

## Contents

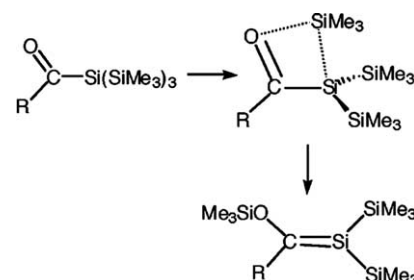
### Regular papers

**Joji Ohshita, Hiroaki Takahashi,  
Atsutaka Kunai, Kenji Komaguchi,  
Akinobu Naka, Mitsuo Ishikawa**

*J. Organomet. Chem.* 691 (2006) 541

Kinetic studies on Brook-type isomerization of acylpolysilanes to silenes

First-order rate constants of Brook-type isomerization of acylpolysilanes to silenes at various temperatures were determined. Their Eyring plots gave kinetic parameters of  $\Delta H^\ddagger = 26.6\text{--}29.4\text{ kcal mol}^{-1}$  and  $\Delta S^\ddagger = -11.5$  to  $-14.6\text{ cal mol}^{-1}\text{ K}^{-1}$ , in good agreement with a mechanism involving a four-centered transition state.

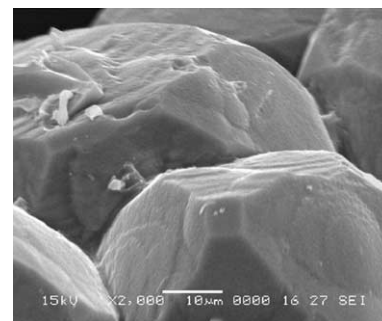


**Qian-Ming Wang, Bing Yan**

*J. Organomet. Chem.* 691 (2006) 545

Terbium/zinc luminescent hybrid siloxane-oxide materials bridged by novel ureasils linkages

Covalently bonded silicate/modified aromatic acid luminescent composites have been prepared from 3-(triethoxysilyl)-propyl isocyanate (TEPIC) grafted salicylic acid and central metal ions (Tb, Zn) by hydrolysis and polycondensation processes of ethoxysilyl groups.

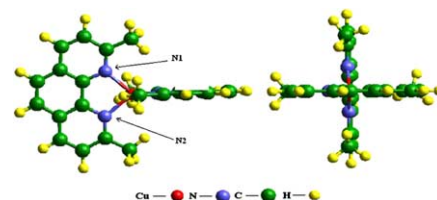


**Xiaojing Wang, Chen Lv, Michihisa Koyama,  
Momoji Kubo, Akira Miyamoto**

*J. Organomet. Chem.* 691 (2006) 551

Investigation of charge transfer and structural distortions during photo-induced excitation of cuprous bis-2,9-dimethyl-1,10-phenanthroline complex by density functional theory

The structural distortions and charge transfer processes that occurred in the complex of cuprous(I) bis-2,9-dimethyl-1,10-phenanthroline ( $\text{Cu}(\text{dmp})_2^+$ ) upon oxidation to copper(II),  $\text{Cu}(\text{dmp})_2^{2+}$ , through an excited state of  $\text{Cu}(\text{dmp})_2^+$  were investigated by density functional theory. The intramolecular electron transfer from central metal-to-ligand (MLCT) upon the irradiation of light energy. The bulky substituents in 2- and 9-positions of the phenanthroline ligands can restrain the structural distort and decrease nonradiative decay rate.

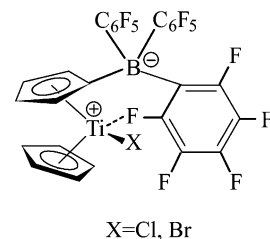


**L.I. Strunkina, M.Kh. Minacheva,  
K.A. Lyssenko, V.V. Burlakov, W. Baumann,  
P. Arndt, B.N. Strunin, V.B. Shur**

*J. Organomet. Chem.* 691 (2006) 557

Interaction of titanium(III) zwitterionic complex  $\text{Cp}[\eta^5\text{-C}_5\text{H}_4\text{B}(\text{C}_6\text{F}_5)_3]\text{Ti}$  with organic halides: Synthesis and X-ray crystal structure determination of zwitterionic titanocene monohalides  $\text{Cp}[\eta^5\text{-C}_5\text{H}_4\text{B}(\text{C}_6\text{F}_5)_3]\text{TiX}$  ( $\text{X} = \text{Cl}, \text{Br}$ ) and their catalytic activity in the ring-opening polymerization of  $\epsilon$ -caprolactone

The synthesis of zwitterionic titanocene monohalides  $\text{Cp}[\eta^5\text{-C}_5\text{H}_4\text{B}(\text{C}_6\text{F}_5)_3]\text{TiX}$  ( $\text{X} = \text{Cl}, \text{Br}$ ) by the interaction of  $\text{Cp}[\eta^5\text{-C}_5\text{H}_4\text{B}(\text{C}_6\text{F}_5)_3]\text{Ti}$  (**1**) with  $\text{CCl}_4$  and 1,2-dibromoethane, respectively, is reported. The synthesized zwitterions contain a coordinative bond between the *ortho*-fluorine atom of one of the  $\text{C}_6\text{F}_5$  substituents and the titanium centre. The both zwitterions catalyze the ring-opening polymerization of  $\epsilon$ -caprolactone. The interaction of **1** with *n*-propyl iodide affords  $\text{Cp}_2\text{TiI}_2$ ,  $\text{B}(\text{C}_6\text{F}_5)_3$  and propylene. The mechanism of this interesting reaction is discussed.

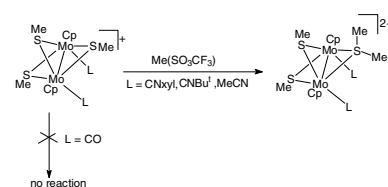


**Nolwenn Cabon, François Y. Pétilion,  
Philippe Schollhammer, Jean Talarmin,  
Kenneth W. Muir**

*J. Organomet. Chem.* 691 (2006) 566

Methylation sites in tris( $\mu$ -thiolato)dimolybdenum(III) complexes

The manner in which the electronic properties of the ancillary ligands  $L$  influence the site of the reaction of tris(thiolato)-bridged complexes,  $[\text{Mo}_2\text{Cp}_2(\mu\text{-SMe}_3\text{L}_2)(\text{BF}_4)]$ , with methyl triflate has been investigated.

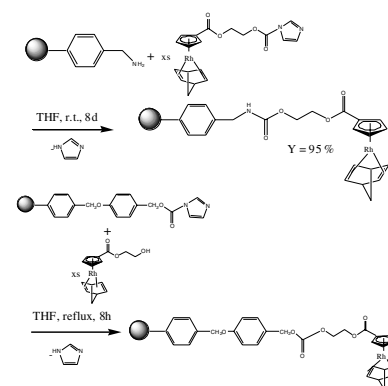


**Luigi Busetto, Pier Luigi Buldini,  
M. Cristina Cassani, Rita Mazzoni**

*J. Organomet. Chem.* 691 (2006) 573

Clean and efficient synthesis of air stable polymer-supported alkoxy carbonylcyclopentadienyl rhodium(I) complexes

The facile synthesis of polymer-supported alkoxy carbonylcyclopentadienyl rhodium(I) complexes obtained through immobilization of  $[\text{Rh}\{\text{C}_5\text{H}_4\text{CO}_2(\text{CH}_2)_2\text{O}_2\text{-C-Im}\}(\text{NBD})]$  (**2**) ( $\text{Im} = \text{imidazole}$ ) on an (aminomethyl)polystyrene resin is reported. An alternative approach toward the grafting of  $[\text{Rh}\{\text{C}_5\text{H}_4\text{CO}_2(\text{CH}_2)_2\text{OH}\}(\text{NBD})]$  (**1**) on a Wang resin is also discussed.



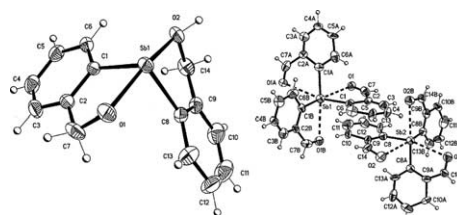
**Pankaj Sharma, Diego Pérez, Noé Rosas,  
A. Cabrera, A. Toscano**

*J. Organomet. Chem.* 691 (2006) 579

New stibines containing acetal and formyl group: Platinum complex and unexpected oxastibol derivative

A new tertiary stibine ligand (**1**) containing acetal group at the *ortho*-position has been synthesized. This new stibine was then complexed with  $\text{PtCl}_4^{2-}$  to obtain *trans*- $\text{PtCl}_2\text{L}_2$  (**2**), where stibine acts as a monodentate ligand.

The acetal was hydrolyzed in a slightly acidic medium and forms a very new stibine (**3**) containing formyl group at the *ortho* position. When (**3**) was reduced with  $\text{NaBH}_4$  an unusual oxastibol (**4**) derivative was obtained under the experimental conditions used. The molecular structures of (**2**), (**3**) and (**4**) were determined. To the best of our knowledge this is the first report on organoantimony compounds containing carbonyl groups though their phosphorus and bismuth analogues are well known. Compound (**2**) shows helicoidal chirality, which is a very new concept in antimony chemistry.

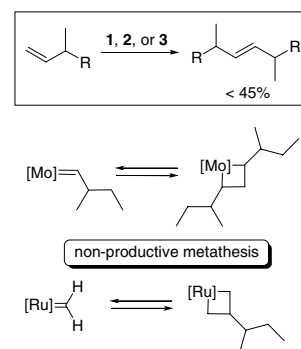


**Florence C. Courchay, Travis W. Baughman, Kenneth B. Wagener**

*J. Organomet. Chem.* 691 (2006) 585

Understanding the effect of allylic methyls in olefin cross-metathesis

The homometathesis of olefins containing allylic methyls is impeded by steric interactions within the ligand sphere of the catalytic intermediate, as proven by a series of NMR spectroscopy experiments using Schrock's molybdenum, and Grubbs' ruthenium catalysts.

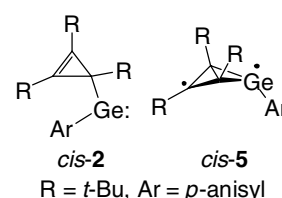


**Shinobu Tsutsui, Hiromasa Tanaka, Eunsang Kwon, Shigeki Matsumoto, Kenkichi Sakamoto**

*J. Organomet. Chem.* 691 (2006) 595

Experimental evidence and bond characterization of a cyclopropenylgermylene

The *p*-anisyl(1,2,3-tri-*tert*-butylcycloprop-2-en-1-yl)germylene (**2**) was generated by reduction of the corresponding dichlorogermene. DFT calculations revealed that the *cis*-2-germabicyclo[1.1.0]butane-like structure *cis*-**5** is 8.0 kJ/mol more stable than *cis*-**2**. The NBO analysis revealed that *cis*-**5** has a 2-germabicyclo[1.1.0]-butane diradical character.



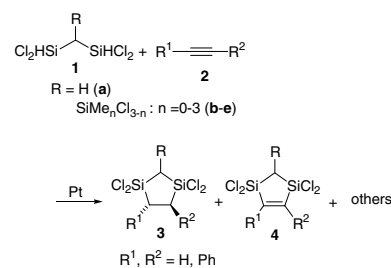
**Son Thanh Phan, Weon Cheol Lim, Joon Soo Han, Il Nam Jung, Bok Ryul Yoo**

*J. Organomet. Chem.* 691 (2006) 604

Platinum-catalyzed double silylations of alkynes with bis(dichlorosilyl)methanes

Reaction of alkynes such as ethene (**2a**), phenylethene (**2b**); 1,2-diphenylethene (**2c**) with bis(dichlorosilyl)methanes  $RCH(SiHCl_2)_2$ :  $R = H$  (**1a**),  $SiMe_nCl_{3-n}$ :  $n = 0$  (**1b**), 1 (**1c**), 2 (**1d**), 3

(**1e**) in the presence of Speier's catalyst gave one of two type products of 1,3-disilacyclopentanes **3** and 1,3-disilacyclopent-4-enes **4**. Reaction of **1a** with **2a–c** at 80 °C gave compounds **3** in 33–84% yields. The reaction with **2c** gave **3ac** in the highest yield (84%). Reaction of **1b–e** with **2c** under the same conditions gave compounds **3** in 38–98% yields. The yields decreased in following order:  $n = 1 > 2 > 3 > 0$ . Reactions of **1c** with simple **2a** and terminal **2b** under the same conditions gave **4ca** and **4cb** in 91% and 57% yields, respectively, while internal alkyne **2c** afforded **3cc** in 98% yield.

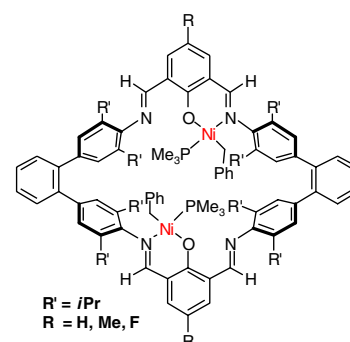


**Sung Jae Na, Dae June Joe, Sujith S, Won-Sik Han, Sang Ook Kang, Bun Yeoul Lee**

*J. Organomet. Chem.* 691 (2006) 611

Bimetallic nickel complexes of macrocyclic tetraaminodiphenols and their ethylene polymerization

34-Membered macrocyclic compounds of tetraaminophenol and their bimetallic nickel complexes are prepared. The nickel complexes show good activity for ethylene polymerization.

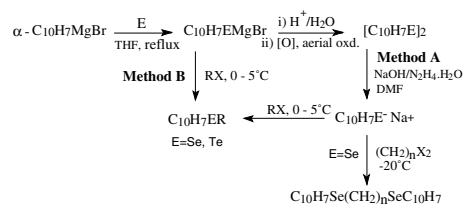


**K.K. Bhasin, Neelam Singh, Rishu Dhiman, Ganga Ram, Shivani, S.K. Mehta, R.J. Butcher**

*J. Organomet. Chem.* 691 (2006) 621

Synthesis and characterization of some  $\alpha$ -naphthyl selenium/tellurium derivatives: X-ray crystal structure of benzyl-1-naphthyl selenide and diphenylmethyl-1-naphthyl selenide

The synthesis and characterization of a large number of alkyl-1-naphthyl selenides/tellurides and some  $\alpha$ -bis(1-naphthylseleno)alkanes (**1–14**) has been reported. Interpretation of  $^1\text{H}/^{13}\text{C}$  NMR spectra and assignment of individual resonances for tris(1-naphthylseleno)methane have been done with the help of [ $^1\text{H}-^1\text{H}$ ] and [ $^1\text{H}-^{13}\text{C}$ ] correlation spectroscopy and  $^{77}\text{Se}$  NMR of most of the compounds studied has been reported.

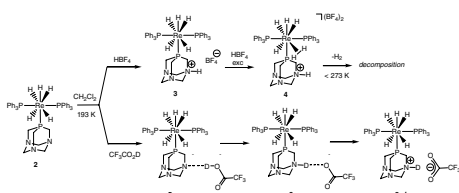


**Sandra Bolaño, Luca Gonsalvi, Pierluigi Barbaro, Alberto Albinati, Silvia Rizzato, Evgenii Gutsul, Natalia Belkova, Lina Epstein, Elena Shubina, Maurizio Peruzzini**

*J. Organomet. Chem.* 691 (2006) 629

Synthesis, characterization, protonation studies and X-ray crystal structure of  $\text{ReH}_5(\text{PPh}_3)_2(\text{PTA})$  (PTA = 1,3,5-triaza-7-phosphaadamantane)

The protonation of the novel rhenium pentahydride  $[\text{ReH}_5(\text{PPh}_3)_2(\text{PTA})]$  (**2**) with  $\text{HBF}_4 \cdot \text{Et}_2\text{O}$  at 183 K affords  $[\text{ReH}_5(\text{PPh}_3)_2\{\text{PTA}(\text{H})\}]^+$  (**3**) or  $[\text{ReH}_4(\eta^2\text{-H}_2)(\text{PPh}_3)_2\{\text{PTA}(\text{H})\}]^{2+}$  (**4**), depending on the  $\text{H}^+/2$  ratio, as confirmed by  $^1\text{H}$  NMR and  $T_1$  analysis. IR monitoring of the reaction between **2** and  $\text{CF}_3\text{COOD}$  at low temperature shows the formation of the hydrogen bonded complexes  $[\text{ReH}_5(\text{PPh}_3)_2\{\text{PTA} \cdots \text{DOC}(\text{O})\text{CF}_3\}]$  (**5**) and  $[\text{ReH}_5(\text{PPh}_3)_2\{\text{PTA}(\text{D}) \cdots \text{OC}(\text{O})\text{CF}_3\}]$  (**6**) preceding the proton transfer step eventually leading to **3**.

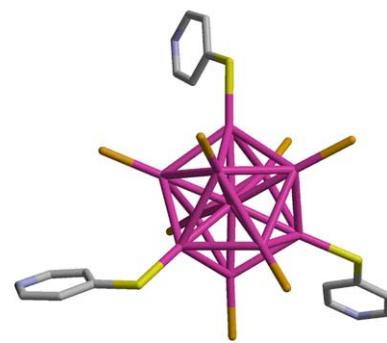


**Keiko Nunokawa, Satoru Onaka, Mitsuhiro Ito, Makoto Horibe, Tetsu Yonezawa, Hiroshi Nishihara, Tomoji Ozeki, Hirokazu Chiba, Seiji Watase, Masami Nakamoto**

*J. Organomet. Chem.* 691 (2006) 638

Synthesis, single crystal X-ray analysis, and TEM for a single-sized  $\text{Au}_{11}$  cluster stabilized by SR ligands: The interface between molecules and particles

$\text{Au}_{11}(\text{S-4-NC}_5\text{H}_4)_3(\text{PPh}_3)_7$  has been synthesized by  $\text{NaBH}_4$  reduction of  $\text{Au}(\text{S-py})(\text{PPh}_3)$  or by treating  $[\text{Au}_9(\text{PPh}_3)_8](\text{NO}_3)_3$  with  $\text{HS-py}$  in good yield, for which the structure has been determined by single crystal X-ray diffraction and TEM for the first time as an SR-modified Au cluster with a sub-nanometer size.

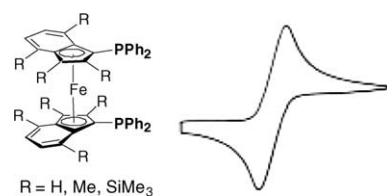


**Owen J. Curnow, Glen M. Fern, Elizabeth M. Jenkins**

*J. Organomet. Chem.* 691 (2006) 643

Electrochemistry and UV/visible spectroscopy of phosphino-substituted bis( $\eta^5$ -indenyl)iron(II) complexes

Several phosphino-substituted diindenyl ferrocene complexes have been characterized by UV/vis spectroscopy and cyclic voltammetry. Remarkably, in contrast to dppf, reversible cyclic voltammograms are observed for these compounds in dichloromethane solvent.

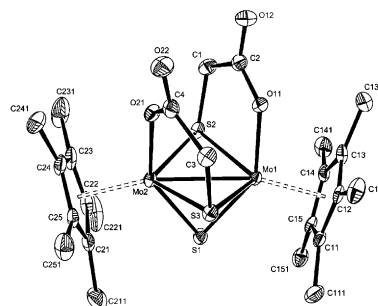


**Funda Demirhan, Gülnur Taban, Miguel Baya, Chiara Dinoi, Jean-Claude Daran, Rinaldo Poli**

*J. Organomet. Chem.* 691 (2006) 648

Reduction of  $[\text{Cp}^*\text{Mo}_2\text{O}_5]$  by thioglycolic acid in an aqueous medium: Synthesis and structure of  $[\{\text{Cp}^*\text{Mo}(\mu\text{-SCH}_2\text{COO})\}_2(\mu\text{-S})]$

Compound  $[\text{Cp}_2^*\text{Mo}_2\text{O}_5]$  reacts with thioglycolic acid,  $\text{HSCH}_2\text{COOH}$ , in an acidic ( $\text{CF}_3\text{COOH}$ ) mixed water–methanol solvent, to yield compound  $[\{\text{Cp}^*\text{Mo}(\mu\text{-SCH}_2\text{CO}_2)\}_2(\mu\text{-S})]$ . During this reaction, the thioglycolic acid acts as a reducing agent, as a ligand, and provides a sulfide ion for the Mo–S–Mo bridge. The molecular structure of the product can be described as containing two four-legged piano stools that share three legs. The Mo–Mo distance of 2.792(7) Å indicates metal–metal bonding, in agreement with the compound diamagnetism.

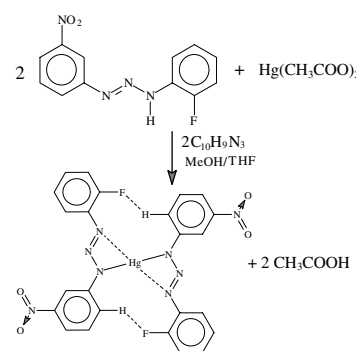


**Manfredo Hörner, Gelson Manzoni de Oliveira, Janaina Sartori Bonini, Hertton Fenner**

*J. Organomet. Chem.* 691 (2006) 655

Supramolecular assemblages through metal- $\eta^4$ -arene  $\pi$ -interactions: Synthesis and X-ray characterization of  $\{\text{Hg}^{\text{II}}[\text{NNN}(\text{PhR})_2]_2\}_n$  ( $\text{R} = \text{NO}_2, \text{F}$ ), a bis diaryl-substituted triazenide complex polymer of  $\text{Hg}(\text{II})$

3-(2-fluorophenyl)-1-(3-nitrophenyl)-triazene react with mercury(II) acetate in tetrahydrofuran in the presence of 2,2'-bipyridilamine to give yellow blocks of polymeric  $\{\text{Hg}^{\text{II}}[\text{NNN}(\text{PhR})_2]_2\}_n$  ( $\text{R} = \text{NO}_2, \text{F}$ ). The  $\text{Hg}(\text{II})$  ions are the inversion centers of  $\{\text{Hg}^{\text{II}}[\text{NNN}(\text{PhR})_2]_2\}$  moieties which are assembled as unidimensional chains linked through metallocene alike  $\text{Hg}-\eta^2, \eta^2$ -arene  $\pi$ -interactions.

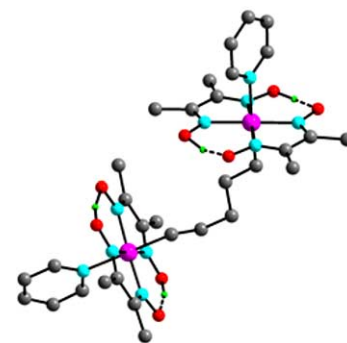


**Xin Zhang, Yizhi Li, Yuhua Mei, Huilan Chen**

*J. Organomet. Chem.* 691 (2006) 659

$\mu$ -Polymethylene bridged dicobaloximes: Structural, photolysis and thermal decomposition properties

Crystal structures of  $\text{py}(\text{dmgH})_2\text{Co}(\text{CH}_2)_n\text{-Co}(\text{dmgH})_2\text{py}$  ( $n = 4, 5, 6$ ) have been determined by X-ray diffraction. Their structural features are compared with those reported in monocobaloxime complexes and oligomethylene-bridged vitamin  $\text{B}_{12}$  dimer. The photolysis and thermal decomposition properties have been investigated by UV–Vis and TGA techniques, respectively.

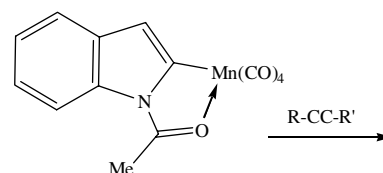


**Gary J. Depree, Lyndsay Main, Brian K. Nicholson, Nicholas P. Robinson, Geoffrey B. Jameson**

*J. Organomet. Chem.* 691 (2006) 667

Synthesis and alkyne-coupling chemistry of cyclomanganated 1- and 3-acetylindoles, 3-formylindole and analogues

Acetyl- and formyl-indoles have been cyclomanganated, and the resulting complexes have been coupled with a range of alkynes.

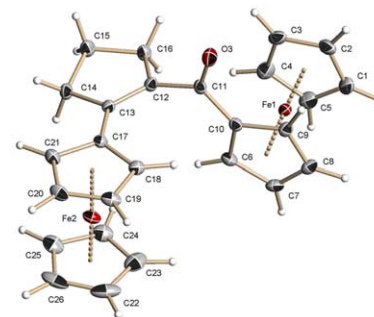


**Carolyn A. Pugh, Michael W. Lufaso,  
Matthias Zeller, Timothy R. Wagner,  
Larry S. Curtin**

*J. Organomet. Chem.* 691 (2006) 680

The synthesis, spectroscopic, electrochemical and X-ray diffraction characterization of novel bridged ferrocene precursors for use in self-assembled monolayers

The reaction between adipoyl chloride with 2 equiv. of ferrocene in the presence of aluminum chloride yielded 1,6-diferrocenylhexane-1,6-dione (**I**) and an unusual aldol condensation product 1-ferrocenylcarbonyl-2-ferrocenylcyclopentene. The reduction of compound (**I**) under Clemmensen reaction conditions yielded the fully reduced product 1,6-diferrocenylhexane.

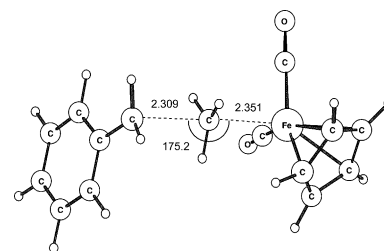


**Thiam Seong Chong, Tsz Sian Chwee,  
Weng Kee Leong, Ming Wah Wong,  
Wai Yip Fan**

*J. Organomet. Chem.* 691 (2006) 687

Methyl abstraction kinetics of  $\text{CpFe}(\text{CO})_2\text{Me}$  using the benzyl radical clock

Measurement of the rate constant for the methyl abstraction reaction of  $\text{CpFe}(\text{CO})_2\text{Me}$  has been accomplished using a benzyl radical clock and yielding a value of  $(1.1 \pm 0.2) \times 10^5 \text{ M}^{-1} \text{ s}^{-1}$  at room temperature.

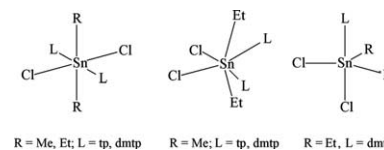


**M. Assunta Girasolo, Domenico Schillaci,  
Clelia Di Salvo, Giampaolo Barone,  
Arturo Silvestri, Giuseppe Ruisi**

*J. Organomet. Chem.* 691 (2006) 693

Synthesis, spectroscopic characterization and in vitro antimicrobial activity of diorgano-tin(IV) dichloride adducts with [1,2,4]triazolo-[1,5-*a*]pyrimidine and 5,7-dimethyl-[1,2,4]triazolo-[1,5-*a*]pyrimidine

Organotin(IV) dichloride adducts of [1,2,4]triazolo-[1,5-*a*]pyrimidine (tp) and 5,7-dimethyl-[1,2,4]triazolo-[1,5-*a*]pyrimidine (dmtp) were synthesized and spectroscopically characterized. The ligands coordinate to tin through the nitrogen atom at position 3. The 1:2 complexes have all-*trans* octahedral structures, except  $\text{Et}_2\text{SnCl}_2(\text{tp})_2$ , characterized by a skew-trapezoidal structure. The 1:1 complexes adopt trigonal bipyramidal structures, with the organic groups on the equatorial plane. [*n*- $\text{Bu}_2\text{SnCl}_2(\text{dmtp})$ ] has interesting properties as anti Gram-positive and antibiofilm agent.

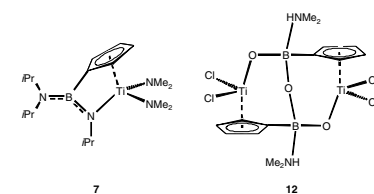


**Holger Braunschweig, Frank M. Breitling,  
Christian Burschka, Fabian Seeler**

*J. Organomet. Chem.* 691 (2006) 702

Derivatisation of boryl substituted titanium half-sandwich complexes – Molecular structures of  $[\text{Ti}\{\eta^5\text{-C}_5\text{H}_4\text{B}(\text{N}i\text{Pr}_2)\text{N}(\text{H})\text{-}t\text{Bu}\}\text{Cl}_2(\text{NMe}_2)]$  and  $[\{\text{TiCl}_2(\mu\text{-}\{\text{OB}(\text{NHMe}_2)\text{-}\eta^5\text{-C}_5\text{H}_4\})\}_2\text{-}\mu\text{-O}]$

The chemistry of Ti half-sandwich complexes was studied, which led to boron based constrained geometry complexes (e.g., **7**) and B–O-bridged dinuclear Ti-species such as **12**.

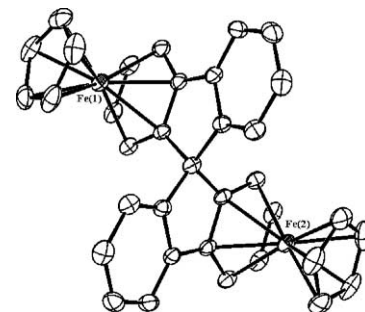


**Richard E. Douthwaite, Neil Guillaume,  
Adrian C. Whitwood**

*J. Organomet. Chem.* 691 (2006) 711

Synthesis and structures of metallocene complexes of iron(II) and ruthenium(II) derived from 9,9'-spirobifluorene

Reaction between 9,9'-spirobifluorene and  $[\text{CpM}]^+$  equivalents (where  $M = \text{Fe}$  and  $\text{Ru}$ ) gives mono and bimetallic complexes  $[\text{CpMSBF}][\text{PF}_6]$  and  $[(\text{CpM})_2\text{SBF}][\text{PF}_6]_2$ , where the  $\text{CpM}$  moiety exhibits distorted  $\eta^6$ -coordination to an arene face of SBF. The bimetallic complexes are found to contain equimolar quantities of  $\text{C}_1$  and  $\text{C}_2$  isomers.

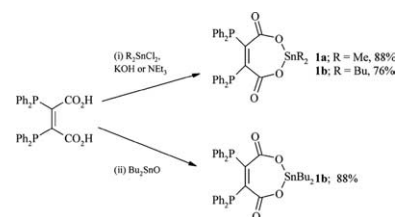


**Richard J. Bowen, Judy Caddy,  
Manuel A. Fernandes, Marcus Layh,  
Messai A. Mamo, Reinout Meijboom**

*J. Organomet. Chem.* 691 (2006) 717

Synthesis and characterisation of dialkyltin 2,3-bis(diphenylphosphino)maleic acid adducts

The novel dialkyltin 2,3-bis(diphenylphosphino)maleic acid adducts ( $\text{R}_2\text{Sn}(\text{O},\text{O}'\text{-dpmaa})$ ) [**1a**,  $\text{R} = \text{Me}$ ; **1b**,  $\text{R} = \text{Bu}$ ; dpmaa = bis(diphenylphosphino)maleic acid] were synthesised from dpmaa and  $\text{R}_2\text{SnCl}_2$  or  $\text{Bu}_2\text{SnO}$  and fully characterised including X-ray crystallography. The latter revealed for both complexes the existence of cyclic trimers in the solid state.

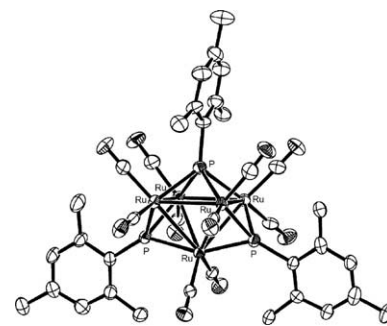


**Taeko Kakizawa, Hisako Hashimoto,  
Hiromi Tobita**

*J. Organomet. Chem.* 691 (2006) 726

Synthesis and structural characterization of mesitylphosphinidene-capped ruthenium and osmium clusters

Mesitylphosphinidene-capped tri-, tetra-, and pentaruthenium clusters were obtained by the thermal reaction of  $[\text{Ru}_3(\text{CO})_{12}]$  with  $\text{PH}_2\text{Mes}$ . The pentaruthenium cluster  $[\text{Ru}_5(\text{CO})_{10}\text{H}_2(\mu_4\text{-PMe}_3)(\mu_3\text{-PMe}_3)_2]$  was found to adopt a novel bicapped octahedral framework. Stepwise and high-yield transformation among the products were also found. A similar reaction of  $[\text{Os}_3(\text{CO})_{12}]$  with  $\text{PH}_2\text{Mes}$  exclusively afforded trinuclear clusters.

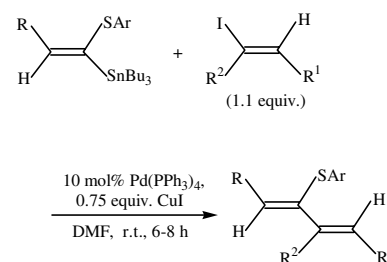


**Ming-Zhong Cai, Dong Wang, Ping-Ping Wang**

*J. Organomet. Chem.* 691 (2006) 737

Novel stereoselective synthesis of 1-substituted 1,3-dien-2-yl sulfides via Stille coupling reactions of (*E*)- $\alpha$ -stannylvinyl sulfides with alkenyl iodides

(*E*)- $\alpha$ -stannylvinyl sulfides are new difunctional reagents which undergo Stille coupling reactions with alkenyl iodides to afford stereoselectively 1-substituted 1,3-dien-2-yl sulfides in good yields.

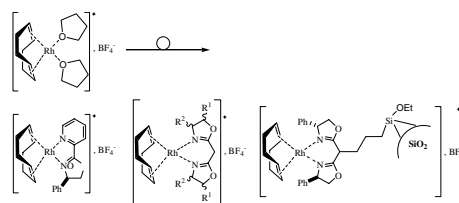


**Nathalie Debono, Laurent Djakovitch, Catherine Pinel**

*J. Organomet. Chem.* 691 (2006) 741

New chiral oxazoline based-rhodium(I) catalysts: Synthesis, characterisation, heterogenisation and applications

New chiral oxazoline-based rhodium(I) homogeneous and heterogeneous catalysts have been prepared, characterised and evaluated for enantioselective reduction of C=O and C=C double bonds, for which moderate activity and enantioselectivity were observed.

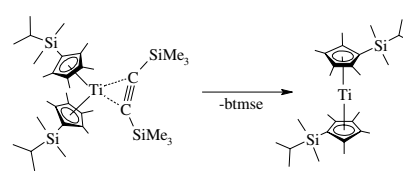


**Lenka Lukešová, Jiří Pinkas, Michal Horáček, Róbert Gyepes, Jiří Kubišta, Karel Mach**

*J. Organomet. Chem.* 691 (2006) 748

Synthesis and structure of isopropyl-dimethylsilyl-substituted octamethyltitanocene

The thermolysis of bis(trimethylsilyl)ethyne complex is a convenient route to bis{(isopropyl)dimethylsilyl} tetramethylcyclopentadienyl}titanium(II).

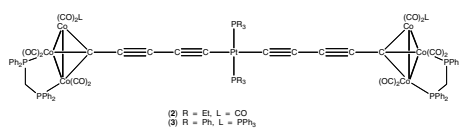


**Michael I. Bruce, Natasha N. Zaitseva, Brian W. Skelton**

*J. Organomet. Chem.* 691 (2006) 759

Some complexes containing Pt-C<sub>5</sub>-Co<sub>3</sub> fragments: Molecular structure of *trans*-Pt{C≡CC≡C-μ<sub>3</sub>-C[Co<sub>3</sub>(μ-dppm)(CO)<sub>6</sub>(PPh<sub>3</sub>)<sub>2</sub>]}<sub>2</sub>(PPh<sub>3</sub>)<sub>2</sub> determined using synchrotron radiation

Reactions of platinum(II) chloro-phosphine complexes with Co<sub>3</sub>(μ<sub>3</sub>-CC≡CC≡CSiMe<sub>3</sub>)-(μ-dppm)(CO)<sub>7</sub> in the presence of NaOMe have given the compounds Pt{C≡CC≡C-μ<sub>3</sub>-C[Co<sub>3</sub>(μ-dppm)(CO)<sub>7</sub>]}<sub>2</sub>(dppe) (1), *trans*-Pt{C≡CC≡C-μ<sub>3</sub>-C[Co<sub>3</sub>(μ-dppm)(CO)<sub>7</sub>]}<sub>2</sub>(PEt<sub>3</sub>)<sub>2</sub> (2) and *trans*-Pt{C≡CC≡C-μ<sub>3</sub>-C[Co<sub>3</sub>(μ-dppm)(CO)<sub>6</sub>(PPh<sub>3</sub>)<sub>2</sub>]}<sub>2</sub>(PPh<sub>3</sub>)<sub>2</sub> (3); the structure of the latter was determined by synchrotron X-radiation.

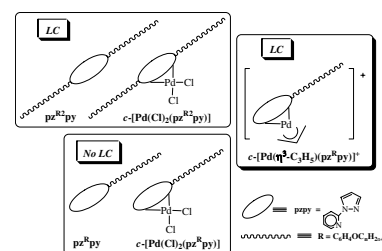


**M.C. Torralba, M. Cano, J.A. Campo, J.V. Heras, E. Pinilla, M.R. Torres**

*J. Organomet. Chem.* 691 (2006) 765

Liquid crystal behaviour of ionic allyl-palladium complexes containing 2-pyrazolylpyridine as bidentate *N,N'*-ligand

The substitution at the 3 and 5 positions on the pyrazole ring of 2-pyrazolylpyridine (pz<sup>R</sup>py) ligands was determinant to produce mesomorphic properties on themselves as well as on their PdCl<sub>2</sub> complexes. This behaviour was absent on the related ligands and complexes containing an unique substituent at the 3-position (pz<sup>R</sup>py). By contrast, the [Pd(η<sup>3</sup>-C<sub>3</sub>H<sub>5</sub>)]<sup>+</sup> fragment induces mesomorphism on the complexes obtained upon coordination to pz<sup>R</sup>py. In this work, the new cationic [Pd(η<sup>3</sup>-C<sub>3</sub>H<sub>5</sub>)(pz<sup>R</sup>py)]<sup>+</sup> compounds are characterised, and their liquid crystal properties are examined and related to their molecular structures determined by X-ray diffraction.



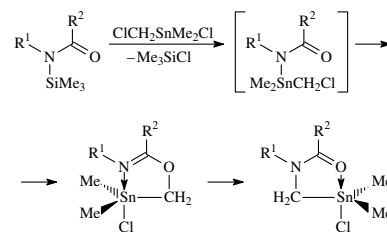


Sergey Yu. Bylikin, Aleksandr G. Shipov, Vadim V. Negrebetsky, Yuri I. Baukov, Yuri E. Ovchinnikov, Sergei A. Pogozhikh, Sergei V. Pestunovich, Lyudmila I. Belousova, Elena F. Belogolova, Valery F. Sidorkin, Mikhail G. Voronkov, Vadim A. Pestunovich, Inna Kalikhman, Daniel Kost

*J. Organomet. Chem.* 691 (2006) 779

Reaction of *N*-trimethylsilyl derivatives of amides and lactams with chloro(chloromethyl)dimethylstannane: Crystal and molecular structure of 1-(chlorodimethylstannylmethyl)-2-piperidone

General scheme of reactions between chloro(chloromethyl)dimethylstannane and *N*-trimethylsilylamides and -lactams was established by NMR and IR techniques. X-ray diffraction study of the (O–Sn)-chelate 1-(chlorodimethylstannylmethyl)-2-piperidone is reported. Structural parameters obtained from the X-ray study and quantum-chemical calculations are discussed in comparison with those of related TBP derivatives of Si, Ge, and Sn.

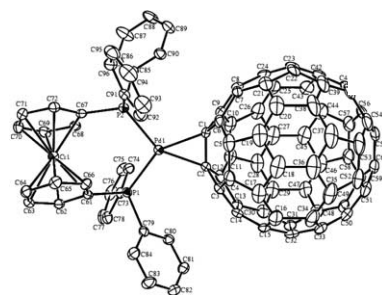


Li-Cheng Song, Guang-Ao Yu, Qing-Mei Hu, Chi-Ming Che, Nianyong Zhu, Jie-Sheng Huang

*J. Organomet. Chem.* 691 (2006) 787

Synthesis and characterization of the first transition-metal fullerene complexes containing bis( $\eta^6$ -benzene)chromium moieties

The first transition-metal fullerene complexes each with a bis( $\eta^6$ -benzene)chromium moiety, *fac/mer*-( $\eta^2$ -C<sub>60</sub>)Mo(CO)<sub>3</sub>[( $\eta^6$ -Ph<sub>2</sub>PC<sub>6</sub>H<sub>5</sub>)<sub>2</sub>Cr] (2) and ( $\eta^2$ -C<sub>60</sub>)M[( $\eta^6$ -Ph<sub>2</sub>PC<sub>6</sub>H<sub>5</sub>)<sub>2</sub>Cr] (4, M = Pd; 5, M = Pt), have been prepared by reaction of C<sub>60</sub> with Mo(CO)<sub>4</sub>( $\eta^6$ -Ph<sub>2</sub>PC<sub>6</sub>H<sub>5</sub>)<sub>2</sub>Cr (1) or C<sub>60</sub> with M(dba)<sub>2</sub> and ( $\eta^6$ -Ph<sub>2</sub>PC<sub>6</sub>H<sub>5</sub>)<sub>2</sub>Cr (3). Crystal structures of 1, 3 and 4 are reported.

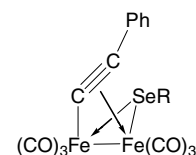


D. Taher, H. Pritzkow, B. Walfort, H. Lang

*J. Organomet. Chem.* 691 (2006) 793

Synthesis and reaction chemistry of [( $\mu$ -SeR)-( $\mu$ - $\sigma$ , $\pi$ -C $\equiv$ CPh)]Fe<sub>2</sub>(CO)<sub>6</sub>

The synthesis and chemical properties of [( $\mu$ -SeR)( $\mu$ - $\sigma$ , $\pi$ -C $\equiv$ CPh)]Fe<sub>2</sub>(CO)<sub>6</sub> is discussed. The reaction of the mesityl derivative with P(O<sup>*i*</sup>C<sub>3</sub>H<sub>7</sub>)<sub>3</sub> produces {( $\mu$ -Se-2,4,6-Me<sub>3</sub>C<sub>6</sub>H<sub>2</sub>)-[ $\mu$ - $\eta^1$ -C $\equiv$ CPh(P(O<sup>*i*</sup>C<sub>3</sub>H<sub>7</sub>)<sub>3</sub>)]}Fe<sub>2</sub>(CO)<sub>6</sub> along with {( $\mu$ -Se-2,4,6-Me<sub>3</sub>C<sub>6</sub>H<sub>2</sub>)[ $\mu$ - $\eta^1$ : $\eta^1$ -PhC $\equiv$ C-(P(O<sup>*i*</sup>C<sub>3</sub>H<sub>7</sub>)<sub>3</sub>)]}Fe<sub>2</sub>(CO)<sub>6</sub>. The solid-state structures of the latter three examples are reported.

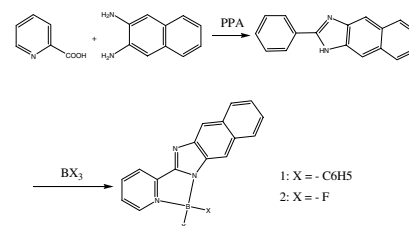


Tsun-Ren Chen, Rong-Hong Chien, Ming-Shiun Jan, Anchi Yeh, Jhy-Der Chen

*J. Organomet. Chem.* 691 (2006) 799

Syntheses and structures of new luminescent B(III) complexes: BPh<sub>2</sub>(2-(2-pyridyl)naphtho-[b]imidazole) and BF<sub>2</sub>(2-(2-pyridyl)naphtho-[b]imidazole)

We have demonstrated a novel PNI ligand which is capable of chelating to B(III) center and the resulting complexes possess appreciable photoluminescent efficiency, which could be of interest for practical applications, especially for OLED.



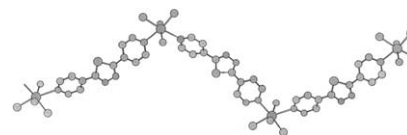
## Notes

**Renato Ettore, Daniele Marton, Luca Nodari, Umberto Russo**

*J. Organomet. Chem.* 691 (2006) 805

Coordination polymers formed by diorganotin dichlorides with 2,5-bis(4-pyridyl)-1,3,4-thiadiazole

Dichlorodimethyltin and dichlorodiphenyltin form monodimensional coordination polymers with the bridging ligand 2,5-bis(4-pyridyl)-1,3,4-thiadiazole (**L1**). The octahedral coordination geometry at the tin atom in the complexes  $\text{SnCl}_2(\text{CH}_3)_2 \cdot \text{L1}$  and  $\text{SnCl}_2(\text{C}_6\text{H}_5)_2 \cdot \text{L1} \cdot 0.3\text{CH}_2\text{Cl}_2$  is very distorted, with a C–Sn–C bond angle of about 150°.

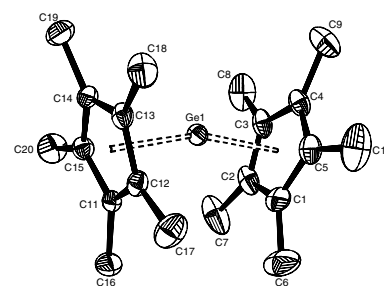


**Annika Schöpfer, Wolfgang Saak, Manfred Weidenbruch**

*J. Organomet. Chem.* 691 (2006) 809

Molecular structure of decamethylgermanocene in the solid state

The structure of decamethylgermanocene in the solid state reveals two independent molecules in the unit cell, both of which have a bent sandwich structure with angles between the planes of the  $\text{C}_5\text{Me}_5$  rings of 31.26° and 31.55°.

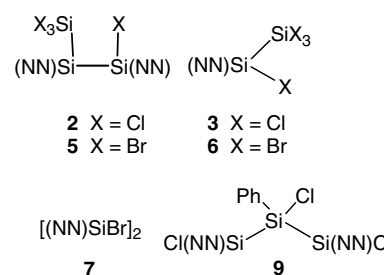


**Barbara Gehrhus, Peter B. Hitchcock, Helen Jansen**

*J. Organomet. Chem.* 691 (2006) 811

The stable silylene  $\text{Si}[(\text{NCH}_2\text{Bu}')_2\text{C}_6\text{H}_4-1,2]$ : Reactions with Group 14 element halides

Reactions of the thermally stable silylene  $\text{Si}[(\text{NCH}_2\text{Bu}')_2\text{C}_6\text{H}_4-1,2]$  (**1**) [abbrev. as  $\text{Si}(\text{NN})$ ] with  $\text{SiX}_4$  ( $\text{X} = \text{Cl}$  or  $\text{Br}$ ),  $\text{RSiCl}_3$  ( $\text{R} = \text{Me}$  or  $\text{Ph}$ ) and  $\text{Br}_2$  are described, which afforded di- and trisilanes, such as, e.g., **2**, **3**, **5**–**7** and **9**. Reaction of **1** with  $\text{MCl}_4$  ( $\text{M} = \text{Ge}$  or  $\text{Sn}$ ) yielded  $(\text{NN})\text{SiCl}_2$  and  $\text{MCl}_2$ .



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