

## Contents

### Special Issue: III EuChem Conference on Nitrogen Ligands in Organometallic Chemistry and Homogeneous Catalysis

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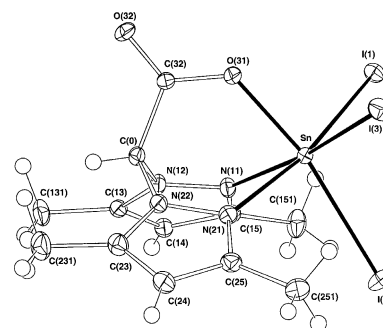
#### Regular Papers

**Fabio Marchetti, Maura Pellei, Claudio Pettinari, Riccardo Pettinari, Eleonora Rivarola, Carlo Santini, Brian W. Skelton, Allan H. White**

*J. Organomet. Chem. 690 (2005) 1878*

Tin(IV) and organotin(IV) derivatives of bis(pyrazolyl)acetate: Synthesis, spectroscopic characterization and behaviour in solution. X-ray single crystal study of bis(pyrazol-1-yl)acetatetri-iodotin(IV) [SnI<sub>3</sub>(bdmpza)]

Bis(pyrazol-1-yl)acetate ligands react with tin(IV) and organotin(IV) acceptors affording 1:1 *fac*-octahedral derivatives, characterized in the solid state and solution. Neutral bis(pyrazol-1-yl)acetic acid reacts with monorganotin(IV) and tin(IV) chloride in the absence of base yielding 1:1 octahedral adducts, where only nitrogen atoms of bis(pyrazol-1-yl)acetate are coordinated to tin.

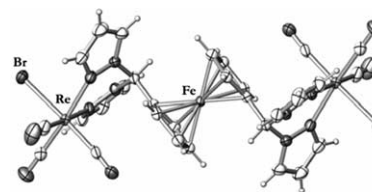


**Daniel L. Reger, Kenneth J. Brown, James R. Gardinier, Mark D. Smith**

*J. Organomet. Chem. 690 (2005) 1889*

Syntheses and structural characterizations of rhenium carbonyl complexes of a bitopic ferrocene-linked bis(pyrazolyl)methane ligand

The reaction between Fe[C<sub>5</sub>H<sub>4</sub>CH(pz)<sub>2</sub>]<sub>2</sub> (pz = pyrazolyl ring) and two equivalents of Re(CO)<sub>5</sub>Br in refluxing toluene produces Fe[C<sub>5</sub>H<sub>4</sub>CH(pz)<sub>2</sub>Re(CO)<sub>5</sub>Br]<sub>2</sub> (**1**) in high yield. A similar reaction with a ligand/rhenium ratio of slightly greater than one yields mainly **1** and a low yield of Fe[C<sub>5</sub>H<sub>4</sub>CH(pz)<sub>2</sub>Re(CO)<sub>5</sub>Br][C<sub>5</sub>H<sub>4</sub>CH(pz)<sub>2</sub>] (**2**).

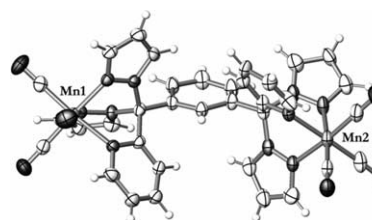


**Daniel L. Reger, James R. Gardinier, T. Christian Grattan, Mark D. Smith**

*J. Organomet. Chem. 690 (2005) 1901*

Tricarbonylmanganese(I) derivatives of [Di(pyrazolyl)(2-pyridyl)methyl]aryl scorpionates

The cobalt(II) chloride catalyzed Peterson rearrangement reactions between sulfinyldi(pyrazolyl) and aryl(pyridyl)methanone derivatives yield di(pyrazolyl)(pyridyl) hetero-scorpionate ligands.

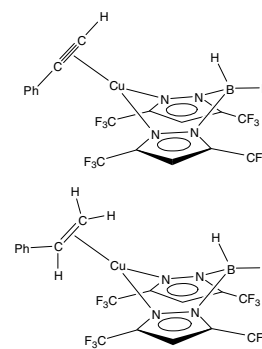


**H.V. Rasika Dias, Sharon A. Richey,  
Himashinie V.K. Diyabalanage,  
Jose Thankamani**

*J. Organomet. Chem. 690 (2005) 1913*

Copper(I) complexes supported by a heavily fluorinated bis(pyrazolyl)borate: syntheses and characterization of  $[H_2B(3,5-(CF_3)_2Pz)_2]CuL$  (where  $L = PPh_3, N\equiv CCH_3, HC\equiv CPh, H_2C=CHPh$ ) and  $\{[H_2B(3,5-(CF_3)_2Pz)_2]Cu\}_2(1,5-COD)$

The fluorinated bis(pyrazolyl)borate  $[H_2B(3,5-(CF_3)_2Pz)_2]^-$  allows the isolation of thermally stable copper(I) complexes containing phosphorus and nitrogen based donors, and unsaturated hydrocarbon ligands like alkenes and alkynes.

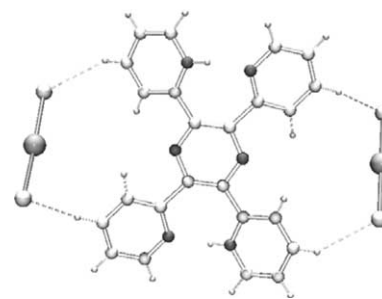


**M. Carla Aragoni, Massimiliano Arca,  
Francesco A. Devillanova,  
Michael B. Hursthouse, Susanne L. Huth,  
Francesco Isaia, Vito Lippolis,  
Annalisa Mancini, Helen R. Ogilvie,  
Gaetano Verani**

*J. Organomet. Chem. 690 (2005) 1923*

Reactions of pyridyl donors with halogens and interhalogens: an X-ray diffraction and FT-Raman investigation

X-ray diffraction, FT-Raman spectroscopy and MP2/DFT theoretical calculations have been used to elucidate the nature of the products isolated from the reactions between three pyridyl donors, *N*-ethyl-*N'*-3-pyridyl-imidazolidine-4,5-dione-2-thione (**1**), *N,N'*-bis(3-pyridylmethyl)-imidazolidine-4,5-dione-2-thione (**2**), and tetra-2-pyridyl-pyrazine (**3**), and  $Br_2, I_2, IBr,$  and  $ICl$ . Both  $\sigma$ -type CT-adducts and polyhalide salts of the protonated donors have been characterised.

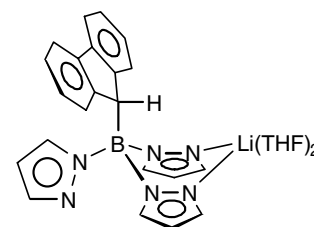


**Susanne Bieller, Michael Bolte,  
Hans-Wolfram Lerner, Matthias Wagner**

*J. Organomet. Chem. 690 (2005) 1935*

Synthesis and structural characterization of fluorenyltris(pyrazol-1-yl)borate ligands as new examples of cyclopentadienyl/scorpionate hybrid ligands

Fluorenyltris(pyrazol-1-yl)borate hybrid ligands have been prepared, which are of potential use for the generation of dinuclear aggregates as well as mononuclear constrained-geometry complexes.

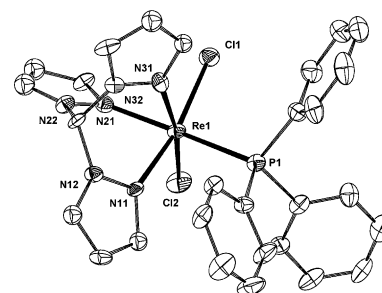


**Elisabete C.B. Alegria,  
Luísa M.D.R.S. Martins,  
M. Fátima C. Guedes da Silva,  
Armando J.L. Pombeiro**

*J. Organomet. Chem. 690 (2005) 1947*

Syntheses and properties of Re(III) complexes derived from hydrotris(1-pyrazolyl)methanes: molecular structure of  $[ReCl_2(HCpz_3)(PPh_3)][BF_4]$

Hydrotris(1-pyrazolyl)methane, pyrazole and benzyldiazene complexes of Re(III) have been prepared from reactions of  $HCpz_3$  or  $HC(3,5-Me_2pz)_3$  with a benzoylhydrazide complex and their redox properties studied by cyclic voltammetry, allowing to estimate the Lever electrochemical  $E_L$  parameter for the  $HCpz_3$  and  $NNCOPh(-)$  ligands.

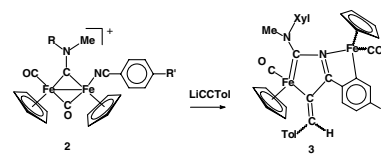


**Luigi Busetto, Fabio Marchetti,  
Stefano Zacchini, Valerio Zanotti,  
Eleonora Zoli**

*J. Organomet. Chem.* 690 (2005) 1959

Nitrile ligands activation in dinuclear amino-  
carbyne complexes

The diiron aminocarbyne complexes **2**, containing aryl nitrile ligands ( $p\text{-NCC}_6\text{H}_3\text{R}'$ ,  $\text{R}' = \text{H, Br, Ph, OMe, COOMe, CF}_3$ ) react with  $\text{ToIcCCLi}$  affording the corresponding complexes **3**. The reaction involves attack of the acetylide to the coordinated nitrile, C–N coupling with the bridging aminocarbyne together with orthometallation of the  $p$ -substituted aromatic ring and breaking of the Fe–Fe bond.

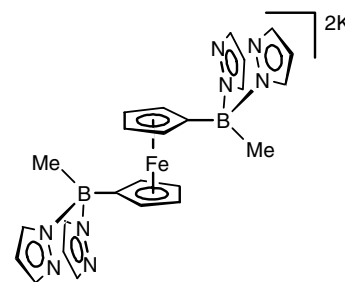


**Alireza Haghiri Ilkhechi, Michael Bolte,  
Hans-Wolfram Lerner, Matthias Wagner**

*J. Organomet. Chem.* 690 (2005) 1971

Synthesis and structural characterization of ferrocene-based bis(pyrazol-1-yl)borate ligands:  $\text{FcB}(\text{Me})\text{pz}_2\text{K}$ ,  $\text{Fc}_2\text{Bpz}_2\text{K}$ , and  $1,1'\text{-fc}[\text{B}(\text{Me})\text{pz}_2]_2\text{K}_2$  (Fc: ferrocenyl, fc: ferrocenylene, pz: pyrazolyl)

The potassium salts of three mono- and ditopic ferrocene-based heteroscorpionate ligands have been prepared, all of them revealing a double-decker sandwich structure with close  $\eta^5 \text{K} \cdots \text{Cp}$  contacts in the solid state.

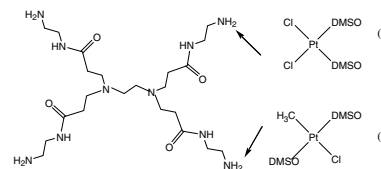


**Antonino Mazzaglia, Luigi Monsù Scolaro,  
Domenico Garozzo, Paola Malvagna,  
Raffaello Romeo**

*J. Organomet. Chem.* 690 (2005) 1978

Synthesis and characterization of poly-(amidoamine)-platinum(II) complexes. Detailed speciation by Matrix-Assisted Laser Desorption Ionization Mass Spectrometry

The complexes  $\text{cis-}[\text{Pt}(\text{DMSO})_2\text{Cl}_2]$  (**1**) and  $\text{trans-}[\text{Pt}(\text{DMSO})_2\text{Cl}(\text{CH}_3)]$  (**2**) react with the simplest poly(amidoamine) dendrimer forming a variety of products, which have been characterized through MALDI and ESI-MS, and NMR spectroscopy. Platinum (II) is bound to the peripheral primary amino groups of the ligand which exhibit enough flexibility to involve either one or two branches in the complexation process.

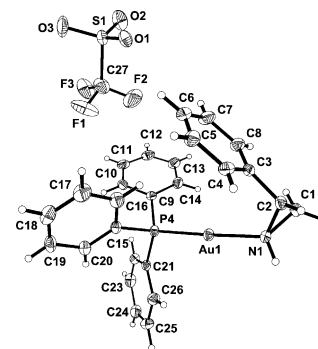


**Ingo-Peter Lorenz, Christoph Krininger,  
Roland Wilberger, Roman Bobka,  
Holger Piotrowski, Markus Warchhold,  
Heinrich Nöth**

*J. Organomet. Chem.* 690 (2005) 1986

Synthesis and molecular structures of the cationic gold(I)-aziridine complexes  $[\text{Ph}_3\text{PAuAz}]\text{O}_3\text{SCF}_3$  (Az =  $\text{C}_2\text{H}_4\text{NH}$ ,  $\text{CH}_2\text{CHMeNH}$ ,  $\text{CH}_2\text{CMe}_2\text{NH}$ ,  $\text{CH}_2\text{CHEtNH}$ ,  $\text{CH}_2\text{CHPhNH}$ ,  $\text{C}_2\text{H}_4\text{NBz}$ ,  $\text{C}_2\text{H}_4\text{NC}_2\text{H}_4\text{OH}$ )

The gold(I) complex  $\text{Ph}_3\text{PAuCl}$  (**1**) reacts in the presence of  $\text{AgO}_3\text{SCF}_3$  (=AgOTf) with a series of aziridines with various NH-, NR-, CHR- and  $\text{CR}_2$ -functionalities via halide elimination at ambient temperature, to give the cationic mixed phosphane-aziridine gold(I) complexes  $[\text{Ph}_3\text{PAuAz}]\text{OTf}$  (**2–8**) (Az = aziridine, 2-methylaziridine, 2,2-dimethylaziridine, 2-ethylaziridine 2-phenylaziridine, *N*-benzylaziridine, *N*-hydroxyethylaziridine).

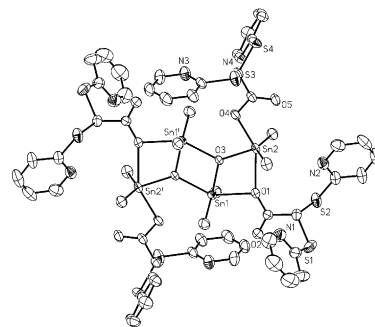


**Franco Benetollo, Giancarlo Gioia Lobbia, Marilena Mancini, Maura Pellei, Carlo Santini**

*J. Organomet. Chem.* 690 (2005) 1994

Synthesis, characterization and hydrolytic behavior of new bis(2-pyridylthio)acetate ligand and related organotin(IV) complexes

The new sodium bis(2-pyridylthio)acetate ligand,  $\text{Na}[(\text{pyS})_2\text{CHCO}_2]$ , and its mono- and di-organotin(IV) derivatives have been synthesized and fully characterized. Attempts to crystallize the dimethyltin(IV) derivative yield the dimeric dicarboxylatotetramethyldistannoxane, which was characterized by single crystal diffraction analysis.

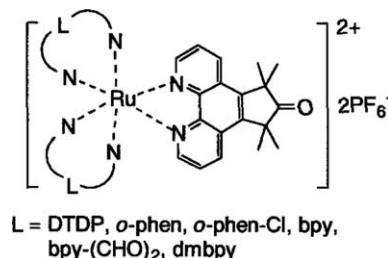


**Do Nam Lee, Jung Hyo Min, Hak Mook Kim, Young Moo Jun, Han Nim Choi, Won-Yong Lee, Byeong Hyo Kim**

*J. Organomet. Chem.* 690 (2005) 2002

Highly electrochemiluminescent Ru(II) complexes containing 1,3-dihydro-1,1,3,3-tetramethyl-7,8-diazacyclopenta[1]phenanthren-2-one ligand

A series of new ruthenium(II) complexes containing 1,3-dihydro-1,1,3,3-tetramethyl-7,8-diazacyclopenta[1]phenanthren-2-one (DTDP) ligand, such as  $[\text{Ru}(\text{DTDP})_n(\text{L})_{3-n}]^{2+}$  ( $\text{L} = 2,2'$ -bipyridyl (bpy), 4,4'-dimethyl-2,2'-bipyridyl (dmbpy), *o*-phenanthroline (*o*-phen), 5-chloro-*o*-phenanthroline (*o*-phen-Cl), 2,2'-bipyridine-4,4'-dicarboxaldehyde ( $\text{bpy}(\text{CHO})_2$ ),  $n = 1, 2, 3$ ) were synthesized and examined as ECL materials.

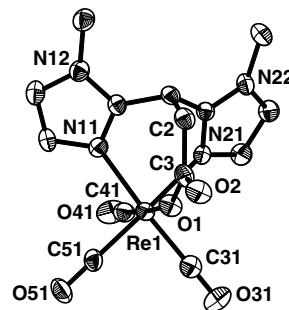


**Liv Peters, Eike Hübner, Nicolai Burzlaff**

*J. Organomet. Chem.* 690 (2005) 2009

The new facial tripod ligand 3,3-bis(1-methylimidazol-2-yl)propionic acid and carbonyl complexes thereof containing manganese and rhenium

The new monoanionic, facially coordinating tripod ligand 3,3-bis(1-methylimidazol-2-yl)propionate (bmip) is described. As first examples of its coordination properties the complexes  $[\text{Re}(\text{bmip})(\text{CO})_3]$  and  $[\text{Mn}(\text{bmip})(\text{CO})_3]$  are reported, which have been characterised by single crystal X-ray crystallography.

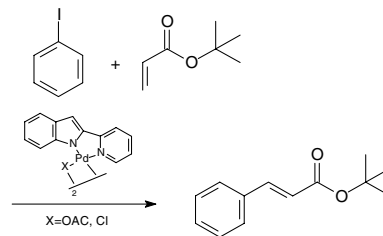


**Giancarlo Cravotto, Francesco Demartin, Giovanni Palmisano, Andrea Penoni, Tiziano Radice, Stefano Tollari**

*J. Organomet. Chem.* 690 (2005) 2017

Novel cyclometallated Pd(II) and Pt(II) complexes with indole derivatives and their use as catalysts in Heck reaction

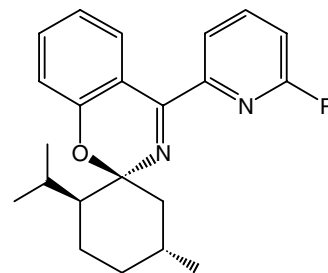
Synthesis and characterization of indole-based metallacycles are reported. The performance of some palladacycles as (pre)catalysts for the Heck cross-coupling reaction using iodobenzene and *tert*-butyl acrylate has been tested.



**Neeranat Thienthong, Patrick Perlmutter***J. Organomet. Chem.* 690 (2005) 2027

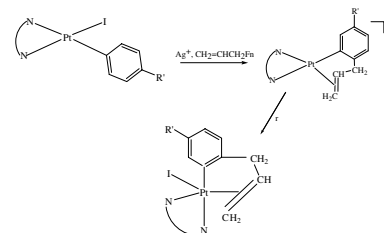
A new class of nitrogen based chiral ligands: 2*H*-1,3-benzoxazines. Ligand synthesis, X-ray structural studies and asymmetric catalysis

A new class of chiral ligands, based on the benzoxazin nucleus, has been designed and synthesized. Application of the chiral ligand in the palladium catalyzed-allylic substitution of 1,3-diphenyl-2-propenylacetate with dimethyl malonate gave enantioselectivities of up to 62%*ee*.

**Vincenzo De Felice, Augusto De Renzi, Natascia Fraldi, Giuseppina Roviello, Angela Tuzi***J. Organomet. Chem.* 690 (2005) 2035

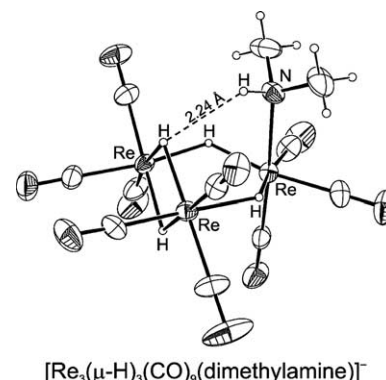
C–C coupling of aryl groups and allyl derivatives on Pt(II)-phenanthroline fragments: crystal and molecular structure of the *thp* [( $\eta^1, \eta^2$ -2-allyl,5-methyl-phenyl)-iodo(1,10-phenanthroline)platinum(II)] complex containing the N–N ligand in axial-equatorial coordination mode

Allyl compounds  $\text{CH}_2=\text{CHCH}_2\text{Fn}$  bearing electron-withdrawing functional (Fn) groups mainly react with cationic {Pt(aryl)(1,10-phenanthroline)}<sup>+</sup> fragments affording, after HF<sub>n</sub> elimination, the *ortho* organic fragment (*Pt*)-aryl- $\text{CH}_2\text{CH}=\text{CH}_2$   $\eta^1, \eta^2$ -chelate to the platinum. The X-ray crystal structure of the title five-coordinate complex shows a distorted *thp* arrangement of the ligands with the iodide in the equatorial plane and the unusual axial-equatorial coordination mode of 1,10-phenanthroline.

**Monica Panigati, Pierluigi Mercandelli, Giuseppe D'Alfonso, Tiziana Beringhelli, Angelo Sironi***J. Organomet. Chem.* 690 (2005) 2044

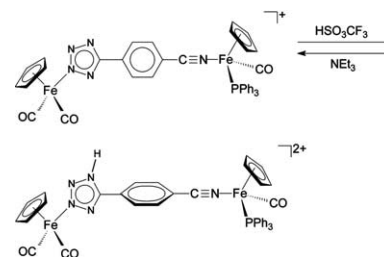
A dihydrogen bond between a bridging hydride and the NH proton of a coordinated dimethylamine: solid state, solution and theoretical characterization

The addition of one equivalent of dimethylamine (DMA) to the “super-unsaturated” cluster anion  $[\text{Re}_3(\mu_3\text{-H})(\mu\text{-H})_3(\text{CO})_9]^-$  affords the novel unsaturated derivative  $[\text{Re}_3(\mu\text{-H})_4(\text{CO})_9(\text{DMA})]^-$  in which an intramolecular dihydrogen bond is present. This interaction has been characterized in the solid state, in solution and by theoretical computations.

**Antonio Palazzi, Stefano Stagni***J. Organomet. Chem.* 690 (2005) 2052

Synthesis and NMR characterization of dinuclear Fe(II) organometallic complexes containing a non-equivalently bridging 5-aryl tetrazolate ligand

The synthesis and the spectroscopic (IR; <sup>1</sup>H and <sup>13</sup>C NMR) characterization of a wide range of new dinuclear complexes of the type  $[\text{Cp}(\text{CO})(\text{L})\text{Fe}-\text{N}_4\text{C}-\text{C}_6\text{H}_4-\text{CN}-\text{Fe}(\text{L})(\text{CO})-\text{Cp}][\text{SO}_3\text{CF}_3]$  is reported. The interannular conjugation effect which is shown by the bridging  $[\text{N}_4\text{C}-\text{C}_6\text{H}_4-\text{CN}]^-$  ligand represents a promising feature for the incorporation of 5-aryltetrazole-based compounds on bi- or polymetallic arrays. Moreover, the extent of  $\pi$ -delocalization can be modified either in permanent way, by addition of  $\text{CH}_3^+$ , or reversibly by a proton addition–elimination mechanism.

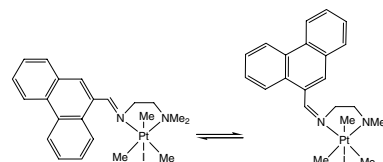


**Ramón Bosque, Margarita Crespo,  
Emilia Evangelio, Mercè Font-Bardía,  
Xavier Solans**

*J. Organomet. Chem.* 690 (2005) 2062

Oxidative addition to dimethylplatinum (II) compounds containing bulky nitrogen ligands: crystal structures of compounds  $[\text{PtMe}_2\text{I}\{\text{(Me}_2\text{NCH}_2\text{CH}_2\text{NCHAr)}\}]$  (Ar = phenanthryl or anthryl)

Oxidative addition of methyl iodide to platinum(II) compounds containing phenanthryl or anthryl groups produced the corresponding platinum(IV) compounds. Isomerisation processes were studied and DFT calculations have been performed.



**Roberto Gazzi, Francesca Perazzolo,  
Silvana Sostero, Arlen Ferrari,  
Orazio Traverso**

*J. Organomet. Chem.* 690 (2005) 2071

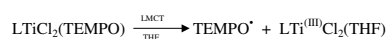
Photochemistry of tris(pyrazolyl)borate titanium(IV) complexes

Complexes  $\text{LTiCl}_3$  (**1,2**) (**1**: L = Tp = hydrotris(pyrazol-1-yl)borate, **2**: L = Tp\* = hydrotris(3,5-dimethylpyrazol-1-yl)borate) show LMCT absorption at  $\lambda = 315$  nm and at  $\lambda = 328$  nm, respectively. Photolysis of **1** and **2** in THF generated radical species L and  $\text{TiCl}_3(\text{THF})$  in the primary photochemical processes. Photolysis of  $\text{LTiCl}_2(\text{TEMPO})$  (**5,6**) (**5**: L = Tp, **6**: L = Tp\*, TEMPO = 2,2,6,6-tetramethyl-1-piperidinyloxy) generate Ti(III) and the TEMPO radical in the primary photochemical event. The primary photoproducts have been studied by ESR and electronic spectroscopy.



**1,2**

**1**: L = Tp; **2**: L = Tp\*



**5,6**

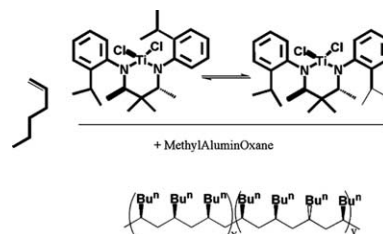
**5**: L = Tp; **6**: L = Tp\*

**Frank Heatley, Francis S. Mair,  
Robin G. Pritchard, Rebecca J. Woods**

*J. Organomet. Chem.* 690 (2005) 2078

$C_2$ - and  $C_s$ -symmetric diamidodichlorotitanium complexes: Syntheses, structures and 1-hexene polymerization catalysis

A new highly-active  $C_2$ -symmetric diamido-titanium catalyst is described which polymerizes 1-hexene with moderate block tacticity control when activated with MAO. A bulkier  $C_s$ -symmetric analogue is inactive.

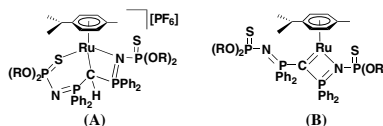


**Victorio Cadierno, Josefina Díez,  
Joaquín García-Álvarez, José Gimeno**

*J. Organomet. Chem.* 690 (2005) 2087

Novel ( $\eta^6$ -arene)-ruthenium(II) complexes containing bis(iminophosphorano)methanide and methandiide ligands

Complexes  $[\text{Ru}(\eta^6\text{-}p\text{-cymene})(\kappa^3\text{-}C,N,S\text{-CH}_2\text{P}\{\text{=NP(=S)(OR)}_2\}\text{Ph}_2\}_2)]$  [ $\text{PF}_6$ ] (**A**) and  $[\text{Ru}(\eta^6\text{-}p\text{-cymene})(\kappa^2\text{-}C,N\text{-C}\{\text{P}\{\text{=NP(=S)(OR)}_2\}\text{Ph}_2\}_2)]$  (**B**) have been prepared from the novel *N*-thiophosphorylated bis(iminophosphorano)methane ligands  $\text{CH}_2\{\text{P}\{\text{=NP(=S)(OR)}_2\}\text{Ph}_2\}_2$  (R = Ph, Et), via deprotonation of the methylenic  $\text{PCH}_2\text{P}$  unit.





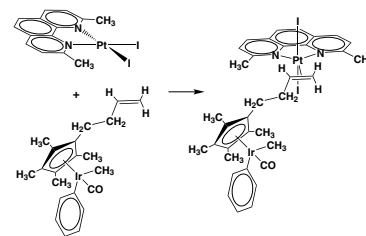
**Paride Papadia, Antonella Ciccarese,  
Jesus A. Miguel-Garcia, Peter M. Maitlis,  
Francesco P. Fanizzi**

*J. Organomet. Chem.* 690 (2005) 2097

Olefin uptake as tool for linking platinum(II) and iridium(III) in heterobinuclear complexes: Synthesis and characterization of  $[\text{PtI}_2(\text{Me}_2\text{phen})]\{(\text{C}_5\text{Me}_4\text{CH}_2\text{CH}_2\text{CH}=\text{CH}_2)\text{Ir}(\text{Me})(\text{CO})(\text{Ph})\}$

The ability of  $[\text{PtX}_2(\text{Me}_2\text{phen})]$  (X = Cl, Br or I) complexes to give olefin uptake leading to five-coordinated platinum(II) species  $[\text{PtX}_2(\text{Me}_2\text{phen})-$

$(\eta^2\text{-olefin})]$ , can be used for the preparation of binuclear heterometallic compounds provided that olefinic function is covalently bound to another metal complex and available for coordination to platinum.  $[\text{PtI}_2(\text{Me}_2\text{phen})]$  reacts with  $[(\text{C}_5\text{Me}_4\text{CH}_2\text{CH}_2\text{CH}=\text{CH}_2)\text{Ir}(\text{Me})(\text{CO})(\text{Ph})]$ , a cyclopentadienyl complex containing an olefinic function introduced by ring methyl activation in the pentamethylcyclopentadienyl iridium(III) complex  $[(\text{C}_5\text{Me}_5)\text{Ir}(\text{Me})(\text{CO})(\text{Ph})]$ , to give  $[\text{PtI}_2(\text{Me}_2\text{phen})]\{(\text{C}_5\text{Me}_4\text{CH}_2\text{CH}_2\text{CH}=\text{CH}_2)\text{Ir}(\text{Me})(\text{CO})(\text{Ph})\}$ . The Pt–Ir heterometallic binuclear complex is air and solution stable and has been completely characterized by elemental analysis,  $^1\text{H}$ ,  $^{13}\text{C}$  and  $^{195}\text{Pt}$  NMR spectroscopy.

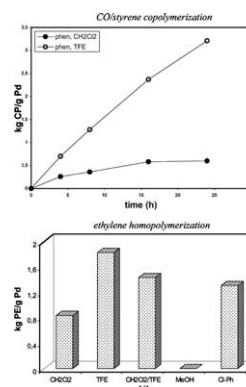


**Alessandro Scarel, Jérôme Durand,  
Davide Franchi, Ennio Zangrando,  
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*J. Organomet. Chem.* 690 (2005) 2106

Trifluoroethanol: key solvent for palladium-catalyzed polymerization reactions

A series of organometallic, monocationic, monochelated Pd(II) complexes with different nitrogen-donor ligands is reported together with their characterization both in solid state and in solution. The synthesized complexes act as efficient precatalysts for the CO/styrene copolymerization reaction, evidencing the positive effect of trifluoroethanol both on productivity and on molecular weight of the obtained polyketones. The role of the fluorinated alcohol is clearly evidenced even in the ethylene homopolymerization, allowing, for the first time, the synthesis of polyethylene in an alcoholic medium.

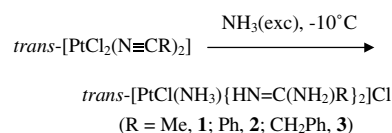


**Giovanni Natile, Francesco P. Intini,  
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*J. Organomet. Chem.* 690 (2005) 2121

Synthesis and characterisation of the amidine complexes  $\text{trans-}[\text{PtCl}(\text{NH}_3)\{\text{HN}=\text{C}(\text{NH}_2)\text{R}\}_2]\text{Cl}$  (R = Me, Ph,  $\text{CH}_2\text{-Ph}$ ) derived from addition of  $\text{NH}_3$  to the coordinated nitriles in  $\text{trans-}[\text{PtCl}_2(\text{N}\equiv\text{CR})_2]$

The di-nitrile complexes  $\text{trans-}[\text{PtCl}_2(\text{N}\equiv\text{CR})_2]$  (R = Me, Ph,  $\text{CH}_2\text{Ph}$ ) react with  $\text{NH}_3$  to form, in high yield, the corresponding di-amidine complexes  $\text{trans-}[\text{PtCl}(\text{NH}_3)\{\text{HN}=\text{C}(\text{NH}_2)\text{R}\}_2]\text{Cl}$  in which also one chlorine ligand has been displaced by  $\text{NH}_3$ . The  $^1\text{H}$  NMR spectra in DMSO showed the formation of different solvated species which were characterized through NOESY, TOCSY and  $^1\text{H}/^{13}\text{C}$  heteronuclear correlations as  $\text{trans-}[\text{Pt}(\text{NH}_3)\{\text{HN}=\text{C}(\text{NH}_2)\text{R}\}_2(\text{DMSO})]^{2+}$  and  $\text{trans-}[\text{PtCl}\{\text{HN}=\text{C}(\text{NH}_2)\text{R}\}_2(\text{DMSO})]^+$ .

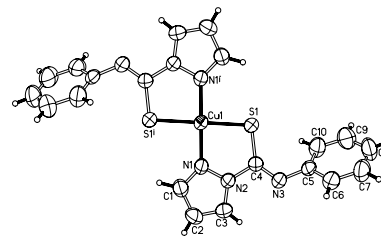


**Moayad Hossaini Sadr, Ali Reza Jalili,  
Habib Razmi, Seik Weng Ng**

*J. Organomet. Chem.* 690 (2005) 2128

A new family of pyrazolyl-based anionic bidentate ligands and crystal structure of bis(*N*-phenyl-2-pyrazolyl-1-carboximidothioato)copper(II)

New N,S-donor bidentate pyrazolyl-based anionic ligands  $[\text{PhNCSPz}]^-$ ,  $[\text{PhNCS-Pz}^{\text{Me}_2}]^-$  and  $[\text{PhNCSPz}^{\text{Ph}_2}]^-$  have been synthesized via reaction of phenylisothiocyanide and appropriate sodium-pyrazolate salts and characterized by the common spectroscopic and analytical methods. The Cu(II) complexes of these anionic chelate ligands have been characterized and the crystal structure of  $\text{Cu}(\text{PhNCSPz})_2$  has been determined.

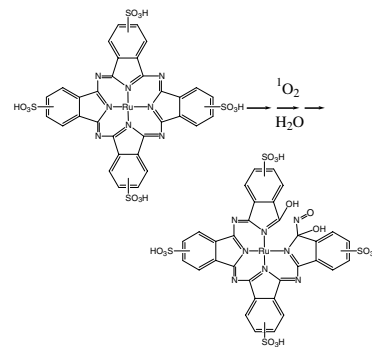


**N. d'Alessandro, L. Tonucci, A. Morvillo,  
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*J. Organomet. Chem.* 690 (2005) 2133

Thermal stability and photostability of water solutions of sulfophthalocyanines of Ru(II), Cu(II), Ni(II), Fe(III) and Co(II)

The thermal and photochemical stabilities of some metal tetrasulfophthalocyanines (metal = Cu, Co, Ni, Fe, Ru) and of two Ru-monosulfophthalocyanines were investigated by NMR, UV-Vis and ESI-MS techniques. The thermal treatment degraded the phthalocyanines to final products without the formation of spectroscopically detectable intermediates. Instead, a stable intermediate was detected when the RuPcS complexes were irradiated by UV light (254 nm). The most probable molecular formula of this new complex is a cleaved ring, containing an -NO group and two -OH groups that are all bonded at the two extremities of the open-chain molecule.

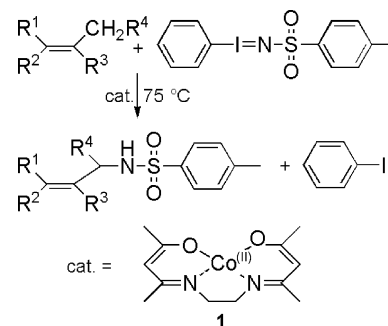


**Alessandro Caselli, Emma Gallo,  
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*J. Organomet. Chem.* 690 (2005) 2142

Catalytic amination reactions mediated by Co(II) Schiff base complexes

Co(acacen), **1**, (acacen = 2,11-dihydroxy-4,9-dimethyl-5,8-diaza-2,4,8,10-dodecetetraene dianion) was found to be a highly efficient catalyst for the allylic amination of alkenes and the amination of toluene, using *N*-(*p*-toluenesulfonyl)iminophenyliodinane (PhI=NTs) as nitrene precursor.

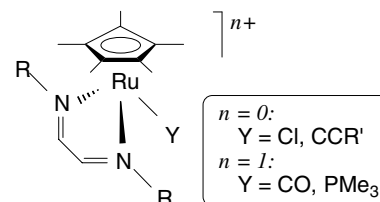


**Mbaye D. Mbaye, Bernard Demerseman,  
Jean-Luc Renaud, Christian Bruneau**

*J. Organomet. Chem.* 690 (2005) 2149

$\alpha$ -Diimines as nitrogen ligands for ruthenium-catalyzed allylation reactions and related (pentamethylcyclopentadienyl) ruthenium complexes

Neutral and cationic Cp\*( $\alpha$ -diimine)Ru(II) complexes have been synthesized and studied as catalyst precursors for allylation of diethyl-sodiomalonnate and diethylamine with cinnamyl acetate or ethyl cinnamyl carbonate.





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