



## Contents

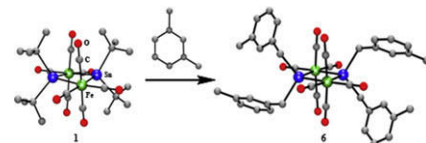
### Communication

**Lei Zhu, Veeranna Yempally,  
Derek Isrow, Perry J. Pellechia,  
Burjor Captain**

*J. Organomet. Chem.* 695 (2010) 1

Selective benzylic C–H activation of solvent toluene and *m*-xylene by an iron–tin cluster complex:  $\text{Fe}_2(\mu\text{-SnBu}_2)_2(\text{CO})_8$

The bimetallic cluster  $\text{Fe}_2(\mu\text{-SnBu}_2)_2(\text{CO})_8$ , **1**, reacts with solvent toluene and *m*-xylene to yield benzylic C–H activated products, where the  $\text{Bu}^t$  groups in **1** have been replaced by benzyl or *m*-tolyl groups. A radical mechanism for this reaction is proposed.



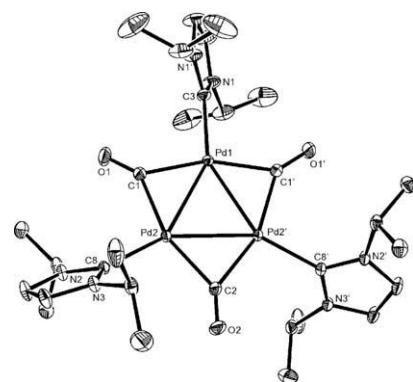
### Regular Papers

**Charles E. Ellul, Mary F. Mahon,  
Michael K. Whittlesey**

*J. Organomet. Chem.* 695 (2010) 6

Synthesis and structural characterisation of the palladium N-heterocyclic carbene cluster complexes  $[\text{Pd}_3(\mu\text{-CO})_3(\text{NHC})_3]$  and  $[\text{Pd}_3(\mu\text{-SO}_2)_3(\text{NHC})_3]$

Reaction of the N-heterocyclic carbene complexes  $[\text{Pd}(\text{IMes})_2\text{Cl}_2]$  and  $[\text{Pd}(\text{I}^t\text{Pr})_2\text{Cl}_2]$  with  $\text{KC}_8/\text{CO}$  affords the structurally characterised tris-palladium carbonyl clusters  $[\text{Pd}_3(\mu\text{-CO})_3(\text{IMes})_3]$  and  $[\text{Pd}_3(\mu\text{-CO})_3(\text{I}^t\text{Pr})_3]$ . The former reacts with  $\text{SO}_2$  to give  $[\text{Pd}_3(\mu\text{-SO}_2)_3(\text{IMes})_3]$ .

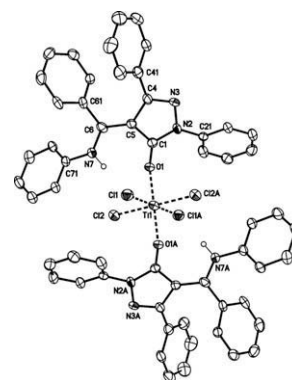


**Pertti Elo, Antti Pärssinen,  
Sari Rautiainen, Martin Nieger,  
Markku Leskelä, Timo Repo**

*J. Organomet. Chem.* 695 (2010) 11

Titanium complexes with modifiable pyrazolonato and pyrazolonato-ketimine ligands: Synthesis, characterization and ethylene polymerization behavior

Synthesis of new titanium dichloro complexes bearing modifiable pyrazolonato- and pyrazolonato-ketimine ligands is described. After MAO activation complexes were used in ethylene polymerization and it was found that both activity and the produced polymer were highly depended on the ligand framework.

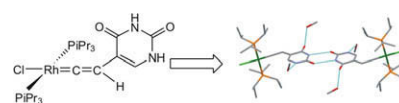


**Michael J. Cowley, Jason M. Lynam,  
Adrian C. Whitwood**

*J. Organomet. Chem.* 695 (2010) 18

Rhodium vinylidene and alkyne complexes containing a pendant uracil group

A series of rhodium complexes containing pendant uracil groups are described. A vinylidene complex is reported in which the nucleobase mediates the formation of a hydrogen bonded array in the solid state. Alkyne complexes are also described in which steric effects appear to control the extent of aggregation in solution.

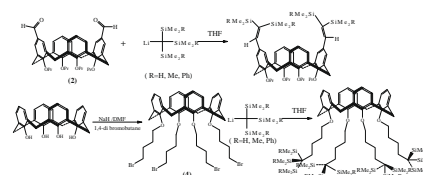


**Kazem D. Safa, Yones Mosaei Oskoei**

*J. Organomet. Chem.* 695 (2010) 26

Synthesis of novel calix[4]arenes containing organosilicon groups

(RSiMe<sub>2</sub>)<sub>3</sub>Cl<sub>i</sub> reagent were treated with formylated calixarene (**2**) and calixarene containing bromobutoxy groups (**4**), giving the corresponding novel calix[4]arenes containing organosilicon groups.

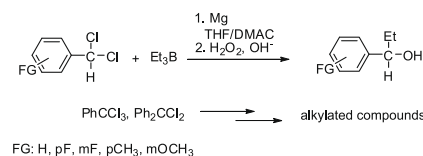


**Sylvie Condon, Jean-Yves Nédélec**

*J. Organomet. Chem.* 695 (2010) 32

Alternative method for alkylation of arylpolyhalomethanes with trialkylborane in the presence of magnesium

Reduction of benzal halide derivatives and  $\alpha,\alpha,\alpha$ -trichlorotoluene by magnesium powder in DMAc affords  $\alpha$ -halocarbanions which then react with triethylborane which then react with triethylborane to give alkylated products. After oxidation with H<sub>2</sub>O<sub>2</sub>-NaOH, secondary or tertiary alcohols are obtained. Under the same conditions, 1,1-diphenylpropane is obtained from  $\alpha,\alpha$ -dichlorodiphenylmethane.

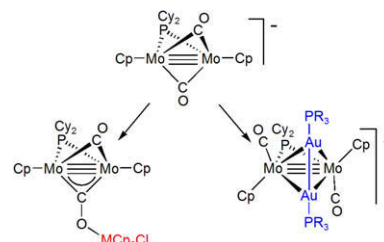


**M. Angeles Alvarez, M. Esther García,  
Alberto Ramos, Miguel A. Ruiz**

*J. Organomet. Chem.* 695 (2010) 36

Reactivity of the unsaturated dimolybdenum anion [Mo<sub>2</sub>( $\eta^5$ -C<sub>5</sub>H<sub>5</sub>)<sub>2</sub>( $\mu$ -PCy<sub>2</sub>)( $\mu$ -CO)]<sup>-</sup> towards electrophiles based on *p*- and *d*-block elements

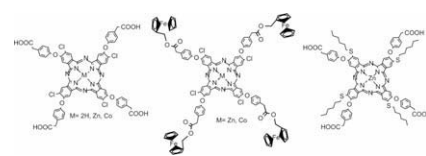
The title anion exhibits multisite reactivity when faced to electrophiles based on elements different from carbon, which can be incorporated either to the dimetal site, to give heterometallic clusters with Mo<sub>2</sub>M, Mo<sub>2</sub>Au<sub>2</sub> and Mo<sub>4</sub>Hg cores, or to the oxygen atom of the bridging carbonyl ligands, this leading to rather unstable silyloxycarbene and isocarbonyl-bridged derivatives.



**Meryem Çamur, Mustafa Bulut***J. Organomet. Chem.* 695 (2010) 45

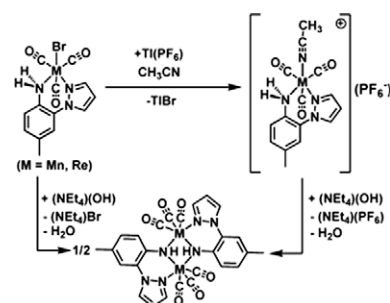
Phthalocyanines prepared from 4-chloro-/4-hexylthio-5-(4-phenyloxyacetic acid)-phthalonitriles and functionalization of the related phthalocyanines with hydroxymethylferrocene

The synthesis of new octasubstituted metal-free and metallo [M: Zn(II), Co(II)] phthalocyanines carrying phenyloxyacetic acid and chloro/hexylsulfanyl substituents on periphery were reported. Further reactions of corresponding phthalocyanines with hydroxymethylferrocene gave ferrocenyl substituted phthalocyanines. The compounds were characterized by elemental analysis, MALDI-TOF, FT-IR,  $^1\text{H}$  NMR, UV-Vis and fluorescence data.

**Brendan J. Liddle, Sarath Wanniarachchi, Sergey V. Lindeman, James R. Gardinier***J. Organomet. Chem.* 695 (2010) 53

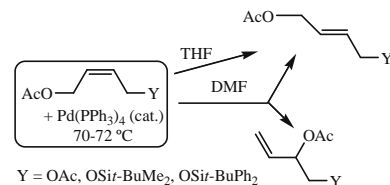
Tricarbonylrhenium(I) and manganese(I) complexes of 2-(pyrazolyl)-4-toluidine

Tricarbonyl group 7 metal complexes of the electroactive N,N-chelating 2-(pyrazolyl)-4-toluidine ligand,  $\text{H}(\text{pzAn}^{\text{Me}})$ , have been prepared and characterized in solution and in the solid state in an effort to ascertain whether switching behavior could be mediated by Brønsted acids and bases. The electronic properties and periodic trends are discussed.

**Anna Maria Zawisza, Jacques Muzart***J. Organomet. Chem.* 695 (2010) 62

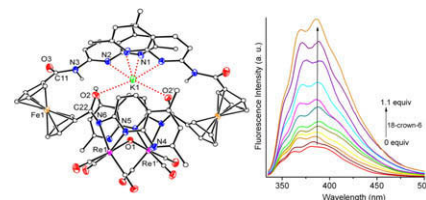
Palladium<sup>0</sup>-catalyzed isomerization of (Z)-1-functionalized-4-acetoxy-2-butenes: Solvent and substituent effects

The mechanism of the isomerization of the substrate is solvent dependent. The time to reach equilibrium between the three compounds, and their respective concentrations depend on the nature of Y and solvent.

**Nabanita Sadhukhan, Arup Sinha, Raj K. Das, Jitendra K. Bera***J. Organomet. Chem.* 695 (2010) 67

Multi-site coordination of ferrocenylamido-naphthyridine conjugates [5,7-dimethyl-1,8-naphthyridin-2-yl]amino}carbonyl]ferrocene and 1,1'-bis[5,7-dimethyl-1,8-naphthyridin-2-yl]amino}carbonyl]ferrocene

The organometallic host  $\{\text{Re}(\text{CO})_3\}_2(\mu\text{-OH})(\text{Fc}(\text{CONHNP})(\text{CONNP}))_2\}$  binds a  $\text{K}^+$  ion selectively and reversibly.

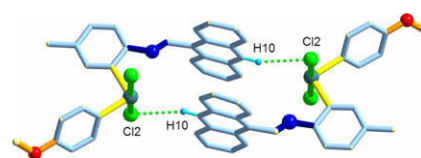


**Vadapalli Chandrasekhar, Arun Kumar, Mrituanjay D. Pandey**

*J. Organomet. Chem.* 695 (2010) 74

Imine-functionalized, fluorescent organo-mercury and -tellurium compounds

Organomercury and -tellurium compounds containing fluorescent side groups have been prepared. Photophysical studies of these compounds revealed that the fluorescence emission is not affected by mercury or tellurium.

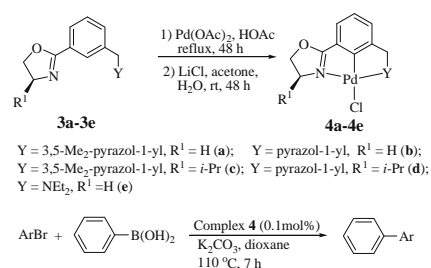


**Xin-Qi Hao, Ya-Nan Wang, Jun-Rui Liu, Kun-Lun Wang, Jun-Fang Gong, Mao-Ping Song**

*J. Organomet. Chem.* 695 (2010) 82

Unsymmetrical, oxazolinyl-containing achiral and chiral NCN pincer ligand precursors and their complexes with palladium(II)

A series of unsymmetrical, oxazolinyl-containing achiral and chiral NCN pincer ligand precursors (**3a–3e**) have been easily synthesized in four steps starting from commercially available isophthalaldehyde. The corresponding pincer Pd complexes (**4a–4e**) were prepared via direct C2 palladation of the precursors and used as efficient catalysts for Suzuki reactions.

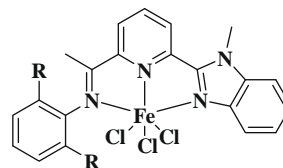


**Peng Hao, Yanjun Chen, Tianpengfei Xiao, Wen-Hua Sun**

*J. Organomet. Chem.* 695 (2010) 90

Iron(III) complexes bearing 2-(benzimidazole)-6-(1-aryliminoethyl)pyridines: Synthesis, characterization and their catalytic behaviors towards ethylene oligomerization and polymerization

A series of iron(III) complexes ligated by 2-(benzimidazole)-6-(1-aryliminoethyl)pyridines was synthesized, and showed good activities towards ethylene oligomerization and polymerization.

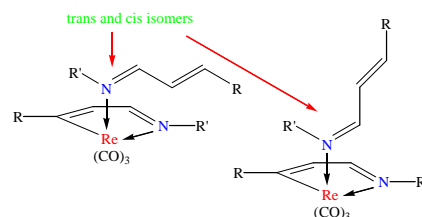


**Toshie Asamizu, Jaime L. Nielsen, Brian K. Nicholson**

*J. Organomet. Chem.* 695 (2010) 96

Cyclorhenated compounds derived from 1,4-diaryl-1-azabutadienes: preparation, structures and reactions

Reaction of PhCH<sub>2</sub>Re(CO)<sub>5</sub> with diaryl-azabutadienes gives five-membered cyclo-metallated rings. Concurrent substitution of a CO by an η<sup>1</sup>-azabutadiene ligand gives isomers which differ in the *trans/cis* conformation of the C=N bond, involving a metal-induced isomerisation.

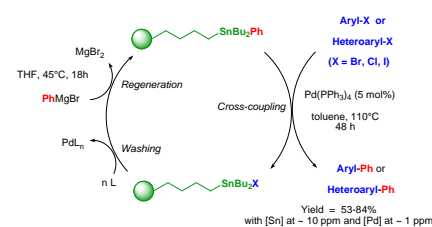


**Gaëlle Kerric, Erwan Le Grogneç,  
Françoise Zammattio, Michael Paris,  
Jean-Paul Quintard**

*J. Organomet. Chem.* 695 (2010) 103

Use of polymer-supported phenyltin for the creation of aryl–aryl or aryl–heteroaryl bonds via Stille cross-coupling reactions

An insoluble polymer-supported phenyltin was successfully used in Stille cross-coupling reactions with aryl- and heteroaryl-halides. Cross-coupling products were isolated in good to high yields with very low contamination by tin and palladium residues after removal of the residual supported organotin halide. The regeneration and recyclability of the supported phenyltin were also examined and proved to be possible after palladium cleaning of the grafted polymer.

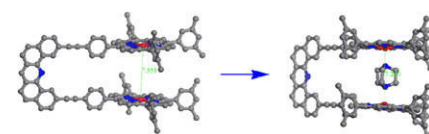


**Duckhyun Kim, Sewon Lee, Guohua Gao,  
Hong Seok Kang, Jaejung Ko**

*J. Organomet. Chem.* 695 (2010) 111

A molecular-clip-based approach to cofacial zinc–porphyrin complexes

We have synthesized molecular-clip-based cofacial zinc–porphyrin complexes. The complexes are shown to be new efficient receptors for the complexation of 1,4-diazabicyclo[2,2,2]octane, acridinium ions, 1,4,5,8-naphthalene tetracarboxylic dianhydride (NTDA) and 1,2,4,5-benzenetetracarboxylic dianhydride (BTDA).

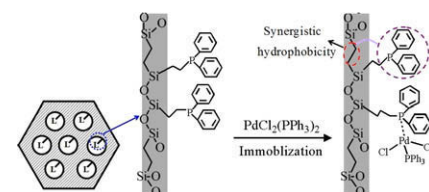


**Chunmei Kang, Jianlin Huang,  
Wenhan He, Fang Zhang**

*J. Organomet. Chem.* 695 (2010) 120

Periodic mesoporous silica-immobilized palladium(II) complex as an effective and reusable catalyst for water-medium carbon–carbon coupling reactions

A novel Pd(II) organometallic catalyst with periodic ordered mesoporous structure was prepared by covalent-bonding Pd(II) complex on PPh<sub>2</sub>-functionalized PMOs obtained via EISA method. The uniformly chelated ligands ensured high dispersion of active sites and the PMOs support enhanced the surface hydrophobicity, leading to the high catalytic efficiency in water-medium coupling reaction.

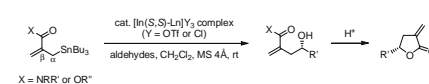


**Takamasa Suzuki, Jun-ichi Atsumi,  
Tetsuya Sengoku, Masaki Takahashi,  
Hidemi Yoda**

*J. Organomet. Chem.* 695 (2010) 128

Indium-catalyzed enantioselective allylation of aldehydes with  $\beta$ -carbonyl allylstannanes: An efficient synthetic method for chiral  $\alpha$ -methylene- $\gamma$ -lactones

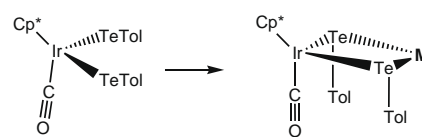
The catalytic enantioselective allylation of aldehydes with  $\beta$ -carbonyl allyltributylstannanes in the presence of chiral indium complexes gave the optically active homoallylic alcohols, which can be converted to the corresponding optically active  $\alpha$ -methylene- $\gamma$ -butyrolactones.



**Takafumi Nakagawa, Hidetake Seino,  
Yasushi Mizobe***J. Organomet. Chem.* 695 (2010) 137

A series of multinuclear homo- and heterometallic complexes with bridging telluroolato ligands derived from  $[\text{Cp}^*\text{Ir}(\text{CO})(\text{TeTol})_2]$  ( $\text{Cp}^* = \eta^5\text{-C}_5\text{Me}_5$ , Tol = *p*-tolyl)

Bis(telluroolato) complex  $[\text{Cp}^*\text{Ir}(\text{CO})(\text{TeTol})_2]$  (Tol = *p*-tolyl) was converted to a series of IrPd, IrPt, IrPt<sub>2</sub>, Ir<sub>2</sub>, IrRh, IrRu<sub>3</sub>, and IrRu complexes having dinuclear or trinuclear cores with bridging telluroolato ligands.



**M** = PdCl<sub>2</sub>, PtCl<sub>2</sub>, Cp\*RhCl, Cp\*IrCl, etc