

## Contents

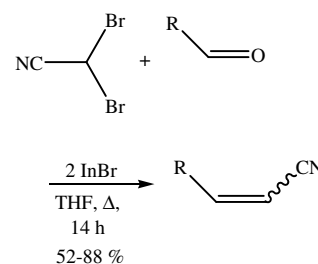
### Communication

**Clovis Peppe, Paola de Azevedo Mello,  
Rafael Pavão das Chagas**

*J. Organomet. Chem. 691 (2006) 2335*

Indium(I) bromide-mediated coupling of dibromoacetonitrile with aldehydes followed by Boord elimination of bromine and oxygen of  $\beta$ -bromo alkoxides for preparation of 3-organyl-2-alkenenitriles

The organoindium compound derived from indium monobromide and intermolecular dibromoacetonitrile reacts with carbonyl compounds to afford the corresponding 2-bromo-2-cyano-indium(III) alkoxide. The action of a second equivalent of indium monobromide onto the alkoxides derived from aldehydes promotes the Boord elimination of the  $\beta$ -related oxygen and bromine atoms leading to 2-alkenenitriles.



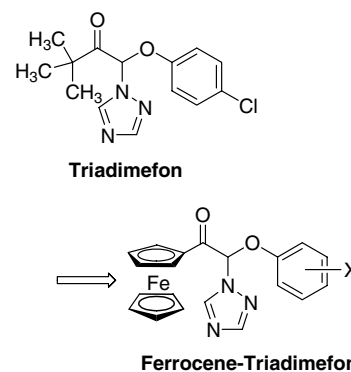
### Regular papers

**Zhong Jin, Yan Hu, Aihong Huo, Weifeng Tao,  
Ling Shao, Jianbing Liu, Jianxin Fang**

*J. Organomet. Chem. 691 (2006) 2340*

Synthesis, characterization, and biological evaluation of novel ferrocene-triadimefon analogues

In order to improve biological behavior of the 1*H*-1,2,4-triazole derivatives, a series of new ferrocene-analogues of commercial triadimefon were synthesized and their antifungal and plant growth regulatory activities evaluated. These organometallic analogues showed lower antifungal activity than parent triadimefon, but exhibited promising plant growth regulatory activity.

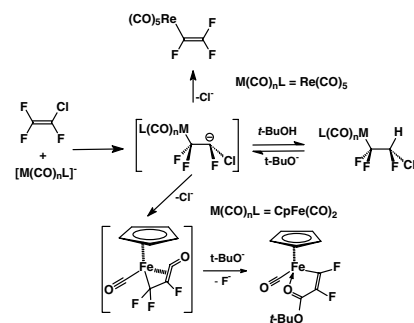


**P.K. Sazonov, G.A. Artamkina, K.A. Lyssenko,  
I.P. Beletskaya**

*J. Organomet. Chem. 691 (2006) 2346*

A new mechanism of nucleophilic vinylic substitution and unexpected products in the reaction of chlorotrifluoroethylene with  $[\text{Re}(\text{CO})_5]\text{Na}$  and  $[\text{CpFe}(\text{CO})_2]\text{K}$

Reaction of chlorotrifluoroethylene with  $[\text{Re}(\text{CO})_5]\text{Na}$  and  $[\text{CpFe}(\text{CO})_2]\text{K}$  is shown to proceed via the carbenoid transformation of the intermediate carbanion  $[\text{L}(\text{CO})_n\text{MCF}_2\text{CFC}]^-$ . 1,2-Shift of  $(\text{CO})_5\text{Re}$  group gives the nucleophilic substitution product, while the carbene insertion into Fe-CO bond leads to the five-membered metallocycle  $\text{Cp}(\text{CO})\text{FeCF}=\text{CFC}(\text{O})\text{OBu-}t$ .

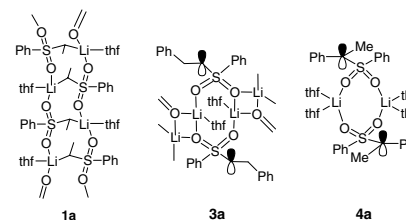


**Matthias Linnert, Clemens Bruhn,  
Christoph Wagner, Dirk Steinborn**

*J. Organomet. Chem.* 691 (2006) 2358

Syntheses and structures of lithiated sulfones  $\text{Li}[\text{CR}(\text{R}')\text{SO}_2\text{Ph}]$  – C versus O bound lithium.  $[\{\text{Li}\{\text{CH}(\text{Me})\text{SO}_2\text{Ph}\}(\text{thf})\}_\infty]$  – The structure of a C-bound derivative

The synthesis of solvate-free lithiated sulfones  $\text{Li}[\text{CR}(\text{R}')\text{SO}_2\text{Ph}]$  is described. Crystallization from *thf/n*-hexane or *thf/n*-pentane resulted in the formation of their tetrahydrofuran adducts in well-shaped crystals of  $[\{\text{Li}\{\text{CH}(\text{Me})\text{SO}_2\text{Ph}\}(\text{thf})\}_\infty]$  (**1a**),  $[\{\text{Li}\{\text{CH}(\text{CH}_2\text{Ph})\text{SO}_2\text{Ph}\}(\text{thf})\}_\infty]$  (**3a**), and  $[\{\text{Li}\{\text{CMe}(\text{Ph})\text{SO}_2\text{Ph}\}(\text{thf})_2\}_2]$  (**4a**), whose structures were determined by single-crystal X-ray crystallography. In the solid state, **1a** and **3a** exhibited 1D polymeric structures that are unprecedented so far. Compound **1a** is one of the rare example of lithiated sulfones having a Li–C bond whereas in **3a** and **4a** the lithium adopts the usual O coordination.

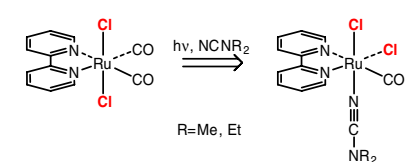


**Nadezhda A. Bokach, Matti Haukka,  
Pipsa Hirva, M. Fatima C. Guedes Da Silva,  
Vadim Yu. Kukushkin, Armando J.L. Pombeiro**

*J. Organomet. Chem.* 691 (2006) 2368

Photoinduced synthesis and electrochemical properties of new ruthenium(mono)bipyridine dialkylcyanamide and propionitrile complexes

Photochemical exchange of carbonyls was used to produce new ruthenium dialkylcyanamide and nitrile compounds  $[\text{RuCl}_2(\text{bpy})(\text{CO})(\text{NCNMe}_2)]$ ,  $[\text{RuCl}_2(\text{bpy})(\text{CO})(\text{NCNEt}_2)]$ , and  $[\text{RuCl}_2(\text{bpy})(\text{CO})(\text{NCEt})]$  from *trans*(Cl)- $[\text{RuCl}_2(\text{bpy})(\text{CO})_2]$ . In all cases the photochemical exchange reaction favors rearrangement of the ligands and formation of the *trans*(Cl,L)- $[\text{RuCl}_2(\text{bpy})(\text{CO})\text{L}]$  (L=NCNMe<sub>2</sub>, NCNEt<sub>2</sub> or NCEt) isomer as the main products. The reaction and the products were studied by computational DFT methods and by cyclic voltammetry.

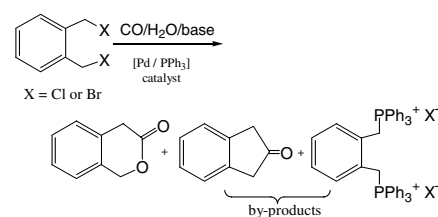


**Ray V.H. Jones, W. Edward Lindsell,  
Greg C. Paddon-Jones, Daniel D. Palmer,  
Peter N. Preston, Georgina M. Rosair,  
Alan J. Whitton**

*J. Organomet. Chem.* 691 (2006) 2378

Studies of reactions of *o*-xylylene- $\alpha,\alpha'$ -dihalides with palladium complexes and the catalytic synthesis of 3-isochromanone

Studies of the Pd-catalyzed synthesis of 3-isochromanone from *o*-xylylene- $\alpha,\alpha'$ -dihalides are reported, including crystal structures of  $\text{PdCl}(\text{o}-\text{C}_6\text{H}_4\text{CH}_2\text{Cl})(\text{PMe}_3)_2$  and  $[\text{o}-\text{C}_6\text{H}_4(\text{CH}_2\text{PPh}_3)_2]\text{Br}_2$ .

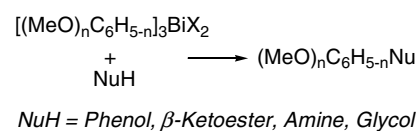


**Jean-Pierre Finet, Alexey Yu. Fedorov**

*J. Organomet. Chem.* 691 (2006) 2386

Tris(polymethoxyphenyl)bismuth derivatives: Synthesis and reactivity

A range of new tris-(polymethoxyphenyl)bismuthanes, tris-(polymethoxyphenyl)bismuth diacetates and dichlorides have been synthesized. These compounds are useful reagents for the transfer of aryl fragments with electron-donating substituents in C-arylation reactions under basic conditions, as well for the copper-catalyzed N- and O-arylation reactions.

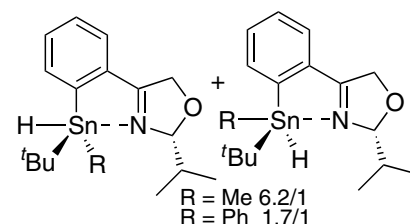


**Krzysztof Staliński,  
Zofia Urbańczyk-Lipkowska, Piotr Cmoch,  
Leszek Rupnicki, Andrey Grachev**

*J. Organomet. Chem.* 691 (2006) 2394

New chiral tin compounds containing the 2-(4-isopropyl-2-oxazoliny)-5-phenyl ligand

A series of tri- and tetraorganotin compounds containing the optically active 2-(4-isopropyl-2-oxazoliny)-5-phenyl ligand and *tert*-butyl, methyl and/or phenyl groups on the tin has been synthesized. The tin halides, as pairs of diastereoisomers in solution, crystallize in the form of one diastereoisomer. In the corresponding diastereomeric tin hydride values of the  $^1J(^1\text{H}-^{117/119}\text{Sn})$  differ significantly, suggesting a different *pseudo*-axial/equatorial position of the hydrogen atom.

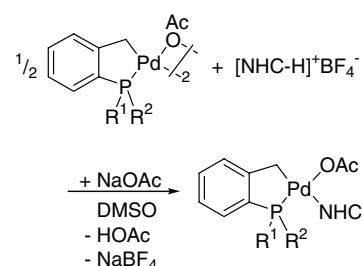


**Guido D. Frey, Jan Schütz,  
Wolfgang A. Herrmann**

*J. Organomet. Chem.* 691 (2006) 2403

A straight forward in situ preparation of NHC-substituted phosphapalladacycles

The preparation of NHC-substituted phosphapalladacycles via an in situ method by using phosphapalladacycle acetate precursors and azolium tetrafluoroborate salts in DMSO was accomplished. With this method it is possible to prepare NHC-palladacycles with a broader variation of NHC's.

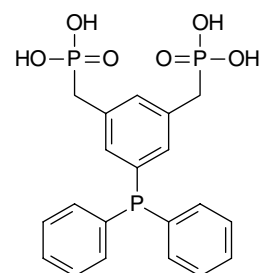


**Zbyněk Rohlík, Petr Holzhauser, Jan Kotek,  
Jakub Rudovský, Ivan Němec, Petr Hermann,  
Ivan Lukeš**

*J. Organomet. Chem.* 691 (2006) 2409

Synthesis and coordination properties of palladium(II) and platinum(II) complexes with phosphonated triphenylphosphine derivatives

Mono- and bis-phosphonated triphenylphosphines were synthesized in both ester and acid forms. Their *cis* and *trans* Pd(II) and Pt(II) complexes of the general formula  $[\text{MCl}_2\text{L}_2]$  were studied in solution and in the solid state.

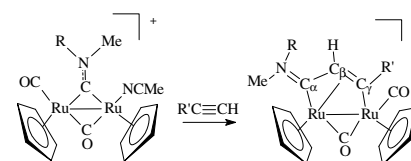


**Luigi Busetto, Fabio Marchetti,  
Stefano Zacchini, Valerio Zanotti**

*J. Organomet. Chem.* 691 (2006) 2424

New diruthenium vinyliminium complexes from the insertion of alkynes into bridging aminocarbynes

Insertion of alkynes into the ruthenium-aminocarbyne bond generate diruthenium bridging vinyliminium complexes. The  $\mu$ -vinyliminium ligands undergo hydride addition (by  $\text{NaBH}_4$ ) at the iminium carbon ( $\text{C}_\alpha$ ), or at the adjacent  $\text{C}_\beta$ , or can be deprotonated (by  $\text{NaH}$ ) at the  $\text{C}_\beta$ -H position.

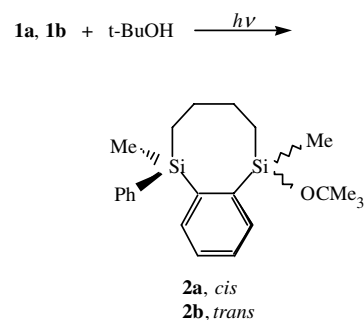


**Akinobu Naka, Kuninori Nakano,  
Mitsuo Ishikawa, Young-Woo Kwak**

*J. Organomet. Chem.* 691 (2006) 2440

Silicon–carbon unsaturated compounds. 73.  
Photolysis of *cis*- and *trans*-1,2-dimethyl-1,2-diphenyl-1,2-disilacyclohexane in the presence of *tert*-butyl alcohol and acetone

The photolysis of *cis*- and *trans*-1,2-dimethyl-1,2-diphenyl-1,2-disilacyclohexane (**1a** and **1b**) with *tert*-butyl alcohol proceeded with high stereospecificity to give *cis*- and *trans*-addition/elimination product (**2a** and **2b**), while with acetone, **1a** and **1b** afforded *cis*- and *trans*-ene-adduct, respectively.

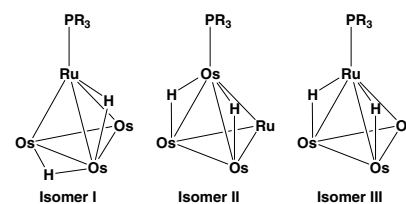


**Leonard Joachim Pereira, Weng Kee Leong**

*J. Organomet. Chem.* 691 (2006) 2448

Substitution derivatives of the heteronuclear cluster  $\text{RuOs}_3(\mu\text{-H})_2(\text{CO})_{13}$ : Monosubstituted group 15 derivatives

Tertiary group 15 ligand monosubstituted derivatives of the heteronuclear cluster  $\text{RuOs}_3(\mu\text{-H})_2(\text{CO})_{13}$  have been prepared and their solid state and solution structures examined. A number of isomeric structural types have been identified in solution, and these appear to be correlated to disorder in the solid state. Hydride fluxionality and restricted rotation about the metal–phosphorus bond have also been observed.

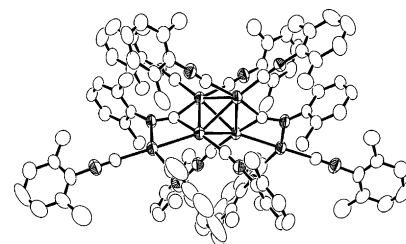


**Masato Ohashi, Jianjun Yi, Daisuke Shimizu,  
Tsuneaki Yamagata, Takashi Ohshima,  
Kazushi Mashima**

*J. Organomet. Chem.* 691 (2006) 2457

Hexapalladium cluster: Unique cluster construction reaction of cyclic  $\text{Pd}_3(\text{CNC}_6\text{H}_3\text{Me}_2\text{-2,6})_6$  and linear  $[\text{Pd}_3(\text{CNC}_6\text{H}_3\text{Me}_2\text{-2,6})_8]^{2+}$

The synthesis and molecular structure of a homoleptic hexanuclear palladium cluster  $[\text{Pd}_6(\text{CNXyl})_{12}][\text{PF}_6]_2$  are reported. The hexapalladium complex was prepared by the multiple insertion reactions of  $\text{Pd}(0)$  fragments,  $\text{Pd}(\text{CNXyl})_2$ , into a dicationic dinuclear complex  $[\text{Pd}_2(\text{CNXyl})_6][\text{PF}_6]_2$ . X-ray crystallographic study reveals that two isocyanide ligands coordinate to the hexapalladium core in a  $\mu_3$ -fashion.

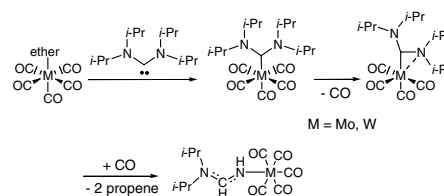


**Guido D. Frey, Eberhardt Herdtweck,  
Wolfgang A. Herrmann**

*J. Organomet. Chem.* 691 (2006) 2465

Structural investigations of metallocarbonyl complexes with acyclic diamino carbenes

Reaction of bis(diisopropylamino)carbene with ether substituted Mo-, and W-carbonyls leads to  $\eta^2$ -bonded carbene complexes which can be converted in contrast to the analogous chromium complex in a CO-atmosphere to imine complexes.

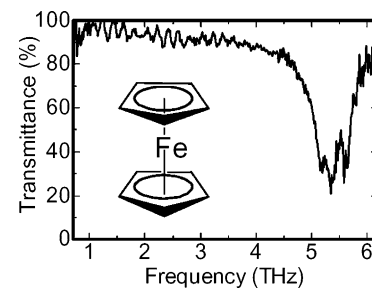


**Jun-ichi Nishizawa, Takenori Tanno,  
Tadao Tanabe, Ken Suto**

*J. Organomet. Chem.* 691 (2006) 2479

Terahertz vibrational spectra of metallocene

The terahertz transmission spectra of metallocenes and decamethyl metallocene were clearly measured in the range of 0.7–6.2 THz by a recently developed GaP Raman terahertz spectrometer. The low-frequency modes were observed, and the force constants of bending were estimated from the absorption frequencies based on a three-body model.

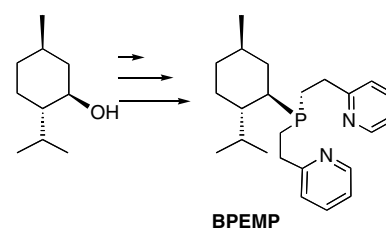


**Makoto Minato, Takefumi Kaneko,  
Shogo Masauji, Takashi Ito**

*J. Organomet. Chem.* 691 (2006) 2483

Synthesis of the new chiral tridentate ligand bis(pyrid-2-ylethyl) menthylphosphine and its use in the palladium-catalyzed allylic alkylations

A new asymmetric *P,N,N'*-tridentate ligand (bis-(pyrid-2-ylethyl) menthylphosphine, BPEMP), containing two pyridyl rings and (1*S*,2*R*,5*S*)-menthylphosphino group, is obtained in five steps from natural abundant *l*-menthol. Asymmetric allylic alkylation of a symmetrically (*E*)-1,3-diphenyl-3-acetoxyprop-1-ene is accomplished by Pd-BPEMP catalyst with enantiomeric excess up to 53% ee.

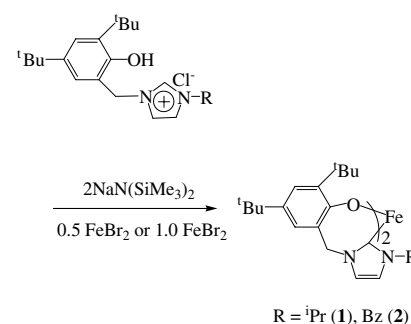


**Mu-Zi Chen, Hong-Mei Sun, Wan-Fei Li,  
Zhing-Guo Wang, Qi Shen, Yong Zhang**

*J. Organomet. Chem.* 691 (2006) 2489

Synthesis, structure of functionalized *N*-heterocyclic carbene complexes of Fe(II) and their catalytic activity for ring-opening polymerization of  $\epsilon$ -caprolactone

Fe(II)-based *N*-heterocyclic carbene complexes of **1** and **2** have been synthesized and characterized by X-ray structural analysis. Complex **1** can catalyze the ring-opening polymerization of  $\epsilon$ -caprolactone as a single component initiator.

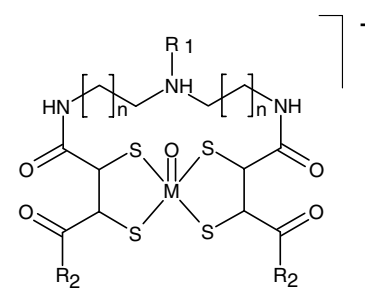


**Peter Comba, André Daubinet, Bodo Martin,  
Hans-Jürgen Pietzsch, Holger Stephan**

*J. Organomet. Chem.* 691 (2006) 2495

A new molecular mechanics force field for the design of oxotechnetium(V) and oxorhenium(V) radiopharmaceuticals

Force field parameters for the modeling of oxotechnetium(V) and oxorhenium(V) complexes with amine, amide, imine, carboxylate and thiolate donors have been derived and optimized using an automated procedure. With these force field the structure of a novel radio-pharmaceutical was predicted successfully.



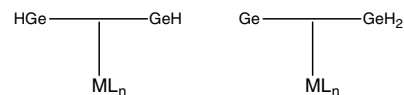
M = Tc<sup>V</sup>, Re<sup>V</sup>; R<sub>1</sub> = alkyl, R<sub>2</sub> = NH-alkyl, N-(alkyl)<sub>2</sub>, O-alkyl, OH; n = 1,2

**Gantasala N. Srinivas, Yike Lu, M. Schwartz**

*J. Organomet. Chem.* 691 (2006) 2503

Ge<sub>2</sub>H<sub>2</sub> a  $\pi$ -ligand in organometallic chemistry

Density functional investigations revealed that the organometallic  $\pi$ -complexes of Ge<sub>2</sub>H<sub>2</sub> ligand are local minima. The complexes containing GeGeH<sub>2</sub> isomer as a ligand are lower in energy than those with the HGeGeH ligand.



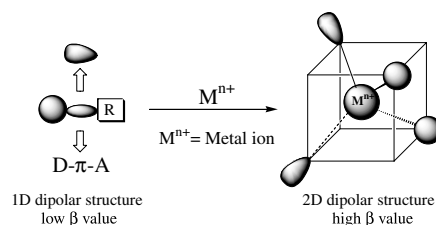
ML<sub>n</sub> = V(PH<sub>3</sub>)<sub>2</sub>(I)(CO)<sub>2</sub>, Cr(CO)<sub>4</sub>, Co(PH<sub>3</sub>)<sub>2</sub>(Cl), Ni(PH<sub>3</sub>)<sub>2</sub>, Pd(PH<sub>3</sub>)<sub>2</sub> and Pt(PH<sub>3</sub>)<sub>2</sub>

**Sanjib Das, Atanu Jana, V. Ramanathan, Tapas Chakraborty, Sampa Ghosh, Pushpendu K. Das, Parimal K. Bharadwaj**

*J. Organomet. Chem.* 691 (2006) 2512

Design and synthesis of 1,10-phenanthroline based Zn(II) complexes bearing 1D push-pull NLO-phores for tunable quadratic nonlinear optical properties

Zn(II) complexes bearing 1,10-phenanthroline and 1D push-pull NLO-phores have been synthesized in high yields that show significantly large  $\beta$  values in comparison to the monomeric dipolar counterparts.

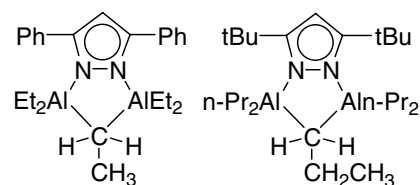


**Chatu T. Sirimanne, Zhengkun Yu, Mary Jane Heeg, Charles H. Winter**

*J. Organomet. Chem.* 691 (2006) 2517

Synthesis, structure, and bridge-terminal alkyl exchange kinetics of pyrazolate-bridged dialuminum complexes containing bridging *n*-alkyl groups

The bridging *n*-alkyl complexes  $\mu$ -3,5-diphenylpyrazolato- $\mu$ -ethyl-tetraethylaluminum and  $\mu$ -3,5-di-*tert*-butylpyrazolato- $\mu$ -*n*-propyl-tetra-*n*-propylaluminum were obtained upon treatment of the parent pyrazole with two equivalents of triethylaluminum or tri-*n*-propylaluminum. The X-ray crystal structures and bridge-terminal alkyl group exchange kinetics of these complexes are described.

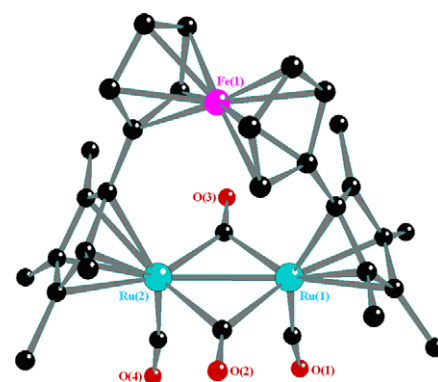


**Jin Lin, Baiquan Wang, Shansheng Xu, Haibin Song**

*J. Organomet. Chem.* 691 (2006) 2528

Ferrocene bridged and substituted tetramethylcyclopentadienyl (or indenyl) carbonyl complexes of iron, ruthenium, and molybdenum

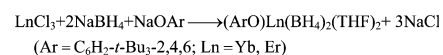
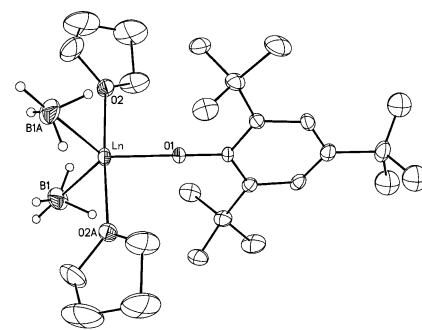
Reactions of ligands 1,1'-Fc(C<sub>5</sub>Me<sub>4</sub>H)<sub>2</sub> and (C<sub>5</sub>H<sub>5</sub>FeC<sub>5</sub>H<sub>4</sub>)C<sub>5</sub>Me<sub>4</sub>H with Ru<sub>3</sub>(CO)<sub>12</sub>, Fe(CO)<sub>5</sub>, and Mo(CO)<sub>3</sub>(CH<sub>3</sub>CN)<sub>3</sub> in refluxing xylene gave the corresponding bridged and substituted tetramethylcyclopentadienyl trinuclear and tetranuclear metal carbonyl complexes.



**Fugen Yuan, Jing Yang, Lifeng Xiong***J. Organomet. Chem.* 691 (2006) 2534

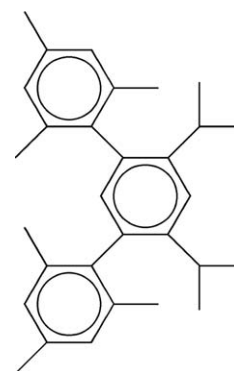
Lanthanide borohydride complexes with an aryloxy ligand: Synthesis, structural characterization and polymerization activity

The title complexes were synthesized by 'one pot' reactions of  $\text{LnCl}_3$ ,  $\text{NaBH}_4$  and  $\text{ArONa}$  ( $\text{Ar} = \text{C}_6\text{H}_2\text{-}t\text{-Bu}_3\text{-2,4,6}$ ) in a molar ratio of 1:3:1 in THF. They are isostructural. Both of the  $\text{BH}_4$  ligands in each monomeric complex are  $\eta^3$ -coordinated. These complexes displayed moderate high catalytic activities for the polymerization of methyl methacrylate. At about 0 °C, the catalysts showed the polymerization activity best.

**Corneliu Stanciu, Anne F. Richards, James C. Fetting, Marcin Brynda, Philip P. Power***J. Organomet. Chem.* 691 (2006) 2540

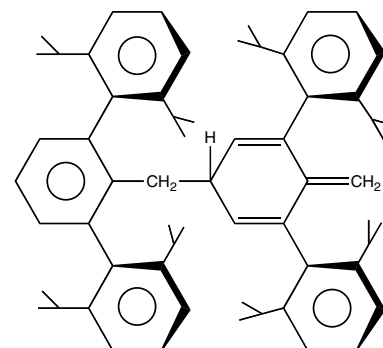
Synthesis and characterization of new, modified terphenyl ligands: Increasing the rotational barrier for flanking rings

The synthesis of new terphenyl ligands with alkyl substitution in the *meta*-positions of the central aryl ring increases the rotational barriers for the flanking aryls.

**Corneliu Stanciu, Alexander R. Fox, Anne F. Richards, James C. Fetting, Philip P. Power***J. Organomet. Chem.* 691 (2006) 2546

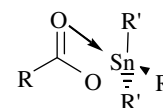
*ipso*- and *para*-Functionalization of *meta*-terphenyl ligands with substituted methyl groups: Unusual head-to-tail coupling of terphenyl moieties

Attempted synthesis of the Grignard reagent  $\text{Ar}'\text{CH}_2\text{MgBr}$  ( $\text{Ar}' = \text{C}_6\text{H}_3\text{-2,6}(\text{C}_6\text{H}_3\text{-2,6-Pr}_2)_2$ ) results in the isolation of the illustrated coupled product probably by a radical mechanism.

**M.I. Khan, Musa Kaleem Baloch, Muhammad Ashfaq, Gerrit Stoter***J. Organomet. Chem.* 691 (2006) 2554

In vivo toxicological effects and spectral studies of new triorganotin(IV)-*N*-maleoyl-tranexamates

New triorganotin(IV) esters of *N*-maleoyl-protected tranexamic acid are synthesized and characterized using  $^1\text{H}$ ,  $^{13}\text{C}$  and  $^{119}\text{Sn}$ , FT-IR,  $^{119\text{m}}\text{Sn}$  Mössbauer spectroscopy, elemental analysis and MS have been carried out too. The spectroscopic data confirmed the 1:1 ligand to metal ratio. These complexes have been tested in vitro as anti-fungal, anti-leishmanial and anti-tumour as well as in vivo anti-tumour agents and found to be active.

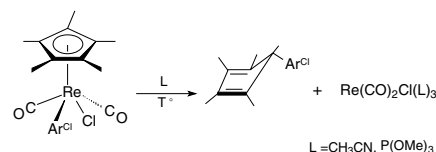


**Alvaro Aballay, Rodrigo Arancibia, Gonzalo E. Buono-Core, Teresa Cautivo, Fernando Godoy, A. Hugo Klahn, Beatriz Oelckers**

*J. Organomet. Chem.* 691 (2006) 2563

Reductive elimination reaction of rhenium complexes  $trans-(\eta^5-C_5Me_5)Re(CO)_2(chloro-aryl)Cl$

Rhenium complexes  $trans-(\eta^5-C_5Me_5)Re(CO)_2(Ar^{Cl})Cl$  ( $Ar^{Cl} = 3-ClC_6H_4$ ,  $3-ClC_6H_3(4-Me)$  and  $3,5-Cl_2C_6H_3$ ) undergo reductive elimination of  $5-Ar^{Cl}-1,2,3,4,5$ -pentamethylcyclopentadiene in acetonitrile or in the presence of trimethylphosphite.



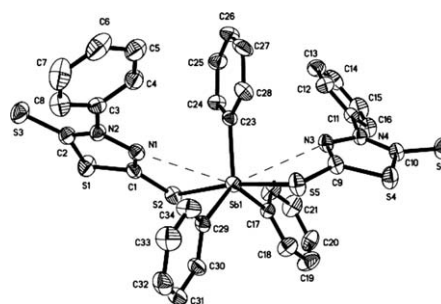
**Chunlin Ma, Qingfu Zhang, Jiafeng Sun, Rufen Zhang**

*J. Organomet. Chem.* 691 (2006) 2567

Syntheses, characterizations and crystal structures of new organoantimony(V) complexes with heterocyclic (S, N) ligand

Eight new organoantimony(V) complexes with 1-phenyl-1H-tetrazole-5-thiol [ $L^1H$ ] and 2,5-dimercapto-4-phenyl-1,3,4-thiodiazole [ $L^2H$ ] of the type  $R_nSbL_{5-n}$  ( $L = L^1: n = 4, R = n-$

Bu **1**, Ph **2**,  $n = 3$ , R = Me **3**, Ph **4**;  $L = L^2: n = 4$ , R =  $n$ -Bu **5**, Ph **6**,  $n = 3$ , R = Me **7**, Ph **8**) have been synthesized. All the complexes **1–8** have been characterized by elemental, FT-IR,  $^1H$  and  $^{13}C$  NMR analyses. Among them complexes **2**, **6** and **8** have also been confirmed by X-ray crystallography. The structure analyses show that the antimony atoms in complexes **2** and **6** display a trigonal bipyramid geometry, while it displays a distorted capped trigonal prism in complex **8** with two intramolecular Sb...N weak interactions.

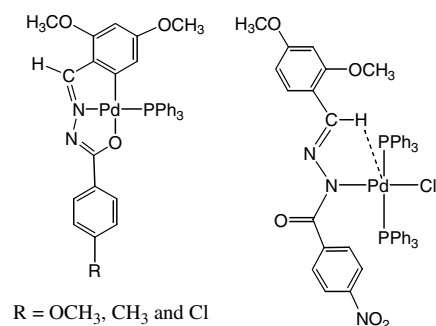


**Sunirban Das, Samudranil Pal**

*J. Organomet. Chem.* 691 (2006) 2575

Synthesis, characterization and structural studies of palladium(II) complexes with  $N$ -(*aroyl*)- $N'$ -(2,4-dimethoxybenzylidene)hydrazines

Synthesis and spectroscopic properties of three *ortho*-metallated species of general formula  $[PdL(PPh_3)]$  and a coordination complex  $trans-[Pd(HL)(PPh_3)_2Cl]$  with  $N$ -(4-R-benzoyl)- $N'$ -(2,4-dimethoxybenzylidene)hydrazines ( $H_2L$ ) are described. Crystal structures of all the complexes have been determined. Intra- and intermolecular non-covalent interactions have been scrutinized.



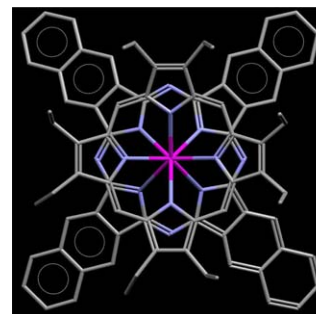
## Notes

**Ricardo O. Freire, Elizete V. do Monte, Gerd B. Rocha, Alfredo M. Simas**

*J. Organomet. Chem.* 691 (2006) 2584

AM1 Sparkle modeling of Er(III) and Ce(III) coordination compounds

The recently defined Sparkle/AM1 model is now extended to Er(III) and Ce(III). For the thirty-seven cerium(III) complexes and thirty-nine erbium(III) complexes considered, the Sparkle/AM1 unsigned mean error, for all interatomic distances between the Ln(III) ion and the ligand atoms of the first sphere of coordination, is 0.08 and 0.06 Å, a level of accuracy comparable to present day ab initio/ECP geometries, while being hundreds of times faster. Thus, Sparkle/AM1 model may prove useful for luminescent complex design.



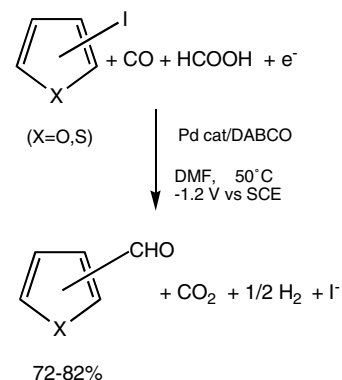
Sparkle/AM1  
Er(III)  
Ce(III)



**Isabella Chiarotto, Marta Feroci***J. Organomet. Chem.* 691 (2006) 2589

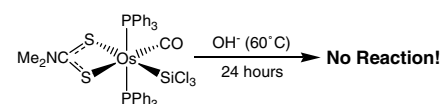
Electrosynthesis of heteroaromatic aldehydes by palladium-catalyzed carbonylation of heteroaromatic iodides in the presence of formic acid

The palladium-catalyzed electrocarbonylation of heteroaromatic iodides, performed in the presence of formic acid under one atmosphere of carbon monoxide, affords heteroaromatic aldehydes in moderate to good yields. It has been developed a new application of palladium-catalyzed formylation using carbon monoxide, formic acid and tertiary amines as ligands under electrochemical reducing conditions.

**Wai-Him Kwok, Guo-Liang Lu, Clifton E.F. Rickard, Warren R. Roper, L. James Wright***J. Organomet. Chem.* 691 (2006) 2593

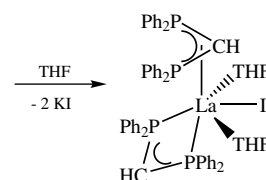
The structurally characterised silyl complexes,  $\text{Os}(\kappa^2\text{-S}_2\text{CNMe}_2)(\text{SiMeCl}_2)(\text{CO})(\text{PPh}_3)_2$  and  $\text{Os}(\kappa^2\text{-S}_2\text{CNMe}_2)(\text{SiCl}_3)(\text{CO})(\text{PPh}_3)_2$ , which have remarkably unreactive Si-Cl bonds

$\text{Os}(\kappa^2\text{-S}_2\text{CNMe}_2)(\text{SiMeCl}_2)(\text{CO})(\text{PPh}_3)_2$  or  $\text{Os}(\kappa^2\text{-S}_2\text{CNMe}_2)(\text{SiCl}_3)(\text{CO})(\text{PPh}_3)_2$  result from treatment of  $\text{Os}(\kappa^2\text{-S}_2\text{CNMe}_2)\text{H}(\text{CO})(\text{PPh}_3)_2$  with either  $\text{HSiMeCl}_2$  or  $\text{HSiCl}_3$ , respectively. The crystal structures of both silyl complexes have been determined and in solution both compounds are extraordinarily unreactive towards hydroxide ions, even under forcing conditions.

**Stephen T. Liddle, Keith Izod***J. Organomet. Chem.* 691 (2006) 2599

Synthesis and crystal structure of the heteroleptic lanthanum(III) bis-diphosphino-methanide complex  $[\text{La}\{\text{CH}(\text{PPh}_2)_2\}_2(\text{I})(\text{THF})_2]$

Reaction of two equivalents of  $[\text{K}\{\text{CH}(\text{PPh}_2)_2\}(\text{OEt})_{0.5}]$  with  $\text{LaI}_3(\text{THF})_4$  affords  $[\text{La}\{\text{CH}(\text{PPh}_2)_2\}_2(\text{I})(\text{THF})_2]$ , which exhibits  $\kappa^2\text{-PP}$  and  $\eta^3\text{-PCP}$  coordination modes of the two diphosphinomethanide ligands in the solid state.

 $\text{LaI}_3(\text{THF})_4 + 2 [\text{K}\{\text{CH}(\text{PPh}_2)_2\}(\text{OEt})_{0.5}]$ 

Erratum ..... 2604