in diethyl ether and in toluene with minor additions of diethyl ether or THF. In toluene, a rapid formation of a disolvated Grignard reagent proceeds followed by a slow formation of a monosolvated reagent, able to catalyze the conversion of different halides into Grignard reagents.



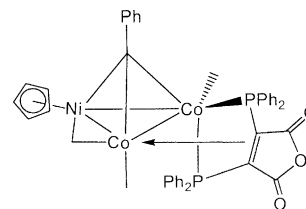
$$0 < n \leq 2$$

**Simon G. Bott, Kaiyuan Yang,**  
**Michael G. Richmond**

*J. Organomet. Chem.* 690 (2005) 3067

Ligand substitution in the mixed-metal cluster  $\text{PhCCO}_2\text{Ni}(\text{CO})_6\text{Cp}$  by 2,3-bis(diphenylphosphino)maleic anhydride (bma): An intimate picture involving the stepwise conversion of the trinuclear cluster  $\text{PhCCO}_2\text{Ni}(\text{CO})_4(\eta^2\text{-bma})\text{Cp}$  to the mononuclear compound  $\text{CpNi}[\text{PPh}_2\text{CPhC}=\text{C}(\text{PPh}_2)\text{C}(\text{O})\text{OC}(\text{O})]$

Thermolysis of the tetrahedral cluster  $\text{PhCCO}_2\text{Ni}(\text{CO})_6\text{Cp}$  (**1**) with the diphosphine ligand 2,3-bis(diphenylphosphino)maleic anhydride (bma) furnishes the cobalt-bridged cluster  $\text{PhCCO}_2\text{Ni}(\text{CO})_4(\eta^2\text{-bma})\text{Cp}$  (**2**). Thermolysis of **2** proceeds in a stepwise fashion to give the clusters  $\text{PhCCO}_2\text{Ni}(\text{CO})_3(\mu, \eta^2\text{-bma})\text{Cp}$  (**3**), and  $\text{Co}_2\text{Ni}(\text{CO})_4\text{Cp}[\mu_2, \eta^2, \eta^1\text{-C}(\text{Ph})\text{C}=\text{C}(\text{PPh}_2)\text{C}(\text{O})\text{OC}(\text{O})](\mu_2\text{-PPh}_2)$  (**4**), and the mononuclear nickel complex  $\text{CpNi}[\text{PPh}_2\text{CPhC}=\text{C}(\text{PPh}_2)\text{C}(\text{O})\text{OC}(\text{O})]$  (**5**). These compounds have been fully characterized in solution by IR and NMR spectroscopies, and the molecular structures of clusters **2-5** have been crystallographically determined.

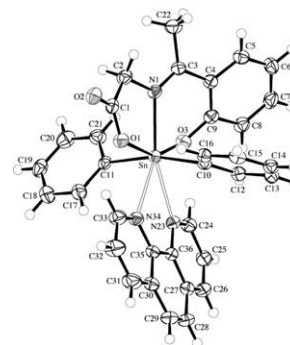


**Tushar S. Basu Baul,**  
**Cheerfulman Masharing, Rudolph Willem,**  
**Monique Biesemans, Michal Holčapek,**  
**Robert Jirásko, Anthony Linden**

*J. Organomet. Chem.* 690 (2005) 3080

Self-assembly of diorganotin(IV) 2- $\{[(E)\text{-}1\text{-}(2\text{-oxyaryl})\text{alkylidene}]\text{amino}\}$ acetates: An investigation of structures by X-ray diffraction, solution and solid-state tin NMR, and electropray ionization MS

The crystal structures of six diorganotin(IV) compounds, viz.,  $[\text{Me}_2\text{SnL}^2(\text{OH}_2)_2]_2$ ,  $[\text{Bu}_2\text{SnL}^2(\text{OH}_2)_2]_2$ ,  $[\text{Bu}_2\text{SnL}^1]_3 \cdot 0.5\text{C}_3\text{H}_6\text{O}$ ,  $[\text{Bu}_2\text{SnL}^3]_3 \cdot 0.5\text{C}_6\text{H}_6$ ,  $[\text{Ph}_2\text{SnL}^3]_n \cdot 0.5\text{C}_6\text{H}_6$  and  $[\text{Ph}_2\text{SnL}^2(\text{Phen})]$  ( $\text{L} = \text{carboxylic acid residue}$ , i.e., 2- $\{[(E)\text{-}1\text{-}(2\text{-oxyaryl})\text{alkylidene}]\text{amino}\}$ acetate) have been determined. The solution and solid-state structures are compared by using  $^{119}\text{Sn}$  NMR chemical shift data. Compounds were also studied using ESI-MS and their positive- and negative-ions mass fragmentation patterns are discussed.



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**Note**

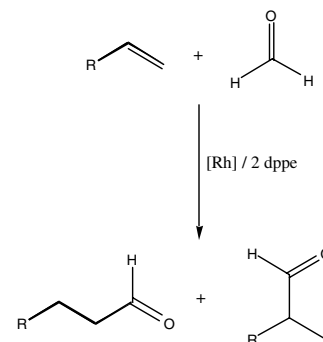
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**Merlin Rosales, Angel González,  
Beatriz González, Cristhina Moratinos,  
Homero Pérez, Johán Urdaneta,  
Roberto A. Sánchez-Delgado**

*J. Organomet. Chem.* 690 (2005) 3095

Hydroformylation of alkenes with paraformaldehyde catalyzed by rhodium–phosphine complexes

Hydroformylation of C6 alkenes and allyl alcohol has been achieved by reaction with formaldehyde in the presence of Rh-(acac)-(CO)<sub>2</sub> + 2eq dppe and other Rh-phosphine catalysts under moderate reaction conditions.



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