

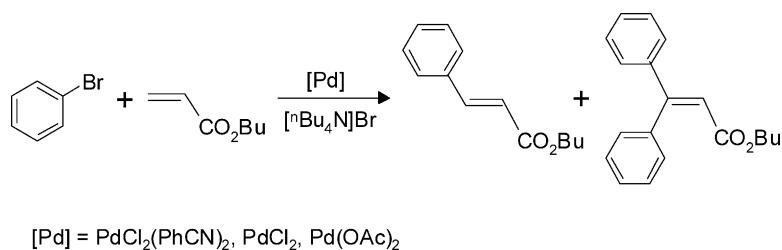
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Iweta Pryjomska-Ray, Anna M. Trzeciak,  
Józef J. Ziółkowski

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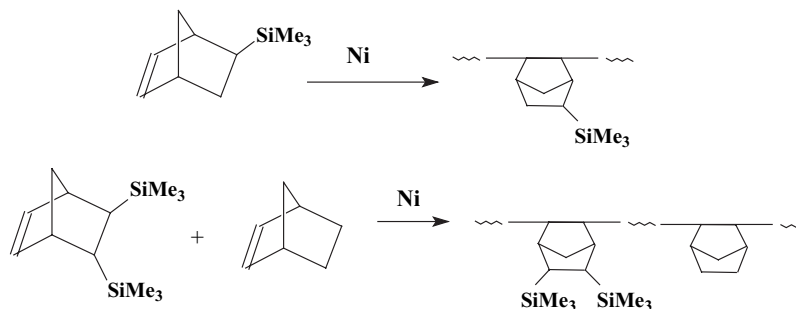
Base-free efficient palladium catalyst of Heck reaction in molten tetrabutylammonium bromide



E.Sh. Finkelshtein, K.L. Makovetskii,  
M.L. Gringolts, Y.V. Rogan, T.G. Golenko,  
V.G. Lakhtin, M.P. Filatova

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Addition polymerization of silyl-containing norbornenes in the presence of Ni-based catalysts

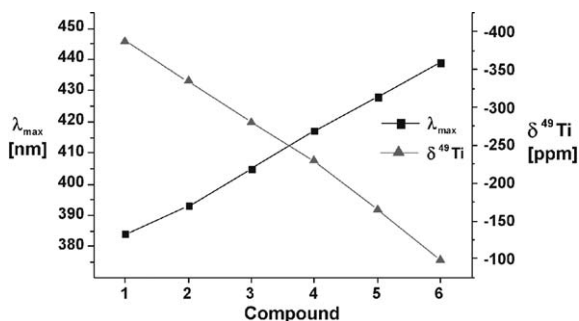


Jiří Pinkas, Antonín Lyčka, Pavel Šindelář,  
Róbert Gyepes, Vojtech Varga, Jiří Kubišta,  
Michal Horáček, Karel Mach

*Journal of Molecular Catalysis A: Chemical* 257  
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Effects of substituents in cyclopentadienyltitanium trichlorides on electronic absorption and <sup>47,49</sup>Ti NMR spectra and styrene polymerization activated by methylalumoxane

In the (η<sup>5</sup>-C<sub>5</sub>H<sub>5-n</sub>Me<sub>n</sub>)TiCl<sub>3</sub> (n = 0–5; **1–6**) series λ<sub>max</sub> of the electronic absorption band and δ<sup>49,47</sup>Ti chemical shift depend linearly on the number of Me groups n. In contrast, the activity of the catalysts (**1–6**)/MAO in the polymerization of styrene to syndiotactic polymer correlates only poorly with n.

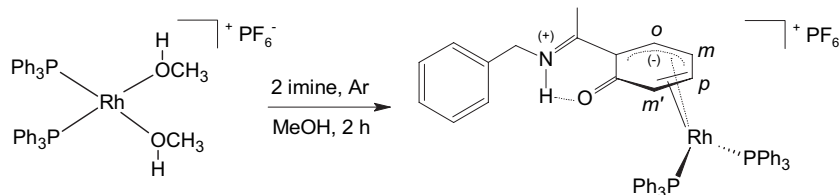


**Paolo Marcazzan, Brian O. Patrick,  
Brian R. James**

*Journal of Molecular Catalysis A: Chemical* 257  
(2006) 26

Catalyst poisoning in catalyzed imine hydrogenation:  
A novel zwitterionic Rh(I)/*o*-hydroxy-substituted imine complex

The ketimine (*o*-HOC<sub>6</sub>H<sub>4</sub>)C(Me) = NCH<sub>2</sub>Ph reacts with [Rh(COD)(PPh<sub>3</sub>)<sub>2</sub>]PF<sub>6</sub> in MeOH at ambient conditions to precipitate the complex [Rh{η<sup>4</sup>-(C<sub>6</sub>H<sub>4</sub>O)<sup>(-)</sup>C(Me) = N<sup>(+)</sup>(H)CH<sub>2</sub>Ph}(PPh<sub>3</sub>)<sub>2</sub>]PF<sub>6</sub>, a unique type of zwitterionic complex in which the imine is coordinated via the C<sub>4</sub> part of the *o*-hydroxy-arene moiety in a quinoid form; this tautomer is generated via proton transfer from the O-atom to the N-atom within the molecular, benzenoid form. The precipitation of the Rh precludes possible catalyzed hydrogenation of the imine.

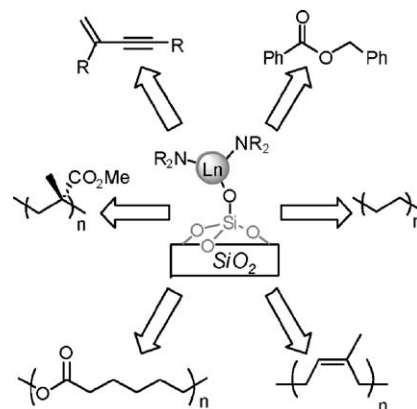


**Régis M. Gauvin, Thomas Chenal,  
Rahma Ali Hassan, Ahmed Addad,  
André Mortreux**

*Journal of Molecular Catalysis A: Chemical* 257  
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Grafted lanthanide amides: Versatile catalysts for  
various transformations

Lanthanide (Y, La, Nd, Sm) silylamides grafted onto silica dehydroxylated at 250, 500 and 700 °C have been applied in methyl methacrylate, ethylene, ε-caprolactone and isoprene polymerisation, showing marked dependence of catalytic performances on the nature of the surface species. These materials are active for Tischenko reaction and 1-heptyne dimerisation, and proved to be recyclable catalytic systems.

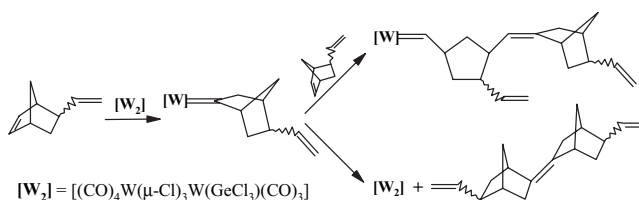


**Marcin Górski, Teresa Szymańska-Buzar**

*Journal of Molecular Catalysis A: Chemical* 257  
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Tungsten(II)-initiated ring-opening metathesis polymerization and other C–C bond forming reactions of 5-vinyl-2-norbornene

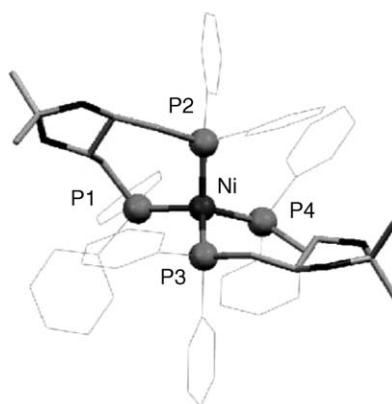
The trichloro-bridged tungsten(II) dimer [(CO)<sub>4</sub>W(μ-Cl)<sub>3</sub>W(GeCl<sub>3</sub>)(CO)<sub>3</sub>] has been demonstrated to be a very effective catalyst for the ring-opening metathesis polymerization of 5-vinyl-2-norbornene. The ROMP reaction is accompanied by the formation of 2,2'-bi(vinylnorbornylidene). A mechanism involving C–H bond activation of olefin and the formation of tungsta-vinylnorbornylidene is proposed to explain those results.



**Torsten Irrgang, Thomas Schareina,  
Rhett Kempe**

*Journal of Molecular Catalysis A: Chemical* 257  
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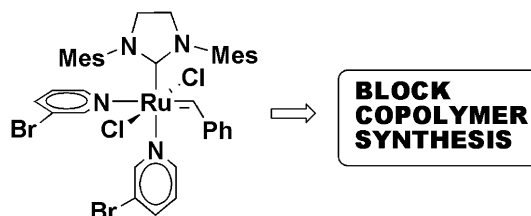
The development of an enantioselective nickel  
hydrosilylation catalyst system via multi-substrate  
screening



**Silvia Riegler, Sandra Demel, Gregor Trimmel,  
Christian Slugovc, Franz Stelzer**

*Journal of Molecular Catalysis A: Chemical* 257  
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Ring opening metathesis polymerisation initiated by  $\text{RuCl}_2(\text{3-bromopyridine})_2(\text{H}_2\text{IMes})(\text{CHPh})$ . Scope and limitation in block copolymer synthesis

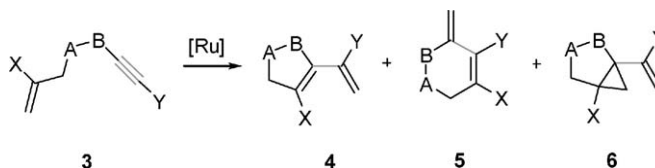


**Volodymyr Sashuk, Karol Grela**

*Journal of Molecular Catalysis A: Chemical* 257  
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Synthetic and mechanistic studies on enyne metathesis: A catalyst influence

The structure–selectivity relationship of the intramolecular enyne metathesis of **3** catalyzed by various ruthenium carbenes was investigated. This study witnesses the very subtle and cooperative influence of different parameters on the stereochemical course of this reaction.

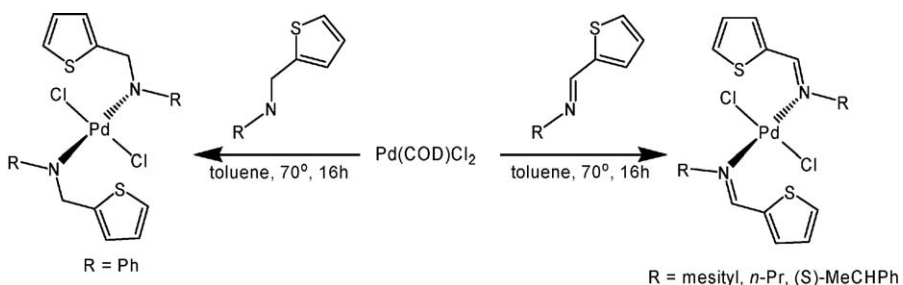


**Julia Wiedermann, Kurt Mereiter,  
Karl Kirchner**

*Journal of Molecular Catalysis A: Chemical* 257  
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Palladium imine and amine complexes derived from 2-thiophenecarboxaldehyde as catalysts for the Suzuki cross-coupling of aryl bromides

A range of square-planar *trans*-dichloro palladium(II) complexes containing *N*-(2-thiophenecarboxaldehyde)-aniline and *N*-(2-thienylmethyl)-aniline derived ligands has been synthesized and characterized. The use of these complexes as catalysts for the Suzuki coupling of various aryl bromides and phenyl boronic acid has been examined.

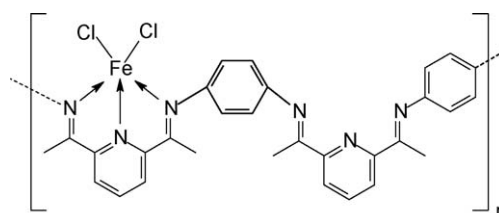


**Marcus Seitz, Helmut G. Alt**

*Journal of Molecular Catalysis A: Chemical* 257  
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Transition metal complexes of polymeric Schiff bases as catalyst precursors for the polymerization of ethylene

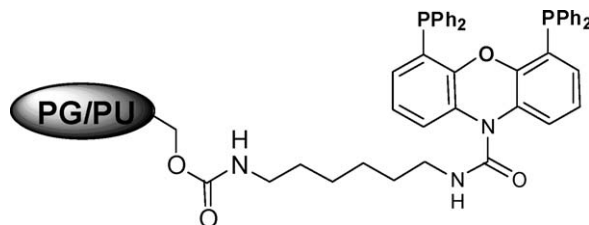
Polymeric Schiff bases can be used as ligands for the preparation of heterogeneous olefin polymerization catalysts. The structure of the ligand backbone determines the properties of the iron containing catalysts. Force field calculations help to explain the results.



**Stefan Ricken, Piotr W. Osinski,  
Peter Eilbracht, Rainer Haag**

*Journal of Molecular Catalysis A: Chemical* 257  
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A new approach to dendritic supported NIXANT-  
PHOS-based hydroformylation catalysts

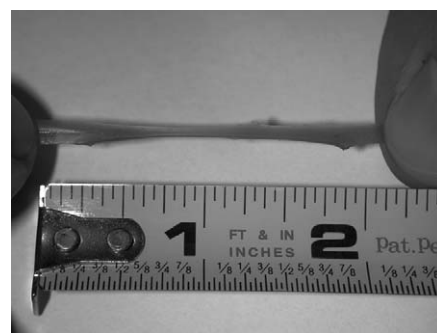


**Piotr P. Matloka, Kenneth B. Wagener**

*Journal of Molecular Catalysis A: Chemical* 257  
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The acyclic diene metathesis (ADMET) polymer-  
ization approach to silicon containing materials

The utility and feasibility of acyclic diene metathe-  
sis polycondensation in the synthesis of silicon/  
carbon hybrid materials is presented. Silylative  
coupling polycondensation is also presented as  
complementary method in the preparation of such  
hybrids. Both methods lead to formation of unsaturated  
polymeric systems that might be valuable materials  
in the vast number of applications.

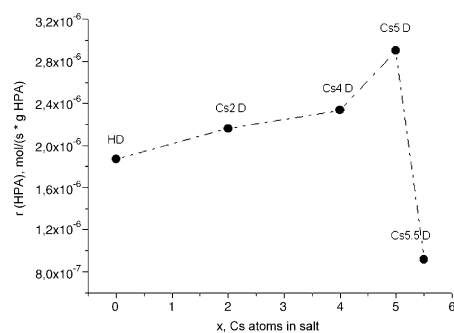


**Joanna Poźniczek, Anna Lubańska,  
Dariusz Mucha, Adam Bielański**

*Journal of Molecular Catalysis A: Chemical* 257  
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Cesium partly substituted salts  $Cs_xH_{6-x}P_2W_{18}O_{62}$  of  
Wells–Dawson heteropolyacid as catalysts for  
ethyl-*tert*-butyl ether synthesis

The physico-chemical properties of a series of part-  
ly substituted cesium salts  $Cs_xH_{6-x}P_2W_{18}O_{62}$  of  
Wells–Dawson heteropolyacid have been investigat-  
ed. Cesium salts were tested as catalysts in gas  
phase synthesis of ethyl-*tert*-butyl ether (ETBE).

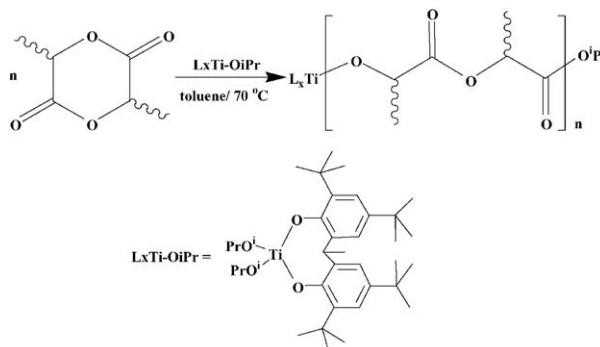


**Jolanta Ejfler, Michał Kobylka,  
Lucjan B. Jerzykiewicz, Piotr Sobota**

*Journal of Molecular Catalysis A: Chemical* 257  
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Titanium complexes supported by bis(aryloxo)  
ligand: Structure and lactide polymerization activities

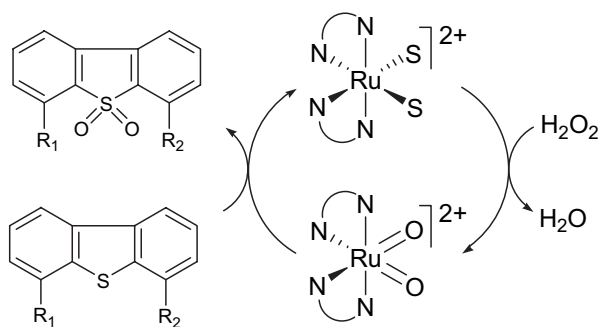
Catalytic properties of titanium bis(aryloxo) complexes with 2,2'-ethylidenebis(4,6-di-*tert*-butylphenol) (edbp-H<sub>2</sub>) towards polymerization of cyclic esters are reported.



**Vanessa R. Landaeta, Luca Gonsalvi,  
Maurizio Peruzzini**

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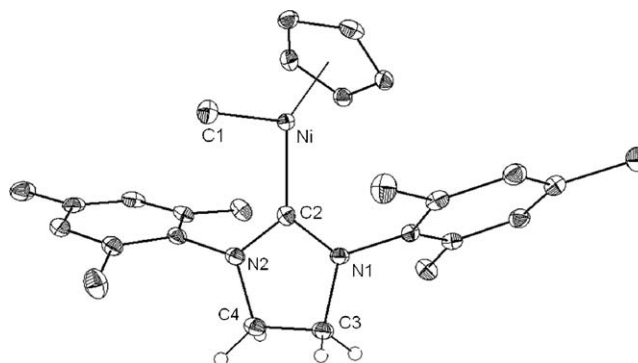
Ruthenium catalyzed selective oxidation of aryl  
thiophenes using hydrogen peroxide



**Włodzimierz Buchowicz, Andrzej Koziół,  
Lucjan B. Jerzykiewicz, Tadeusz Lis,  
Stanisław Pasynkiewicz, Aleksandra  
Pęcherzewska, Antoni Pietrzykowski**

*Journal of Molecular Catalysis A: Chemical* 257  
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*N*-Heterocyclic carbene complexes of cyclopentadi-  
enylnickel(II): Synthesis, structure and catalytic  
activity in styrene polymerization

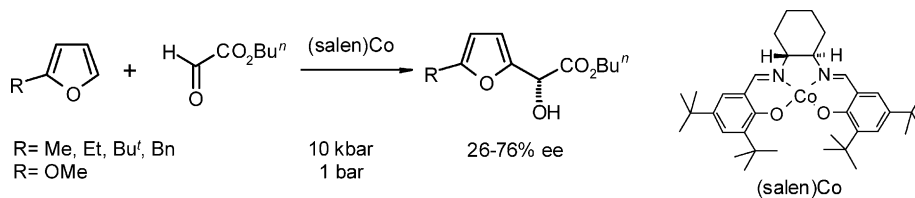


**Piotr Kwiatkowski, Elżbieta Wojaczyńska,  
Janusz Jurczak**

*Journal of Molecular Catalysis A: Chemical* 257  
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Asymmetric Friedel–Crafts reaction of furans with  
alkyl glyoxylates catalyzed by (salen)Co(II) com-  
plexes

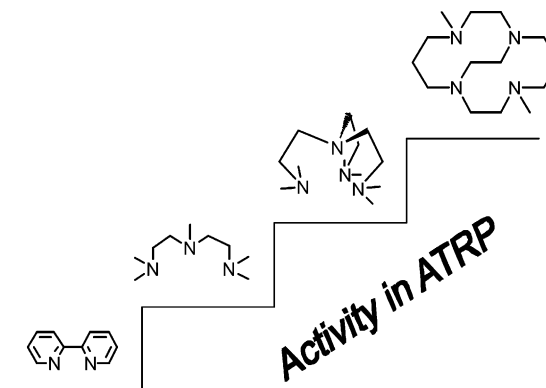
An asymmetric high-pressure (ca. 10 kbar) reaction of various 2-alkylfurans and atmospheric-pressure reaction of 2-methoxyfuran with alkyl glyoxylates, catalyzed by the chiral (salen)Co complexes, has been studied. The reaction afforded chiral furfuryl alcohols, compounds of significant synthetic interest, with moderate to good enantioselectivity (up to 76% ee).



**Nicolay V. Tsarevsky, Wade A. Braunecker,  
Wei Tang, Samuel J. Brooks,  
Krzysztof Matyjaszewski, Gary R. Weisman,  
Edward H. Wong**

*Journal of Molecular Catalysis A: Chemical* 257  
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Copper-based ATRP catalysts of very high activity  
derived from dimethyl cross-bridged cyclam

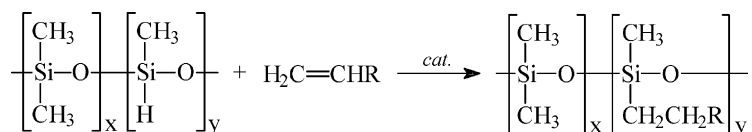


**Hieronim Maciejewski, Agata Wawrzyńczak,  
Michał Dutkiewicz, Ryszard Fiedorow**

*Journal of Molecular Catalysis A: Chemical* 257  
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Silicone waxes—synthesis via hydrosilylation in  
homo- and heterogeneous systems

Silicone waxes were synthesized using hydrosilylation of alkenes with poly(hydromethyl, dimethyl)siloxane in the presence of transition metal complexes in homogeneous system and immobilised in ionic liquids as well as on supported metal catalysts.

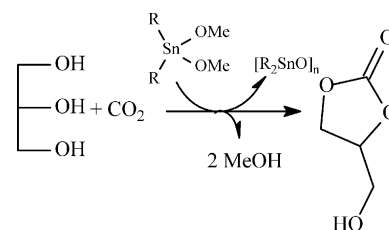


**Michele Aresta, Angela Dibenedetto,  
Francesco Nocito, Carlo Pastore**

*Journal of Molecular Catalysis A: Chemical* 257  
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A study on the carboxylation of glycerol to glycerol  
carbonate with carbon dioxide: The role of the cata-  
lyst, solvent and reaction conditions

The paper reports the first evidence of the direct carboxylation of glycerol with carbon dioxide under Sn-complexes catalysis. The reaction mechanism has been studied and the active species has been identified. The catalyst converts into a polymeric material with reduction of the catalytic activity.

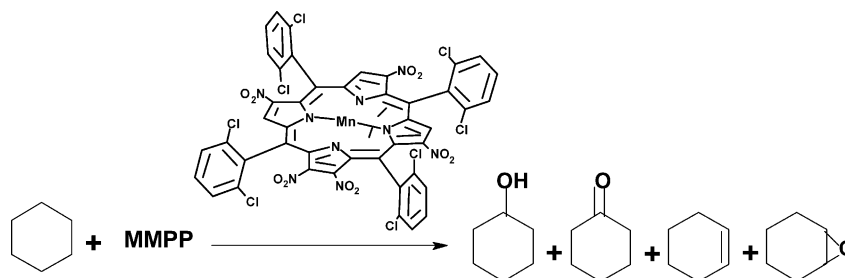


**J. Połtowicz, K. Pamin, J. Haber**

*Journal of Molecular Catalysis A: Chemical* 257  
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Influence of manganese tetraarylporphyrins sub-  
stituents on the selectivity of cycloalkanes oxidation  
with magnesium monoperoxyphthalate

The hydroxylation of cycloalkanes: cyclohexane and cyclooctane was studied with second and third generations of manganese porphyrins and magnesium monoperoxyphthalate (MMPP) as oxygen donor, under mild condition. We have found that the product yields and the selectivity are modified by substituents in the porphyrin ring.

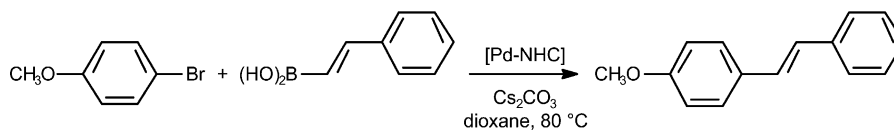


**Adriana Tudose, Anna Maj, Xavier Sauvage,  
Lionel Delaude, Albert Demonceau, Alfred F.  
Noels**

*Journal of Molecular Catalysis A: Chemical* 257  
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Synthesis of stilbenoids via the Suzuki–Miyaura  
reaction catalysed by palladium *N*-heterocyclic car-  
bene complexes

The Suzuki–Miyaura reaction of aryl halides with *trans*-2-phenylvinylboronic acid using a series of related *in situ* generated *N*-heterocyclic carbene palladium(II) complexes was studied in order to evaluate the effect of ligand structure and electronics on the catalytic activity. The nature of the substituents of the carbene ligand was found to be critical. Specifically, the presence of alkyl groups on the *ortho* positions of the phenyl substituents was a requisite for obtaining the most efficient catalyst systems.



**Nilesh C. Mehendale, Chris Bezemer, Cornelis A. van Walree, Robertus J.M. Klein Gebbink, Gerard van Koten**

*Journal of Molecular Catalysis A: Chemical* 257 (2006) 167

Novel silica immobilized NCN-pincer palladium(II) and platinum(II) complexes: Application as Lewis acid catalysts

New organometallic siloxanes derived from NCN-pincer palladium(II) and platinum(II) complexes have been developed. These complexes were immobilized by grafting on silica particles as well as by incorporating them by a sol-gel method. The palladium-silica hybrid materials were used as Lewis acidic catalysts in the aldol reaction between methyl isocyanoacetate and benzaldehyde. Various recycling experiments were performed.

