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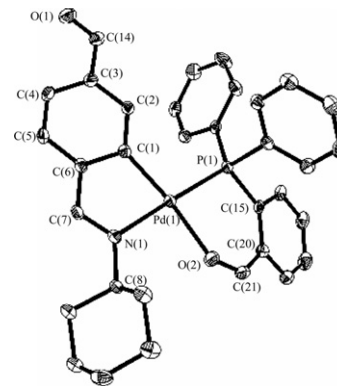
Regular Papers

Raquel Ares, Margarita López-Torres, Alberto Fernández, Digna Vázquez-García, M. Teresa Pereira, José M. Vila, Leticia Naya, Jesús J. Fernández

J. Organomet. Chem. 692 (2007) 4197

New developments in the studies of the reactivity of cyclometallated palladium(II) compounds with homo- ([P,P],[As,As]) and heterobidentate ([P,N],[P,O]) ligands

The crystal structure of the first cyclometalated palladium PCHO complex containing a σ -bonded aldehyde group is reported, along with other palladacycles, containing phosphorus donor ligands.

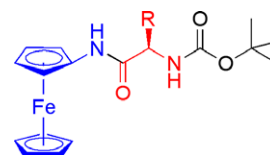


Jorge L. Jios, Srećko I. Kirin, Norma N. Buceta, Thomas Weyhermüller, Carlos O. Della Védova, Nils Metzler-Nolte

J. Organomet. Chem. 692 (2007) 4209

Synthesis and structural characterization of metallated bioconjugates: C-terminal labeling of amino acids with aminoferrocene

The first amino acid derivatives of aminoferrocene are reported. Six derivatives with different R groups, derived from naturally occurring amino acids were prepared. The glycine derivative has been structurally characterized and hydrogen bonding interactions were investigated by CD and NMR spectroscopy.

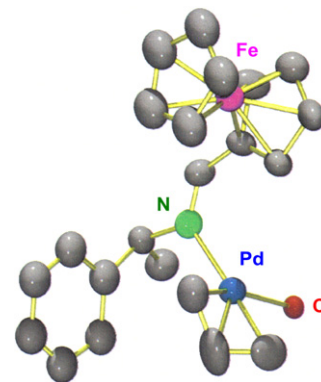


Ana E. Platero-Prats, Sonia Pérez, Concepción López, Xavier Solans, Mercè Font-Bardía, Piet W.N.M. van Leeuwen, Gino P.F. van Strijdonck, Zoraida Freixa

J. Organomet. Chem. 692 (2007) 4215

Palladium(II)-allyl complexes containing chiral N-donor ferrocenyl ligands

A comparative study of the reactivity of (S_C)-[FcCH=N-C(H)(R²)(R¹)] (Fc = (η^5 -C₅H₅)-Fe(η^5 -C₅H₄), R¹ = Ph, R² = Me (**1a**) or R¹ = CH₂OH and R² = Me (**1b**) or CHMe₂ (**1c**)) with the allyl-palladium(II) complexes [Pd(η^3 -1R¹,3R²-C₃H₃)(μ -Cl)]₂ (R¹ = H and R² = H or Ph or R¹ = R² = Ph) is described. The catalytic activity of **1** in the allylic alkylation of (*E*)-3-phenyl-2-propenyl acetate with sodium diethyl 2-methylmalonate is also reported.

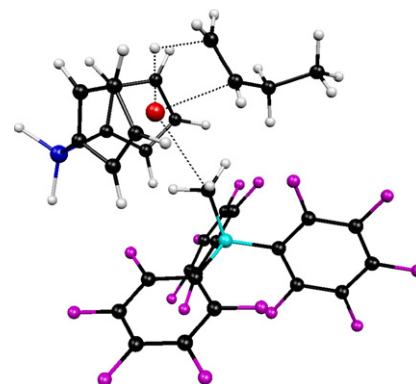


Julien Pilmé, Vincenzo Busico, Maurizio Cossi, Giovanni Talarico

J. Organomet. Chem. 692 (2007) 4227

A possible 2,1→3,1 isomerization mechanism in zirconocene-catalyzed propene polymerization: An application of the density functional theory and combined ONIOM approach

A possible 2,1 (secondary) → 3,1 unimolecular isomerization mechanism promoted by a prototype of zirconocene alkyl complex $H_2SiCp_2Zr^+(s\text{-butyl})$ has been found energetically accessible both in absence and in presence of the typical counterion $CH_3B(C_6F_5)_3^-$.

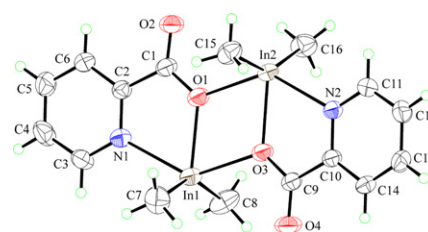


Manoj K. Pal, Nisha P. Kushwah, Amey P. Wadawale, V.S. Sagoria, Vimal K. Jain, Edward R.T. Tiekink

J. Organomet. Chem. 692 (2007) 4237

Diorgano-gallium and -indium complexes with *N*-heterocyclic carboxylic acids: Synthesis, characterization and structures of $[Me_2M(O_2C-C_5H_4N-2)]_2$ (M = Ga or In)

The reaction of triorgano-gallium and -indium etherate with heterocyclic carboxylic acids in benzene at room temperature yields complexes of the type $[R_2M(L)]_n$ (M = Ga or In; R = Me or Et; L = 2-(C₅H₄N)CO₂, 2-(C₄H₃N₂)CO₂ or 2-(C₉H₆N)CO₂). Single crystal X-ray structural analysis of $[Me_2M(O_2C-C_5H_4N-2)]_2$ (M = Ga or In), revealed a dimeric structure with five-coordinate metal atoms arising from the presence of two tridentate bridging picolinate ligands.

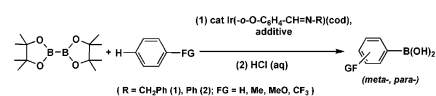


Zhu Yinghuai, Koh Cheng Yan, Luo Jizhong, Chong Siow Hwei, Yong Chun Hon, A. Emi, Su Zhenshun, Monalisa Winata, Narayan S. Hosmane, John A. Maguire

J. Organomet. Chem. 692 (2007) 4244

Iridium(I)-salicylaldiminato-cyclooctadiene complexes used as catalysts for phenylborylation

Iridium(I) salicylaldiminato-cyclooctadiene complexes **1** and **2** have been prepared, characterized and used as catalysts for arylborylation via C–H activation.

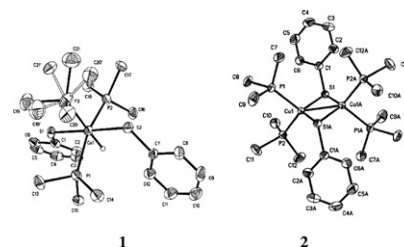


Guili Jiao, Xiaoyan Li, Hongjian Sun, Xiaofeng Xu

J. Organomet. Chem. 692 (2007) 4251

Synthesis and reactivity of a novel hydridocobalt(III) complex containing trimethylphosphine and thiophenolato ligands

The novel hydridocobalt(III) complex $[mer-Co(H)(SPh)_2(PMe_3)_3]$ (**1**) has been prepared by the reaction of PhSH with $[Co(PMe_3)_3Cl]$, $[Co(PMe_3)_4]$, and $[Co(PMe_3)_4Me]$. The new dinuclear cobalt complex $[Co(PMe_3)_2(SPh)]_2$ (**2**) was obtained as by-product from the reaction of PhSH and $[Co(PMe_3)_4Me]$. The crystal structures of **1** and **2** have been determined by X-ray crystallography. Reactions of **1** with iodomethane and of **2** with carbon monoxide were studied.

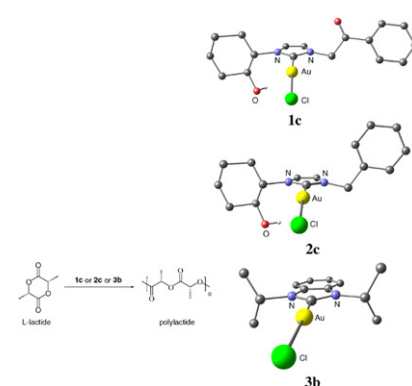


Lipika Ray, Vimal Katiyar, Samir Barman, Mustafa J. Raihan, Hemant Nanavati, Mobin M. Shaikh, Prasenjit Ghosh

J. Organomet. Chem. 692 (2007) 4259

Gold(I) N-heterocyclic carbene based initiators for bulk ring-opening polymerization of L-lactide

Synthesis, structures, and catalysis studies of gold(I) complexes of di-O-functionalized, mono-O-functionalized and non-functionalized N-heterocyclic carbenes are reported. The gold–NHC complexes efficiently catalyze ring-opening polymerization (ROP) of L-lactide under solvent-free melt conditions producing polylactide polymer of moderate to low molecular weights with narrow molecular weight distributions.

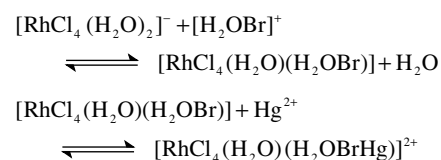


Ashok Kumar Singh, Reena Singh, Jaya Srivastava, Shahla Rahmani, Shalini Srivastava

J. Organomet. Chem. 692 (2007) 4270

Mechanistic studies of oxidation of maltose and lactose by $[\text{H}_2\text{OBr}]^+$ in presence of chloro-complex of Rh(III) as homogeneous catalyst

Kinetics and mechanism of oxidation of maltose and lactose, by *N*-bromoacetamide in presence of perchloric acid using chloro-complex of Rh(III) as homogeneous catalyst, have been studied. The proposed reaction scheme-1 includes the formation of most reactive activated complex, $[\text{RhCl}_4(\text{H}_3\text{O})\text{H}_2\text{OBr}]^+$, and an unreactive complex, $[\text{RhCl}_4(\text{H}_2\text{O})(\text{H}_2\text{OBrHg})]^{2+}$ as

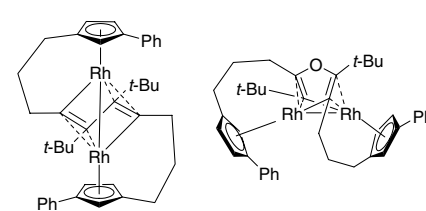


Carsten Schaefer, Rolf Gleiter, Frank Rominger

J. Organomet. Chem. 692 (2007) 4281

Photolysis of dicarbonyl(cyclopentadiene)rhodium complexes with a pendent alkyne unit

The photolysis of dicarbonyl(cyclopentadiene)rhodium complexes with a pendent alkyne unit led to the dirhodium complexes shown.

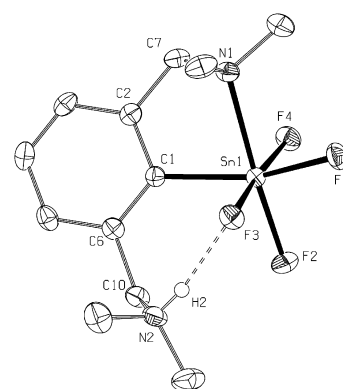


Petr Novák, Ivana Císařová, Lenka Kolářová, Aleš Růžicka, Jaroslav Holeček

J. Organomet. Chem. 692 (2007) 4287

Structure of *N,C,N*-chelated organotin(IV) fluorides

The set of tri-, di- and monoorganotin(IV) halides containing *N,C,N*-chelating ligand ($\text{L}^{\text{NCN}} = \{1,3-[(\text{CH}_3)_2\text{NCH}_2]_2\text{C}_6\text{H}_3\}^-$) has been reacted with various fluorinating agents to give monomeric with either covalent or ionic Sn–F bonds and oligomeric species which depolymerize to ionic or zwitterionic stannates depending on the solvent and fluorination method used.

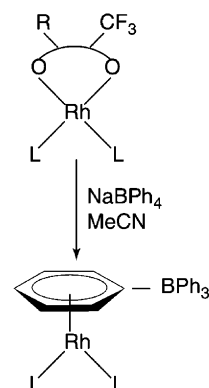


Elizaveta P. Shestakova, Yuri S. Varshavsky, Viktor N. Khrustalev, Ivan S. Podkorytov

J. Organomet. Chem. 692 (2007) 4297

A novel reaction producing the rhodium(I) complexes with π -coordinated tetraphenylborate anion, $(\pi\text{-}Ph\text{BPh}_3)^-$. X-ray study of $[\text{Rh}(\text{PPh}_3)_2(\pi\text{-}Ph\text{BPh}_3)]$

Phenyl group of anion $[\text{BPh}_4]^-$ replaces β -diketonate ligand in the complexes $[\text{Rh}(\beta\text{-diket})(\text{L})_2]$ yielding the complexes with π -coordinated tetraphenylborate anion, $[\text{Rh}(\text{PPh}_3)_2(\pi\text{-}Ph\text{BPh}_3)] \cdot 2\text{MeCN}$ and $[\text{Rh}(\text{Cod})(\pi\text{-}Ph\text{BPh}_3)]$.

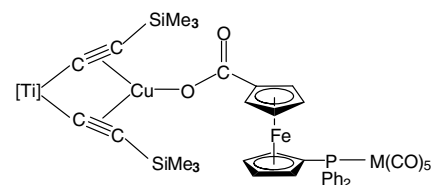


Janett Kühnert, Martin Lamač, Tobias Rüffer, Bernhard Walfort, Petr Štěpnička, Heinrich Lang

J. Organomet. Chem. 692 (2007) 4303

Heterobi- to heterotetrametallic transition metal complexes constructed from ferrocenecarboxylate and $[\{\text{Ti}\}(\mu\text{-}\sigma, \pi\text{-}\text{C}\equiv\text{CSiMe}_3)_2\text{-M}]^+$ units

The synthesis, properties and reaction chemistry of hetero- and tetrametallic complexes based on ferrocenecarboxylic and organometallic π -tweezer building blocks including Ti, Fe, Cu, Ag, Cr, Mo and W transition metal atoms is reported. The solid state structure of four compounds is discussed as well.

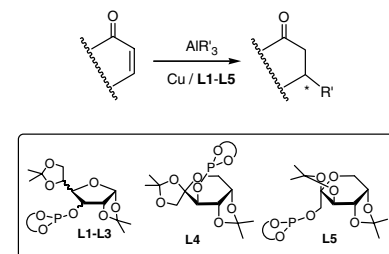


Yvette Mata, Montserrat Diéguez, Oscar Pàmies, Simon Woodward

J. Organomet. Chem. 692 (2007) 4315

Screening of a modular sugar-based phosphite ligand library in the Cu-catalyzed asymmetric 1,4-addition reactions

A sugar-based monophosphite ligand library **L1–L5** has been screened in the Cu-catalyzed asymmetric 1,4-addition of trialkylaluminum reagents to cyclic and aliphatic linear enones.

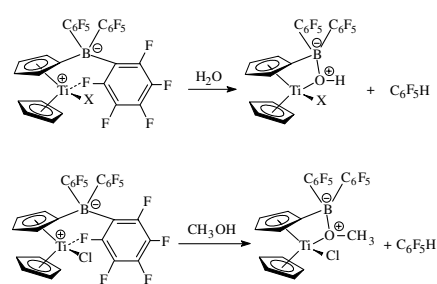


L.I. Strunkina, M.Kh. Minacheva, K.A. Lyssenko, P.V. Petrovskii, N.E. Mysova, B.N. Strunin, V.V. Burlakov, U. Rosenthal, V.B. Shur

J. Organomet. Chem. 692 (2007) 4321

Electrophilic reactivity of the zwitterionic titanocene monohalides $\text{Cp}[\eta^5\text{-C}_5\text{H}_4\text{B}(\text{C}_6\text{F}_5)_3]\text{TiX}$ ($\text{X} = \text{Cl}, \text{Br}$): Reactions with water and methanol

The paper reports on the easy protolytic cleavage of the inert $\text{B-C}_6\text{F}_5$ bond in the zwitterionic Ti(IV) complexes $\text{Cp}[\eta^5\text{-C}_5\text{H}_4\text{B}(\text{C}_6\text{F}_5)_3]\text{TiX}$ ($\text{X} = \text{Cl}, \text{Br}$) with water and methanol to afford pentafluorobenzene and the complexes $\text{Cp}[\eta^5\text{-C}_5\text{H}_4\text{B}(\text{C}_6\text{F}_5)_2]\text{TiX}(\mu\text{-OR})$, where $\text{X} = \text{Cl}, \text{Br}$, $\text{R} = \text{H}$; $\text{X} = \text{Cl}$, $\text{R} = \text{CH}_3$. The data obtained evidence for a high electrophilicity of the positively charged Ti atom in the starting zwitterions.

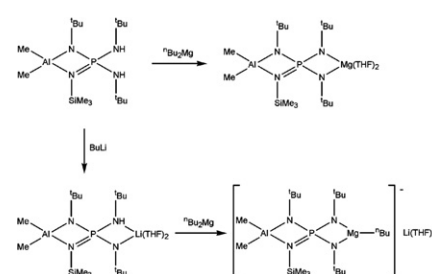


**Stuart D. Robertson, Tristram Chivers,
Jari Konu**

J. Organomet. Chem. 692 (2007) 4327

Organo-aluminum, zinc and magnesium derivatives of the imidotris(amido)phosphate Me₃SiNP(NH^tBu)₃

Double deprotonation of Me₂Al[(N^tBu)(NSiMe₃)P(NH^tBu)₂] with MgBu₂ gives the spiricyclic complex Me₂Al[(N^tBu)(NSiMe₃)P(N^tBu)₂Mg] · 2THF, the first non-lithiated heterobimetallic tetraimidophosphate complex. Monolithiation of Me₂Al[(N^tBu)(NSiMe₃)P(NH^tBu)₂] followed by reaction with MgBu₂ yields Me₂Al[(N^tBu)(NSiMe₃)P(NH^tBu)₂Mg^tBu]Li · 4THF, the first hetero-trimetallic complex of the tetraimidophosphate trianion.

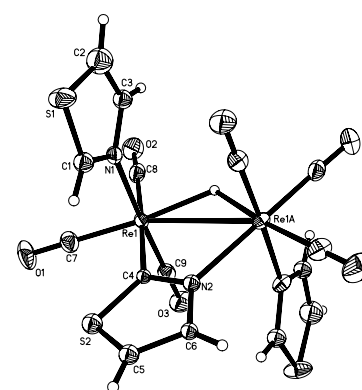


**Shariff E. Kabir, Faruque Ahmed,
Anamika Das, Mohammad R. Hassan,
Daniel T. Haworth, Sergey V. Lindeman,
G.M. Golzar Hossain, Tasneem A. Siddiquee,
Dennis W. Bennett**

J. Organomet. Chem. 692 (2007) 4337

Reactivity of [Re₂(CO)₈(MeCN)₂] with thiazoles: Hydrido bridged dirhenium compounds bearing thiazoles in different coordination modes

[Re₂(CO)₈(MeCN)₂] reacted with thiazole and 4-methylthiazole, respectively, by oxidative addition and η¹-coordination to furnish a series of new compounds [Re₂(CO)₇{μ-2,3-η²-C₃H(R)NS}{η¹-NC₃H₂(4-R)S}{μ-H}] (1, R = H; 2, R = CH₃), [Re₂(CO)₆{μ-2,3-η²-C₃H(R)NS}{η¹-NC₃H₂(4-R)S}₂{μ-H}] (3, R = H; 4, R = CH₃) and *fac*-[Re(CO)₃(Cl){η¹NC₃H₂(4-R)S}₂] (5, R = H; 6, R = CH₃).

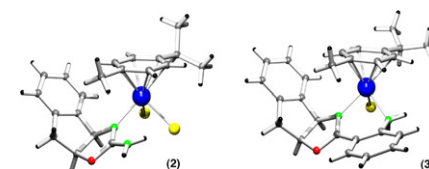


**Javier A. Cabeza, Iván da Silva,
Ignacio del Río, Robert A. Gossage,
Lorena Martínez-Méndez, Daniel Miguel**

J. Organomet. Chem. 692 (2007) 4346

Mononuclear ruthenium complexes containing chiral aminooxazolines: Syntheses, X-ray studies and catalytic activity

The synthesis and characterisation (NMR, X-ray, etc.) of Ru(II) complexes containing enantiopure aminooxazoline ligands is described. The complexes [RuCl₂(C₁₀H₁₄)(amphox)] (1: C₁₀H₁₄ = *p*-cymene), [RuCl₂(C₁₀H₁₄)(aminox)] (2) and [RuCl(C₁₀H₁₄)(aninox)]Cl (3) all show good activity but only modest enantioselectivity in transfer hydrogenation or [4+2] cycloaddition reactions.

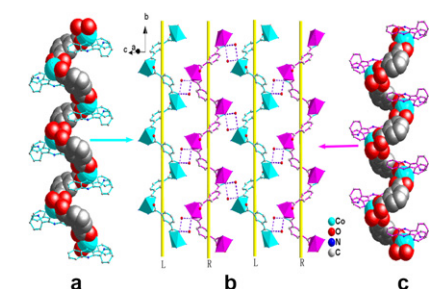


**Xiu-Li Wang, Yan-Feng Bi, Hong-Yan Lin,
Guo-Cheng Liu, Bao-Kuan Chen**

J. Organomet. Chem. 692 (2007) 4353

Hydrothermal synthesis, crystal structures and fluorescence properties of three novel frameworks constructed with mixed ligands of isophthalic acid (1,3-BDC) and 2,3-di-2-pyridylquinoxaline (Dpdq): [M(1,3-BDC)(Dpdq)(H₂O)_m] · nH₂O (M = Co^{II}, Cd^{II} or Zn^{II})

Three novel metal-organic frameworks [M(1,3-BDC)(Dpdq)(H₂O)_m] · nH₂O (M = Co^{II} (1), Cd^{II} (2) or Zn^{II} (3); m = 0, 1, 2, respectively) have been obtained from hydrothermal reactions. Compounds 1–3 exhibit three different chain structures which are bridged by V-shaped 1,3-BDC ligand and adjacent chains are further linked by hydrogen bonds and/or π–π stacking interactions to form high-dimensional (2-D or 3-D) supramolecular framework.

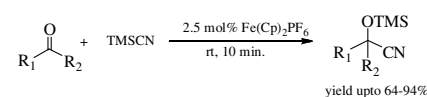


Noor-ul H. Khan, Santosh Agrawal,
Rukhsana I. Kureshy, Sayed H.R. Abdi,
Surendra Singh, Raksh V. Jasra

J. Organomet. Chem. 692 (2007) 4361

Fe(Cp)₂PF₆: An efficient catalyst for cyanosilylation of carbonyl compounds under solvent free condition

The addition of trimethylsilyl cyanide (TMSCN) to various aldehydes and ketones catalyzed by 2.5 mol% Fe(Cp)₂PF₆ as a catalyst was carried out under solvent free condition. Excellent yields of trimethylsilylether of cyanohydrin (65–94%) was achieved within 10 min.



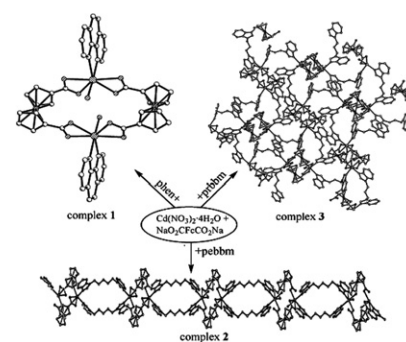
Liping Wang, Xiangru Meng, Erpeng Zhang,
Hongwei Hou, Yaoting Fan

J. Organomet. Chem. 692 (2007) 4367

Rational design and syntheses of 0-D, 1-D, and 2-D metal-organic frameworks (MOFs) from ferrocenedicarboxylate tetrametallic macrocyclic building units and subsidiary ligands

Three new metal-1,1'-ferrocenedicarboxylate complexes containing tetrametallic macrocyclic building units, namely, 0-D discrete

tetrametallic macrocyclic framework complex [Cd₂(η²-O₂CFeCO₂-η²)(phen)₂(H₂O)₂] · 4CH₃-OH (1), 1-D ribbon of rings complex {[Cd(η²-O₂CFeCO₂)(pebbm)(H₂O)] · 2H₂O}_n (2) and 2-D network complex {[Cd(η²-O₂CFeCO₂-η²)(prbbm)(H₂O)] · 3H₂O}_n (3) have been designed and synthesized. The structural features of these complexes indicate that the tetrametallic macrocyclic unit can be acted as a successful molecular building unit and the subsidiary organic ligands are capable of controlling the dimensions of the resultant MOFs.

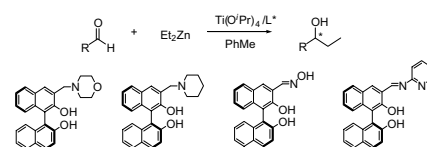


Fu-Yong Jiang, Bing Liu, Zhi-Bing Dong,
Jin-Shan Li

J. Organomet. Chem. 692 (2007) 4377

Titanium (IV) as an essential promoter in the asymmetric addition of diethylzinc to aldehydes catalyzed by aminonaphthol and imine ligands based on 3-substituted binaphthol

By using indirect reductive amination and condensation, two types of aminonaphthol and imine ligands based on 3-substituted binaphthol have been synthesized, respectively. When their catalytic effectiveness was tested by the ethylation of aldehydes with diethylzinc, titanium tetraisopropoxide was found essential to get good results with ee up to 90%.

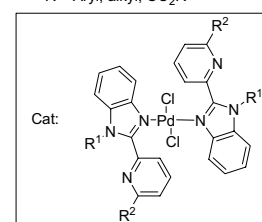
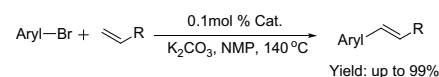


Weixuan Chen, Chanjuan Xi, Yongwei Wu

J. Organomet. Chem. 692 (2007) 4381

Highly active Pd(II) catalysts with pyridylbenzoimidazole ligands for the Heck reaction

Ten different palladium(II) complexes containing pyridylbenzoimidazole ligands have been investigated as catalyst for the coupling between aryl bromide and olefin. The substituents on the benzoimidazole and pyridine ring had significant influences on the catalytic properties. The catalyst 4 shows the highest reactivity of coupling reaction with aryl bromide in NMP with K₂CO₃ at 140 °C.

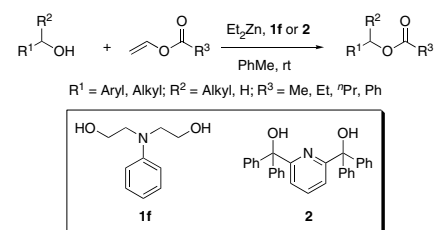


**Takashi Mino, Tae Hasegawa,
Yoshiaki Shirae, Masami Sakamoto,
Tsutomu Fujita**

J. Organomet. Chem. 692 (2007) 4389

N, O-ligand accelerated zinc-catalyzed transesterification of alcohols with vinyl esters

N-Phenyldiethanolamine (**1f**) is an efficient ligand for zinc-catalyzed transesterification of alcohols with vinyl acetate ($R^3 = \text{Me}$) at room temperature. In the case of using other vinyl esters ($R^3 = \text{Et}, n\text{-Pr}, \text{Ph}$), the corresponding products were easily obtained in the presence of pyridine-type ligand **2** instead of aminoalcohol **1f**.

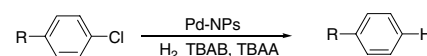


**Vincenzo Cal, Angelo Nacci,
Antonio Monopoli, Anna Damascelli,
Eliana Ieva, Nicola Cioffi**

J. Organomet. Chem. 692 (2007) 4397

Palladium-nanoparticles catalyzed hydrodehalogenation of aryl chlorides in ionic liquids

Pd-nanoparticles, in molten tetrabutylammonium bromide (TBAB) as the solvent and tetrabutylammonium acetate (TBAA) as the base, catalyze the hydrodehalogenation of various aryl chlorides under hydrogen at atmospheric pressure. Vacuum distillation is used as the work-up procedure to obtain an extensive recycling of the catalyst system.



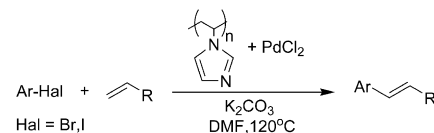
Notes

**Irina P. Beletskaya, Alexey R. Khokhlov,
Elena A. Tarasenko, Vladimir S. Tyurin**

J. Organomet. Chem. 692 (2007) 4402

Palladium supported on poly(*N*-vinylimidazole) or poly(*N*-vinylimidazole-*co*-*N*-vinylcaprolactam) as a new recyclable catalyst for the Mizoroki–Heck reaction

A new catalytic system based on the palladium supported on poly(*N*-vinylimidazole) or poly(*N*-vinylimidazole-*co*-*N*-vinylcaprolactam) was investigated. High efficiency of the catalyst along with its recycling ability was demonstrated in the Mizoroki–Heck reaction.



**Javier A. Cabeza, Ignacio del Río,
Lorena Martínez-Méndez, Daniel Miguel**

J. Organomet. Chem. 692 (2007) 4407

Synthesis and characterization of a tetra-ruthenium butterfly cluster containing a quadruply-bridging ligand derived from an *N, N'*-dipyrid-2-ylurea

The butterfly tetra-ruthenium cluster **1** has been prepared by reaction of $[\text{Ru}_3(\text{CO})_{12}]$ with *N, N'*-bis(6-methylpyrid-2-yl)urea. Doubly-deprotonated *N, N'*-dipyrid-2-ylureas seem to be appropriate ligands to hold butterfly tetra-nuclear clusters.

