

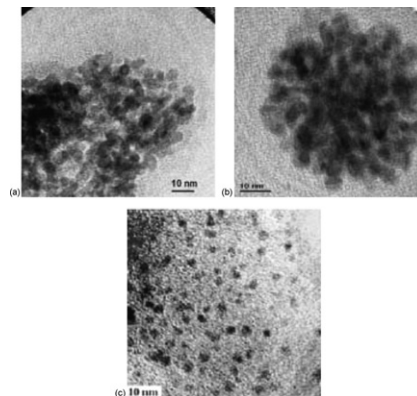
## Contents

### Articles

**L. De Zan, D. Gasparovicova, M. Kralik,  
P. Centomo, M. Carraro, S. Campestrini,  
K. Jerabek, B. Corain**

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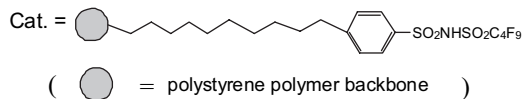
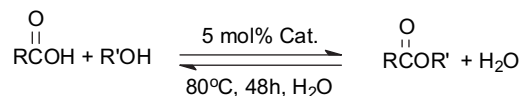
Nanoclustered palladium(0) supported on a gel-type poly-acrylonitrile–*N,N*-dimethylacrylamide–ethylene-dimethacrylate resin: Nanostructural aspects and catalytic behaviour



**Zhengbo Zhang, Sanyi Zhou, Jin Nie**

*Journal of Molecular Catalysis A: Chemical* 265  
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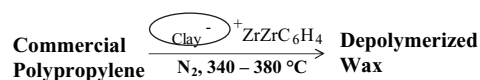
Polymer-supported sulfonimide as a novel water-tolerant Brønsted acid catalyst for esterification of equimolar carboxylic acids and alcohols



**Sunder Lal, K.S. Anisia, M. Jhansi, L. Kishore,  
Anil Kumar**

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Development of heterogeneous catalyst by ionically bonding macrocyclic Zr–Zr complex to montmorillonite clay for depolymerization of polypropylene

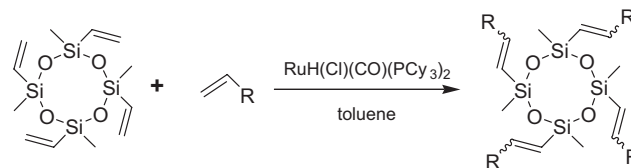


**Bogdan Marciniec, Jacek Waehner,  
Piotr Pawluc, Maciej Kubicki**

*Journal of Molecular Catalysis A: Chemical* 265  
(2007) 25

Highly stereoselective synthesis and application of functionalized tetravinylcyclotetrasiloxanes via catalytic reactions

An effective silylative coupling functionalization of tetravinylcyclotetrasiloxane  $DV_4^V$  with olefins (*p*-substituted styrenes, 1-hexene, butyl vinyl ether, *tert*-butyl vinyl ether, 1-vinyl-2-pyrrolidinone, 9-vinylcarbazole and vinyltrimethylsilane) catalyzed by ruthenium-hydride complex  $[RuHCl(CO)(PCy_3)_2]$  has been described. The resulting 1,3,5,7-tetramethyl-1,3,5,7-tetra-(*E*)-4-bromostyrylcyclotetrasiloxane has been efficiently coupled with aryl iodides in the presence of palladium(0) catalyst to yield substituted 4-bromostilbenes.



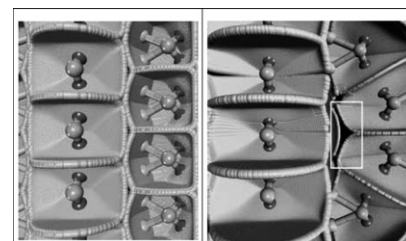
R = *p*-C<sub>6</sub>H<sub>4</sub>Me, *p*-C<sub>6</sub>H<sub>4</sub>OMe, *p*-C<sub>6</sub>H<sub>4</sub>Br, <sup>n</sup>Bu, SiMe<sub>3</sub>, O<sup>n</sup>Bu, O<sup>t</sup>Bu, N-pyrrolidinone, 9-carbazole

**Yosslen Aray, Jesus Rodríguez**

*Journal of Molecular Catalysis A: Chemical* 265  
(2007) 32

Atoms in molecules theory for exploring the nature of the MoS<sub>2</sub> catalyst edges sites

The nature of the MoS<sub>2</sub> catalyst edge was studied using the atoms in molecules theory. It has found that the active sites on the catalyst surface can be localized visualizing the outermost interatomic surfaces. In this sense, the picture shows interatomic surfaces (white surfaces) defining the basin of the outermost sulfur atoms (denoted as yellow spheres) for the MoS<sub>2</sub> edge model (left) and for the active site (right). A hole between these basins (highlighted by a white rectangle) shows the site that allows access to the Mo atoms (the Lewis sites). Gray and white spheres denote Mo–S and S–S bond critical points, respectively.

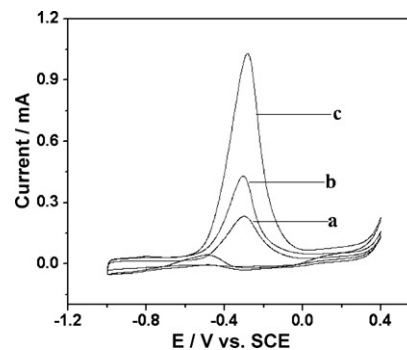


**Dongsheng Geng, Liang Chen, Gongxuan Lu**

*Journal of Molecular Catalysis A: Chemical* 265  
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pH induced size-selected synthesis of PtRu nanoparticles, their characterization and electrocatalytic properties

Size-selected PtRu/C nanocatalysts were synthesized in alkaline glucose solution by simply adjusting the pH. The PtRu particles become smaller and more uniform with the increase of alkaline glucose solution pH. PtRu/C exhibited better performances for methanol electro-oxidation than other samples when the synthesis solution pH was 12.5.

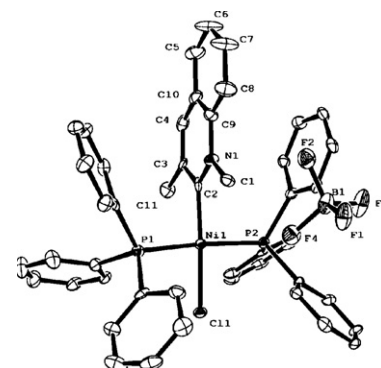


**Sabine K. Schneider, Christoph F. Rentzsch,  
Anneke Krüger, Helgard G. Raubenheimer,  
Wolfgang A. Herrmann**

*Journal of Molecular Catalysis A: Chemical* 265  
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Pyridin- and quinolinylidene nickel carbene complexes as effective catalysts for the Grignard cross-coupling reaction

A series of nickel(II) compounds that contain *N*-heterocyclic carbene (NHC) and *N*-heterocyclic carbene ligands with a remote heteroatom ( $\pm$ NHC) have been prepared in good yields and characterized. They provide active pre-catalysts for the Kumada–Corriu reaction; arylchlorides can be used as substrates.

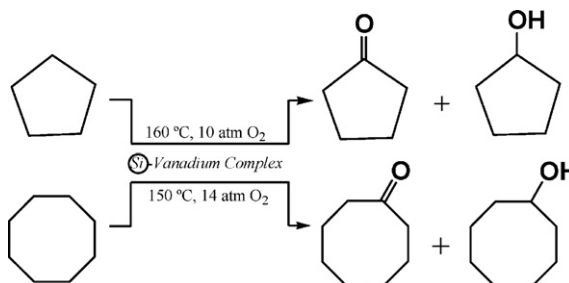


**Gopal S. Mishra, João J.R. Fraústo da Silva, Armando J.L. Pombeiro**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 59

Supported bis(maltolato)oxovanadium complexes as catalysts for cyclopentane and cyclooctane oxidations with dioxygen

Bis(maltolato)oxovanadium(IV or V) complexes anchored on carbamate modified silica catalyse, under mild or moderate conditions, the direct and solvent free oxidation (with O<sub>2</sub>) of cycloalkanes (cyclopentane and cyclooctane) to the corresponding cycloketones as the main products, while the cycloalcohols are obtained in lower amounts.

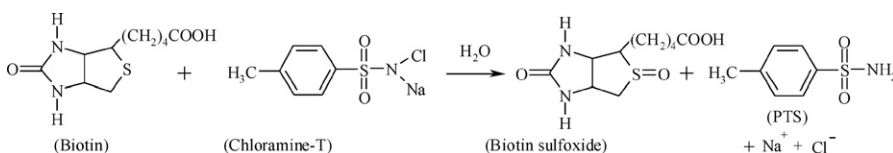


**Ramalingaiah, R.V. Jagadeesh, Puttaswamy**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 70

Os(VIII)-catalyzed and uncatalyzed oxidation of biotin by chloramine-T in alkaline medium: Comparative mechanistic aspects and kinetic modeling

In Os(VIII) catalyzed oxidation of biotin to biotin sulfoxide by CAT in alkaline medium, the rate law is  $-d[\text{CAT}]/dt = k[\text{CAT}][\text{Os(VIII)}]/[\text{NaOH}]$  but it takes the form  $-d[\text{CAT}]/dt = k[\text{CAT}][\text{Biotin}]^x/[\text{NaOH}]^y$  for uncatalyzed reaction, where  $x$  and  $y$  are less than unity. The reaction rate of Os(VIII) catalyzed reaction was found to increase about eight times than the uncatalyzed reaction.

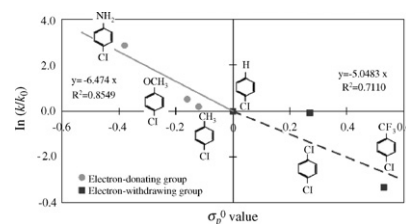


**Tetsuya Yoneda, Toshio Takido, Kenji Konuma**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 80

Hydrodechlorination reactivity of *para*-substituted chlorobenzenes over platinum/carbon catalyst

The hydrodechlorination of chlorobenzene and *para*-amino, -methoxy, -methyl, -chloro, -trifluoromethyl, -acetyl, and -cyano-substituted chlorobenzenes were carried out over 5%-Pt/C under 1 MPa of H<sub>2</sub> at 523 K. The hydrodechlorination reactivity decreased in the order of *para*-amino-chlorobenzene  $\gg$  *para*-methoxy  $\approx$  *para*-methyl  $\approx$  chlorobenzene  $\approx$  *para*-chloro  $\gg$  *para*-trifluoromethyl, except for *para*-cyano and *para*-acetyl. The order of hydrodechlorination reactivity was in good agreement with that of adsorption energy.



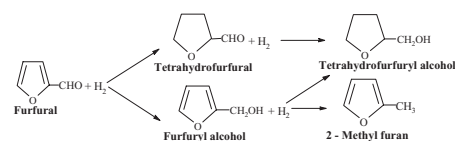
**B.M. Nagaraja, A.H. Padmasri, B. David Raju, K.S. Rama Rao**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 90

Vapor phase selective hydrogenation of furfural to furfuryl alcohol over Cu-MgO coprecipitated catalysts

Cu-MgO catalysts with variable Cu loadings (5.2–79.8 wt.%) are prepared by coprecipitation method. Hydrogenation activities of the catalysts, reduced at 523 K in H<sub>2</sub> flow for 4 h prior to the reaction are studied in the temperature range of 453–523 K. Cu-MgO catalyst with 16 wt.% of Cu showed hydrogenation activity with 98% conversion of furfural producing furfuryl alcohol with a higher selectivity of 98%. The BET surface area started increase with increase in Cu loading and reaches a maximum of 46 m<sup>2</sup> g<sup>-1</sup> at a Cu loading of 16 wt.% and thereafter reduced with further increase in the Cu content probably due to the formation of larger crystallites of CuO. XPS analysis showed the presence of Cu<sup>0</sup>/Cu<sup>+</sup> sites on the catalyst surface (16 wt.% Cu)

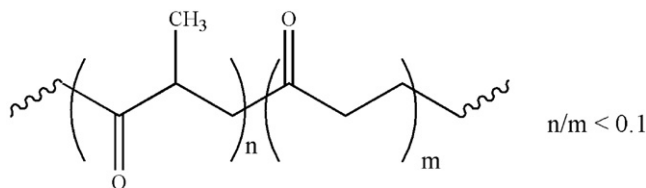
that may be responsible for the higher activity compared to other Cu-MgO catalysts studied. The turnover frequency of furfural conversion in the catalysts containing lower composition of Cu is very high. However, due to the lack of required number of Cu<sup>0</sup> particles and the absence of Cu<sup>+</sup> species in these catalysts, the overall conversion of furfural is low.



**Antonella Leone, Sebastian Gischig,  
Giambattista Consiglio**

*Journal of Molecular Catalysis A: Chemical* 265  
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Pd complexes containing non-symmetrical diphosphines in the terpolymerization of ethene, propene and carbon monoxide

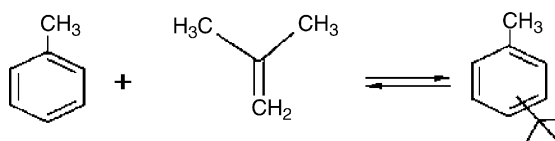


**Shivanand Pai, Upendranath Gupta,  
Satyanarayana Chilukuri**

*Journal of Molecular Catalysis A: Chemical* 265  
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Butylation of toluene: Influence of zeolite structure and acidity on 4-*tert*-butyltoluene selectivity

Vapour phase alkylation of toluene with *tert*-butylalcohol was studied over large pore zeolite catalysts H $\beta$ , HY and HMCM-22. Zeolite HY with high silica to alumina ratio, that has strong acidity, but lower acid site density, offers good conversion, high alkylation selectivity and also much better *para*-selectivity. The improved *para*-selectivity of high silica HY zeolite catalyst is attributed to the low isomerization activity, that results in the suppression of the secondary isomerization of 4-TBT.

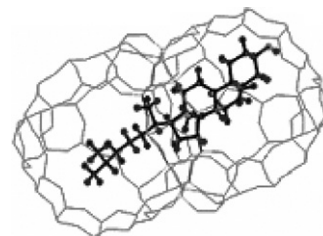


**Frederic Houot, Laurent Grasset,  
Patrick Magnoux, André Amblès**

*Journal of Molecular Catalysis A: Chemical* 265  
(2007) 117

Catalytic transformation of cholesterol over HFAU zeolites

The catalytic behavior of an HFAU zeolite was studied in the transformation of cholesterol. At 25 °C, 95% of cholesterol was converted after 5 h. The first occurring reaction is dehydration leading cholesta-dienes as primary products. The secondary compounds arising from the transformations of cholesta-dienes identified in the reactional middle are cholestenes, diacholestadienes, spirocholestadienes and aromatics.

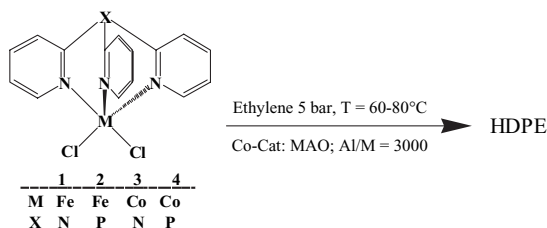


**Arquímedes Karam, Rita Tenia,  
María Martínez, Francisco López-Linares,  
Carmen Albano, Antonio Díaz-Barrios,  
Yanixia Sánchez, Edgar Catari, Emilio Casas,  
Sara Pekerar, Alberto Albornoz**

*Journal of Molecular Catalysis A: Chemical* 265  
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Iron(II) and cobalt(II) tris(2-pyridyl)phosphine and tris(2-pyridyl)amine catalysts for the ethylene polymerization

Iron(II) and cobalt(II) catalysts based on tris(2-pyridyl)amine and tris(2-pyridyl)phosphine ligands have been prepared. These catalysts showed moderate to high catalytic activity toward ethylene polymerization. The iron complexes showed higher activities than the cobalt analogues. The polyethylenes were classified as HDPE with linear structure and broad monomodal distribution.

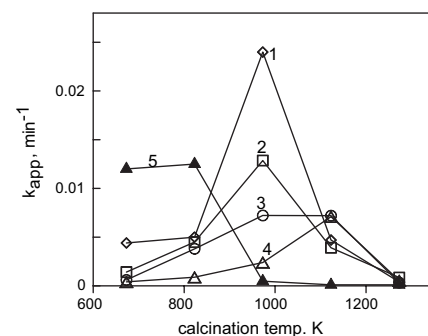


**Lung-Chuan Chen, Chao-Ming Huang, Fu-Ren Tsai**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 133

Characterization and photocatalytic activity of K<sup>+</sup>-doped TiO<sub>2</sub> photocatalysts

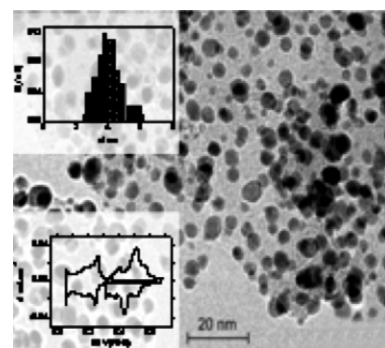
Doping K<sup>+</sup> decreases the crystal size of TiO<sub>2</sub> and increases the calcination temperature required to attain the optimum photocatalytic activity of the sample. TiO<sub>2</sub> doped with 4.6% K<sup>+</sup> and calcined at 973 K shows much higher photoactivity than the other samples when the doping level of K<sup>+</sup> and calcination temperature are 0–14.3% and 673–1273 K, respectively.


**S.N. Pronkin, P.A. Simonov, V.I. Zaikovskii, E.R. Savinova**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 141

Model Pd-based bimetallic supported catalysts for nitrate electroreduction

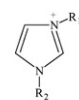
An approach for *in situ* preparation of bimetallic Pd–Cu catalysts active in nitrate electroreduction is described. The catalysts are prepared by modification of the surface of Pd nanoparticles by monolayer of Cu. The structure of Pd/Cu nanoparticles is characterized by HR-TEM and by their electrochemical properties. Modification of Pd surface by Cu adlayer results in significant increase of the activity in nitrate electroreduction. Dependencies of the reaction rate on the potential and concentrations are discussed.


**E. Kaczmarczyk, E. Janus, E. Milchert**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 148

Selective epoxidation of 1,4-bis(allyloxy)butane to 1-allyloxy-glycidolxybutane in the presence of ionic liquids

The course of epoxidation of 1,4-bis(allyloxy)butane with hydrogen peroxide in the presence of H<sub>3</sub>PO<sub>4</sub>/Na<sub>2</sub>WO<sub>4</sub>·2H<sub>2</sub>O or heteropolyacids: H<sub>3</sub>PW<sub>12</sub>O<sub>40</sub> and H<sub>3</sub>PMo<sub>12</sub>O<sub>40</sub> as the catalysts and the ionic liquids as the phase transfer catalysts (cocatalysts) has been investigated. As the PT catalysts were used imidazolium lactates and salicylates with *N*-alkyl or alkoxy substitute.



R<sub>1</sub>=H; R<sub>2</sub>=C<sub>4</sub>H<sub>9</sub>-, C<sub>7</sub>H<sub>17</sub>-, C<sub>10</sub>H<sub>21</sub>-;

X<sup>-</sup>=lactate

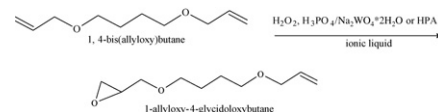
R<sub>1</sub>=H; R<sub>2</sub>=C<sub>4</sub>H<sub>9</sub>OCH<sub>2</sub>-, C<sub>4</sub>H<sub>9</sub>OCH<sub>2</sub>-;

X<sup>-</sup>=lactate

R<sub>1</sub>=H; R<sub>2</sub>=C<sub>4</sub>H<sub>9</sub>OCH<sub>2</sub>-, C<sub>6</sub>H<sub>13</sub>OCH<sub>2</sub>-, C<sub>8</sub>H<sub>17</sub>OCH<sub>2</sub>-;

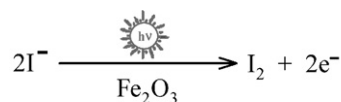
X<sup>-</sup>=salicylate

The influence of the kind and amount of catalyst on the yield of 1-allyloxy-4-glycidolxybutane has been determined.


**C. Karunakaran, P. Anilkumar**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 153

Semiconductor-catalyzed solar photooxidation of iodide ion



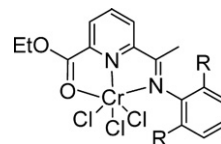
Efficiency: Fe<sub>2</sub>O<sub>3</sub> > MoO<sub>3</sub> > TiO<sub>2</sub> > CeO<sub>2</sub> > ZnO > ZrO<sub>2</sub> > Al<sub>2</sub>O<sub>3</sub>

**Wenjuan Zhang, Wen-Hua Sun, Xiubo Tang, Tielong Gao, Shu Zhang, Peng Hao, Jitong Chen**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 159

Chromium complexes ligated by 2-carbethoxy-6-iminopyridines: Synthesis, characterization and their catalytic behavior toward ethylene polymerization

A series of the title chromium complexes ligated by 2-carbethoxy-6-iminopyridines were prepared and characterized by IR spectroscopy and elemental analysis. The unambiguous solid-state structures were determined by single-crystal X-ray diffraction technique. Activated with  $\text{EtAlCl}_2$ , these complexes show notable activities for ethylene polymerization.

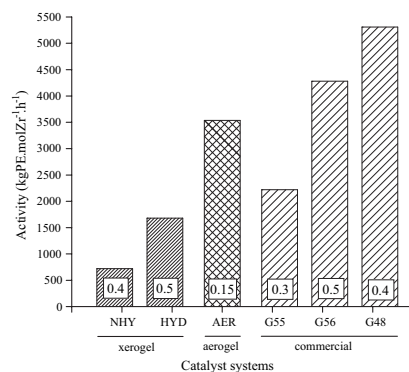


**Fernando Silveira, Gilvan P. Pires, Cristiane F. Petry, Dirce Pozebon, Fernanda C. Stedile, João H.Z. dos Santos, Arnaud Rigacci**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 167

Effect of the silica texture on grafting metallocene catalysts

A series of hybrid supported catalysts was prepared by sequentially grafting  $\text{Cp}_2\text{ZrCl}_2$  and  $(n\text{BuCp})_2\text{ZrCl}_2$  (1:3 ratio) onto synthesized xerogel, aerogel and commercial silicas. Grafted metal content, catalyst activity and polyethylene molecular weight was shown to be dependent on textural properties of the silica support.

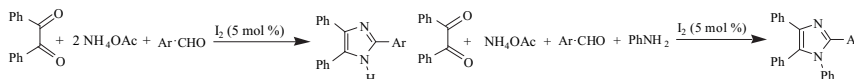


**Mazaahir Kidwai, Poonam Mothra, Vikas Bansal, Rishi K. Somvanshi, Abdul S. Ethayathulla, Sharmistha Dey, Tej P. Singh**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 177

One-pot synthesis of highly substituted imidazoles using molecular iodine: A versatile catalyst

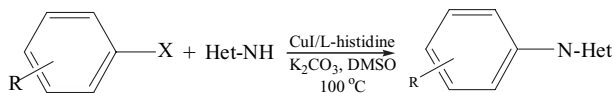
Molecular iodine has been used as an efficient catalyst for an improved and rapid one-pot synthesis of 2,4,5-trisubstituted and 1,2,4,5-tetrasubstituted imidazoles in excellent yields. The significant features of the iodine-catalyzed condensation are operational simplicity, inexpensive reagents, high yield of products and the use of non-toxic reagents.



**B. Sreedhar, K.B. Shiva Kumar, P. Srinivas, V. Balasubrahmanyam, G.T. Venkanna**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 183

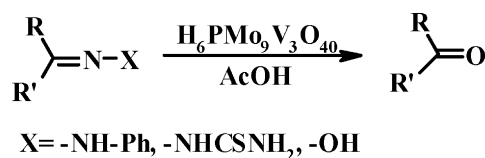
Cu/L-histidine catalyzed *N*-arylation of heterocycles



**Majid M. Heravi, Leila Ranjbar,  
Fatemeh Derikvand, Hossine A. Oskooie,  
Fatemeh F. Bamoharram**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 186

Catalytic oxidative cleavage of C=N bond in the presence of mixed-addenda vanadomolybdophosphate,  $H_6PMo_9V_3O_{40}$  as a green and reusable catalyst

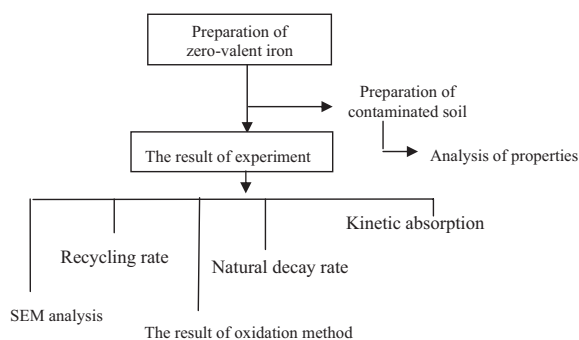


**Chiu-Jung Liao, Tay-Lung Chung,  
Wen-Liang Chen, Shu-Lung Kuo**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 189

Treatment of pentachlorophenol-contaminated soil using nano-scale zero-valent iron with hydrogen peroxide

Treatment of pentachlorophenol using zero-valent iron pictogram:

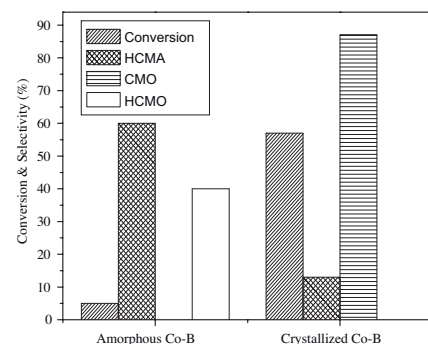


**Dong-Ge Tong, Wei Chu, Yong-Yue Luo,  
Xiao-Yang Ji, Yi He**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 195

Effect of crystallinity on the catalytic performance of amorphous Co-B particles prepared from cobalt nitrate and potassium borohydride in the cinnamaldehyde hydrogenation

The hydrogenation of the C=C bond in cinnamaldehyde (CMA) is favored for amorphous Co-B while the hydrogenation of the C=O bond is preferred for crystallized Co-B. The cycle performance of crystallized Co-B is better than that of amorphous Co-B, which is attributed to the more stable structure for crystallized Co-B.

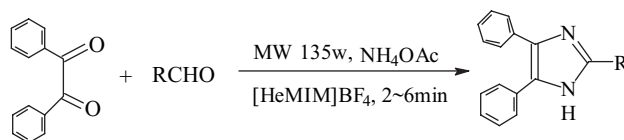


**Min Xia, Yue-dong Lu**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 205

A novel neutral ionic liquid-catalyzed solvent-free synthesis of 2,4,5-trisubstituted imidazoles under microwave irradiation

The three-component synthesis of 2,4,5-trisubstituted imidazoles, a typical acid-catalyzed reaction, could be conducted successfully with good to excellent yields in a neutral ionic liquid, 1-methyl-3-heptyl-imidazolium tetrafluoroborate ( $[HeMIM]BF_4$ ), under solvent-free and microwave-assisted conditions.

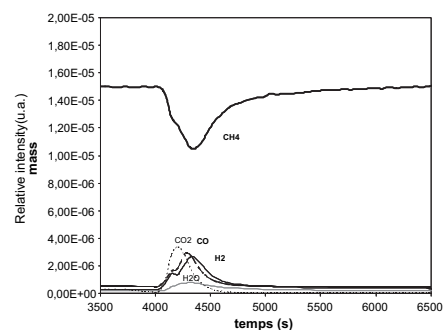


**M. Kuras, R. Roucou, C. Petit**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 209

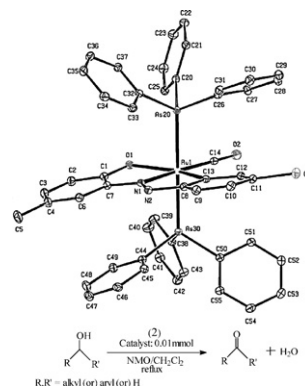
Studies of  $\text{LaNiO}_3$  used as a precursor for catalytic carbon nanotubes growth

The  $\text{LaNiO}_3$  perovskite is synthesised in three different methods of synthesis in order to compare the nature of the tubes obtained after  $\text{CH}_4$ -CVD. The internal diameter of the tubes is constant and independent of the method of preparation of the perovskite and the external diameter depends on the distribution of the metallic particles.

**K. Naresh Kumar, R. Ramesh, Yu Liu**

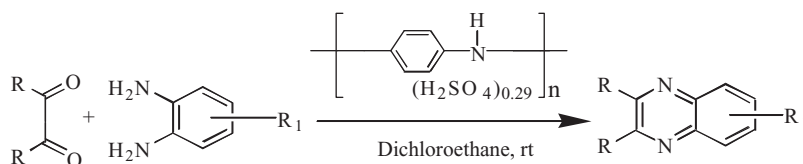
*Journal of Molecular Catalysis A: Chemical* 265 (2007) 218

Synthesis, structure and catalytic activity of cycloruthenated carbonyl complexes containing ary-lazo phenolate ligands

**Chiguru Srinivas, Chebolu Naga Sessa Sai Pavan Kumar, Vaidya Jayathirtha Rao, Srinivasan Palaniappan**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 227

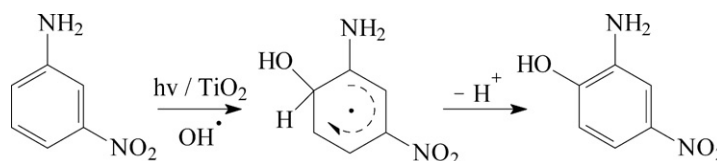
Efficient, convenient and reusable polyaniline-sulfate salt catalyst for the synthesis of quinoxaline derivatives

**M. Abu Tariq, M. Faisal, M. Muneer, D. Bahnemann**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 231

Photochemical reactions of a few selected pesticide derivatives and other priority organic pollutants in aqueous suspensions of titanium dioxide

Photocatalysed reaction of few selected organic compounds such as 4-bromoaniline, 3-nitroaniline, pentachlorophenol, 1,2,3-trichlorobenzene, and diphenylamine has been investigated either in water or in acetonitrile/water mixture in the presence of titanium dioxide and molecular oxygen. GC-MS analysis of the irradiated mixture showed the formation of oxidative products. A probable pathway for the formation of products has been proposed involving  $\text{OH}^\bullet$  and  $\text{O}_2^\bullet$



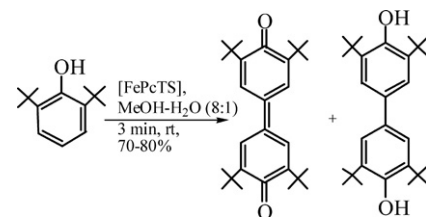


**Yasemin Çimen, Hayrettin Türk**

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Oxidation of 2,6-di-*tert*-butylphenol with *tert*-butyl hydroperoxide catalyzed by iron phthalocyanine tetrasulfonate in a methanol–water mixture

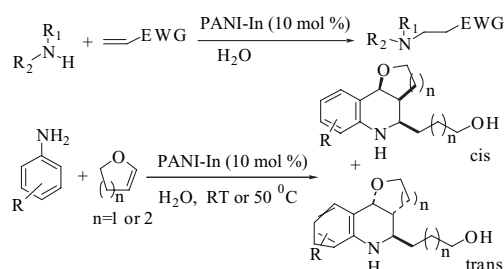
The oxidation of 2,6-di-*tert*-butylphenol (DTBP) with *tert*-butyl hydroperoxide (Bu'OOH) catalyzed by iron phthalocyanine tetrasulfonate ([FePcTS]) in a 8-to-1 methanol–water mixture resulted with about 70–80% conversion of DTBP in 3 min at ambient temperature. The mole ratios of [FePcTS]:DTBP:Bu'OOH in a typical reaction were 1:400:500, respectively.



**M. Lakshmi Kantam, Moumita Roy,  
Sarabindu Roy, M.S. Subhas, Bojja Sreedhar,  
B.M. Choudary, Rajib Lal De**

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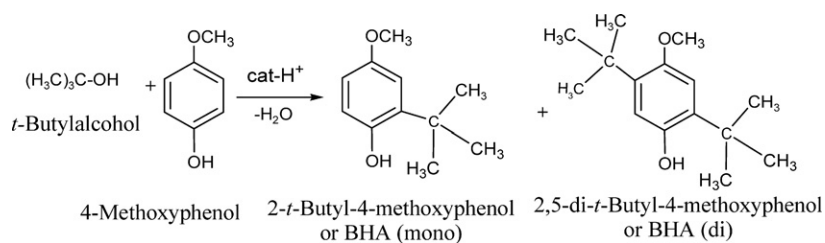
Polyaniline supported indium chloride: A reusable catalyst for organic transformations in water

**M. Selvaraj, S. Kawi**

*Journal of Molecular Catalysis A: Chemical* 265 (2007) 250

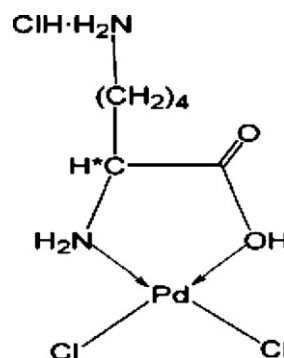
Selective synthesis of 2-*t*-butylated hydroxyl anisole by *t*-butylation of 4-methoxyphenol with *t*-butyl alcohol over mesoporous solid acid catalysts

*t*-Butylation of 4-methoxyphenol (4-MP) with *t*-butyl alcohol (*t*-BuOH) as alkylating agent have been investigated under liquid phase reaction conditions over Zn–Al–MCM-41 with different  $n_{Si}/(n_{Zn} + n_{Al})$  ratios for selective synthesis of 2-*t*-butylated hydroxyl anisoles (2-TBHA).

**Yu-Zhi Hao, Zuo-Xi Li, Jin-Lei Tian**

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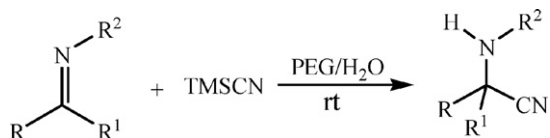
Synthesis, characteristics and catalytic activity of water-soluble [Pd(lysine-HCl)(Cl)<sub>2</sub>] complex as hydrogenation catalyst



**M. Anil Kumar, M.F. Stephen Babu,  
K. Srinivasulu, Y.B. Kiran, C. Suresh Reddy**

*Journal of Molecular Catalysis A: Chemical* 265  
(2007) 268

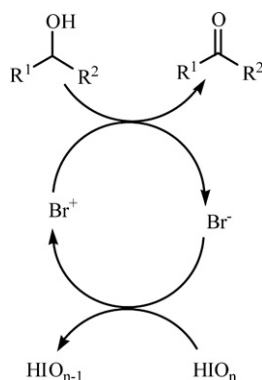
Polyethylene glycol in water: A simple and environment friendly media for Strecker reaction



**Mohammad Ali Zolfigol, Farhad Shirini,  
Gholamabbas Chehardoli, Eskandar Kolvari**

*Journal of Molecular Catalysis A: Chemical* 265  
(2007) 272

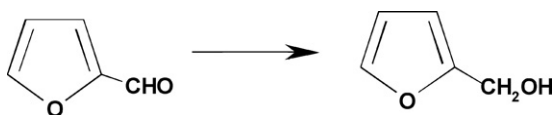
A catalytic and transition metal-free method for the chemoselective oxidation of alcohols to their corresponding carbonyl compounds using periodic acid or iodic acid in the presence of a catalytic amount of KBr



**Benjaram M. Reddy, Gunugunuri K. Reddy,  
Komateedi N. Rao, Ataullah Khan,  
Ibram Ganesh**

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Silica supported transition metal-based bimetallic catalysts for vapour phase selective hydrogenation of furfuraldehyde



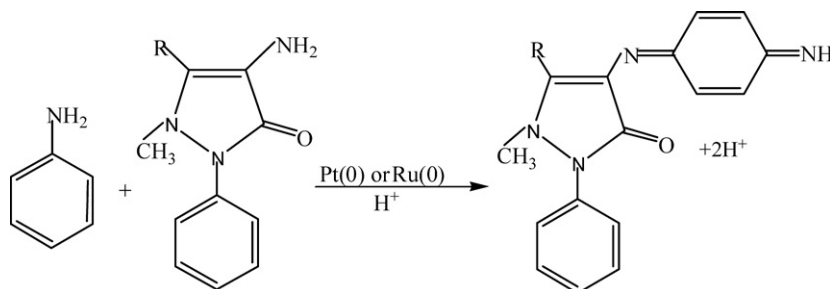
The Cu–Co/SiO<sub>2</sub>, Ni–Cu/SiO<sub>2</sub> and Co–Ni/SiO<sub>2</sub> bimetallic catalysts exhibit interesting catalytic activity for the vapour phase selective hydrogenation of furfuraldehyde to furfuryl alcohol.

**J. Santhanalakshmi, J. Kasthuri, N. Rajendiran**

*Journal of Molecular Catalysis A: Chemical* 265  
(2007) 283

Studies on the platinum and ruthenium nanoparticles catalysed reaction of aniline with 4-aminoantipyrene in aqueous and microheterogeneous media

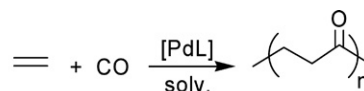
Platinum (Pnp) and ruthenium (Rnp) have been used for oxidation reaction involving aniline with 4-aminoantipyrene in aqueous and microheterogeneous media. The kinetics of formation of antipyrilquinoneimine dye is measured by UV–vis spectra at  $\lambda_{\text{max}} = 532 \text{ nm}$ . The rate of dye formation depends on the nature of metal nanoparticles, pH, salts and microheterogeneous media.



**Claudio Bianchini, Andrea Meli,  
Werner Oberhauser, Anna M. Segarra,  
Carmen Claver, Eduardo J. Garcia Suarez**

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(2007) 292

CO-ethylene copolymerization reactions in different reaction media catalyzed by palladium(II) complexes with chelating diphosphines bearing *ortho*-methoxy-substituted aryl groups



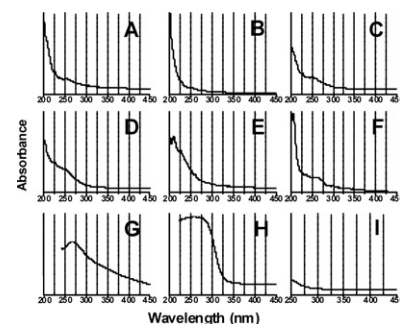
L: dppe, dppp, *o*-MeO-dppe, *o*-MeO-dppp  
solv.: MeOH, TFE, AcOH-H<sub>2</sub>O, CH<sub>2</sub>Cl<sub>2</sub>, toluene

**T.R. Gaydhankar, P.N. Joshi, P. Kalita,  
R. Kumar**

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(2007) 306

Optimal synthesis parameters and application of Sn-MCM-41 as an efficient heterogeneous catalyst in solvent-free Mukaiyama-type aldol condensation

Hydrothermal synthesis of mesoporous Sn-MCM-41 materials was established by optimizing crucial synthesis parameters such as molar TMAOH/SiO<sub>2</sub>, CTMABr/SiO<sub>2</sub>, H<sub>2</sub>O/SiO<sub>2</sub> and SiO<sub>2</sub>/SnO<sub>2</sub> ratios. Selected Sn-MCM-41 materials prepared using different silica and tin sources were evaluated for their efficiency in Mukaiyama-aldol condensation of methyl trimethylsilyldimethyl ketene acetal and benzaldehyde under solvent-free system. The differences in the catalytic behavior of the materials were found to depend on tin content, the intrinsic differences in Sn siting and textural properties. Diffuse reflectance UV-vis spectra of calcined Sn-MCM-41 samples:

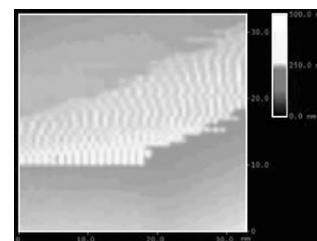


**Xinjun Wu, Xuebing Ma, Yeling Ji,  
Qiang Wang, Xiao Jia, Xiangkai Fu**

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(2007) 316

Synthesis and characterization of a novel type of self-assembled chiral zirconium phosphonates and its application for heterogeneous asymmetric catalysis

A readily available (1*S*,2*R*)-(+)-2-amino-1,2-diphenylethanol and (1*R*,2*S*)-(–)-2-amino-1,2-diphenylethanol were immobilized on the layered zirconium phosphonates for the first time to obtain the self-assembled structure on the surface lined regularly and homogeneously at 1.1 nm distance. Zirconium phosphonates (1*S*,2*R*)-(+)-**4a** with the interlayer space 20.11 Å enantioselectively catalyzed the addition of Et<sub>2</sub>Zn to benzaldehyde to afford optical secondary alcohol in >90% yield and 51% e.e.



**Sun Young Park, Bo Hyun Choi, Min Kang,  
Ji Man Kim, Ik-Mo Lee**

*Journal of Molecular Catalysis A: Chemical* 265  
(2007) 323

Diarylmethanes catalyzed by nickel(II) ion on nanoporous carbon

