

## Contents

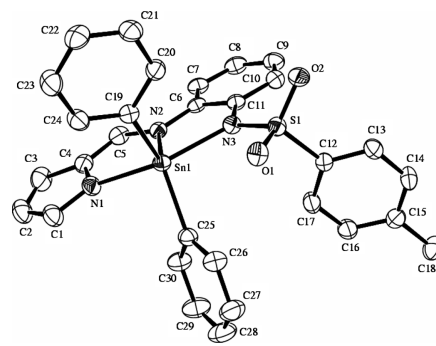
### Regular papers

**Elena Labisbal, Laura Rodríguez,  
Antonio Sousa-Pedrares, Mónica Alonso,  
Araceli Vizoso, Jaime Romero,  
José Arturo García-Vázquez, Antonio Sousa**

*J. Organomet. Chem.* 691 (2006) 1321

Synthesis, characterisation and X-ray structures of diorganotin(IV) and iron(III) complexes of dianionic terdentate Schiff base ligands

Diorganotin(IV)  $[\text{SnR}_2\text{L}^1]$  and  $[\text{SnR}_2\text{L}^2]$ , (R = Me, Ph) and iron(III),  $[\text{Et}_3\text{NH}][\text{FeL}_2^1]$  and  $[\text{Et}_3\text{NH}][\text{FeL}_2^2]$  complexes, of terdentate Schiff bases,  $\text{L}^1\text{H}_2$  and  $\text{L}^2\text{H}_2$ , have been synthesised. The structure of tin complexes shows the metallic atom to be five-coordinate in a distorted square pyramidal environment with the dianionic ligand acting in a terdentate manner. In the iron (III) complexes, the iron atom is hexacoordinate. Spectroscopy data for the ligands and complexes are discussed.

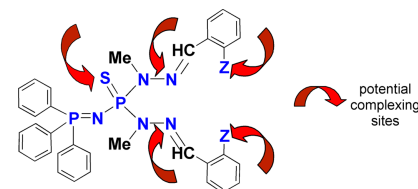


**Alexandrine Maraval, Germain Magro,  
Valérie Maraval, Laure Vendier,  
Anne-Marie Caminade, Jean-Pierre Majoral**

*J. Organomet. Chem.* 691 (2006) 1333

Functionalized phosphorus derivatives of Salpen-like compounds: Synthesis and preliminary complexation studies

The synthesis of a new class of Salpen analogues based on phosphorus derivatives is described. Their structure can be easily varied at will, to afford a variety of ligands, possessing up to five complexing sites. Depending on the type of substituents Z and the type of metals used (groups 10 and 11 elements), these compounds can act as mono-, or tetra-dentate ligands.

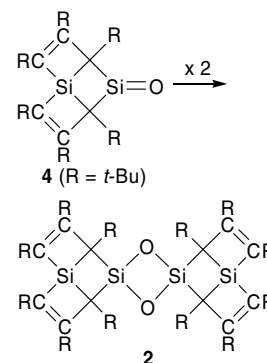


**Shinobu Tsutsui, Hiromasa Tanaka,  
Eunsang Kwon, Shigeki Matsumoto,  
Kenkichi Sakamoto**

*J. Organomet. Chem.* 691 (2006) 1341

Dimerization of a lattice-framework silanone into the corresponding 1,3-dioxa-2,4-disilatanes

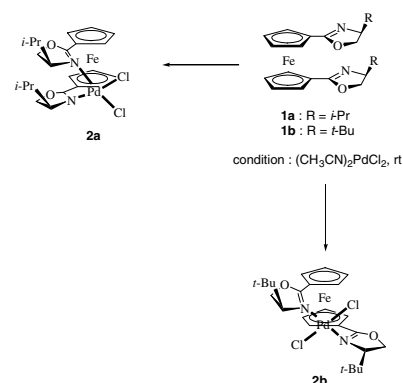
A lattice-framework silanone **4** was generated by the photoreaction of the corresponding disilene with mesitonitrile oxide. Silanone **4** was dimerized to give a mixture of the corresponding *dl*- and *meso*-1,3-dioxa-2,4-disilatanes **2**. DFT calculations suggested that the non-selective dimerization of *dl*-**4** to **2** is attributed to the irreversibility of the reaction.



**Sunwoo Lee***J. Organomet. Chem.* 691 (2006) 1347

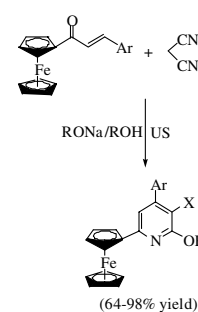
1,1'-Bis(oxazolinyl)ferrocene-based palladium catalysts: Synthesis, X-ray structures and applications in Suzuki and Heck coupling reactions

1,1'-Bis(oxazolinyl)ferrocene palladium complexes **2a** and **2b** were synthesized, and **2a** was found to have the *cis* coordination mode, whereas **2b** has the *trans* one. These complexes were employed as catalysts for Suzuki and Heck reactions. They showed high reactivities in both reactions, particularly, the catalyst **2a** afforded the coupled product of aryl bromide and phenylboronic acid at room temperature.

**Wei-Juan Zhou, Shun-Jun Ji, Zhi-Liang Shen***J. Organomet. Chem.* 691 (2006) 1356

An efficient synthesis of ferrocenyl substituted 3-cyanopyridine derivatives under ultrasound irradiation

An efficient tandem synthesis of 2-alkoxy-4-aryl-6-ferrocenyl-3-cyanopyridines via the condensation of ferrocenyl substituted chalcones with malonitrile in a freshly prepared sodium alkoxide solution under ultrasound irradiation was investigated. Especially noteworthy, the reaction of 1-ferrocenyl-3-(pyridin-2-yl)prop-2-ene-1-one with malonitrile interestingly afforded 2-alkoxy-4-pyridyl-6-ferrocenylpyridine, with the loss of CN group on the 3-position of pyridine ring was first observed.

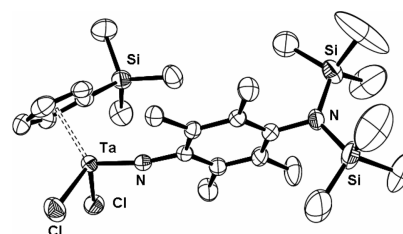


R = methyl, ethyl, *n*-propyl, *n*-butyl  
 Ar =  $\text{C}_6\text{H}_5$ , *p*- $\text{OMeC}_6\text{H}_4$ , 3-thienyl etc, then X = CN  
 Ar = 2-pyridyl, then X = H

**Antonio Antiñolo, Iván Dorado,  
 Mariano Fajardo, Andrés Garcés,  
 Marek M. Kubicki,  
 Carmen López-Mardomingo,  
 Antonio Otero, Sanjiv Prashar**
*J. Organomet. Chem.* 691 (2006) 1361

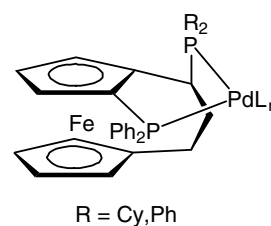
Synthesis and reactivity of new mono- and dinuclear niobium and tantalum imido complexes: X-ray crystal structure of  $[\text{Ta}(\eta^5\text{-C}_5\text{H}_4\text{SiMe}_3)\text{Cl}_2\{\text{=NC}_6\text{Me}_4\text{-4-(N(SiMe}_3)_2)\}]$

The preparation of mono- and dinuclear niobium and tantalum imido complexes and their characterization and reactivity is described.


**M. Carmen Carrión, Félix A. Jalón,  
 Ana López-Agenjo, Blanca R. Manzano,  
 Walter Weissensteiner, Kurt Mereiter**
*J. Organomet. Chem.* 691 (2006) 1369

Pd(0) and Pd(II) derivatives with heteroannularly bridged chiral ferrocenyl diphosphine ligands – A stereochemical analysis

New Pd(0) and Pd(II) complexes have been obtained using chiral ferrocenyl diphosphine ligands. For the olefin, allyl or chloromethyl derivatives the presence of isomers and their stereochemistry has been studied. The conformation of the rigid ligands is the same in solution and in the solid state (X-ray diffraction study).

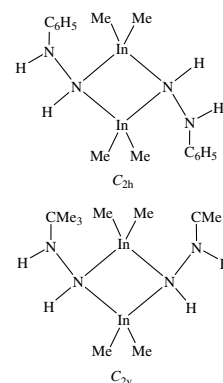


Werner Uhl, Christian H. Emden,  
Werner Massa

*J. Organomet. Chem.* 691 (2006) 1382

Dimethylindium hydrazides  $[\text{Me}_2\text{In-NH-NHR}]_2$  ( $\text{R} = \text{CMe}_3, \text{C}_6\text{H}_5$ )

Dimethylindium hydrazides were formed by the treatment of trimethylindium with the corresponding hydrazines; they gave dimers with *trans*- or *cis*-arrangement of the exocyclic N–N bonds.

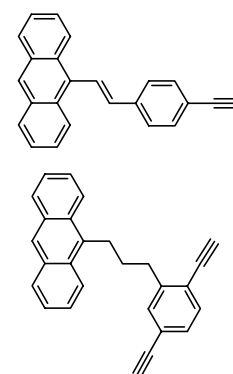


Ian Cade, Nicholas J. Long,  
Andrew J.P. White, David J. Williams

*J. Organomet. Chem.* 691 (2006) 1389

Synthesis and spectroscopy of anthracene-containing linear and 'T'-shaped  $\pi$ -conjugated ligands

A range of new  $\pi$ -conjugated ligands containing a  $\pi$ -conjugated organic framework and an antenna group have been synthesised and characterised by X-ray crystallography and NMR studies, with particular regard to possible electronic communication.

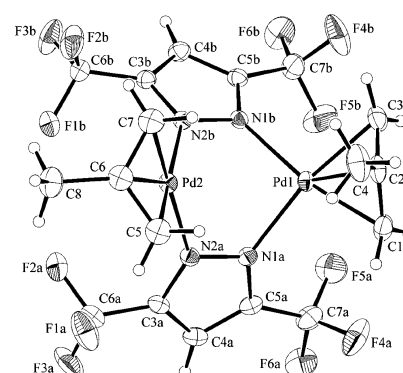


A. Singhal, R. Mishra, S.K. Kulshreshtha,  
Paul V. Bernhardt, Edward R.T. Tiekink

*J. Organomet. Chem.* 691 (2006) 1402

Dimeric allylpalladium(II) complexes with pyrazolate bridges: Synthesis, characterization, structure and thermal behaviour

Dimeric allylpalladium(II) complexes bridged by pyrazolate ligands have been prepared and structurally characterized. Their thermal behaviour has been investigated. The complexes are potential precursors for palladium thin films and palladium nanoparticles at moderately low temperatures.

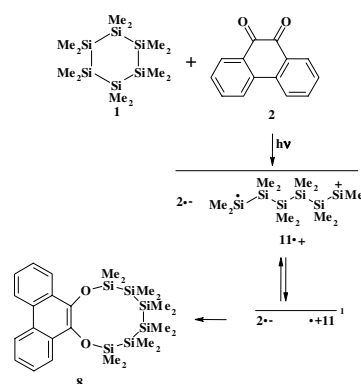


Marc B. Taraban, Nikolay E. Polyakov,  
Olga S. Volkova, Leonid V. Kuibida,  
Tatyana V. Leshina, Michael P. Egorov,  
Oleg M. Nefedov

*J. Organomet. Chem.* 691 (2006) 1411

Paramagnetic intermediates in the photoinduced reaction between dodecamethylcyclohexasilane and 9,10-phenanthraquinone: Time-resolved CIDNP study

Photoinduced interaction of dodecamethylcyclohexasilane *cyclo*-( $\text{Me}_2\text{Si}$ )<sub>6</sub> **1** and 9,10-phenanthraquinone **2** has been shown to proceed via triplet pair of corresponding radical ions resulting in an unusual unstable 10-membered cyclic dioxahexasilicene **8**.

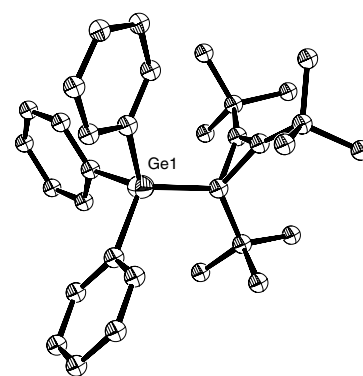


**Zi-Ye Hua, Joel T. Mague, Mark J. Fink**

*J. Organomet. Chem.* 691 (2006) 1419

Synthesis and solid state structures of tri-*t*-butyl-cyclopropenyl derivatives of main group elements:  $\text{Cyp}^*\text{MPh}_3$  (M = Si, Ge, Sn)

The reaction of  $\text{Ph}_3\text{MLi}$  (M = Si, Ge, and Sn) with tri-*t*-butylcyclopropenium tetrafluoroborate ( $\text{Cyp}^*\text{BF}_4^-$ ) gives the cyclopropenyl compounds  $\text{Cyp}^*\text{MPh}_3$  as air and moisture stable solids. The X-ray crystal structures of all three of these compounds were obtained. The M–C( $\text{Cyp}^*$ ) bond distances increase with the order: Sn–C (2.19 Å) > Ge–C (2.00 Å) > Si–C (1.91 Å).



**Francesca Cicogna, Giovanni Ingrosso, Massimo Marcaccio, Demis Paolucci, Francesco Paolucci, Luca Trillini**

*J. Organomet. Chem.* 691 (2006) 1425

Synthesis of 2-picolyl functionalized  $\eta^5$ -cyclopentadienyl derivatives of rhodium(I) and iridium(I) and preliminary study of their reaction with ruthenium(II) for assembling hetero-bimetallic complexes

Four 2-picolylcyclopentadienyl derivatives of rhodium(I) and iridium(I) were prepared ( $\text{L}_2 = 1,5\text{-COD}$ ;  $\text{L} = \text{CO}$ ), and characterized by elemental analysis, MS,  $^1\text{H}$  NMR, UV–Vis spectroscopy, FT-IR, and cyclic voltammetry, and used for assembling hetero-bimetallic complexes.

