

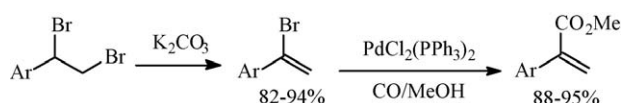
Contents

Articles

Priscila B. Silveira, Adriano L. Monteiro

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Pd-catalyzed carbonylation of α -arylviny bromides:
Synthesis of 2-arylacrylic esters

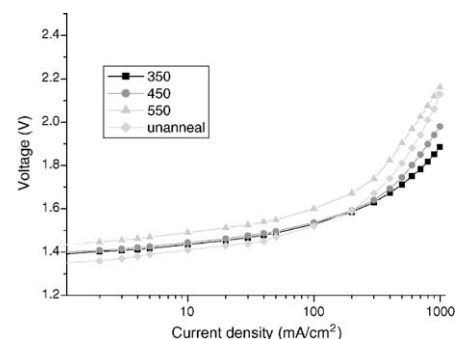


**Hongchao Ma, Changpeng Liu, Jianhui Liao,
Yi Su, Xingzhong Xue, Wei Xing**

Journal of Molecular Catalysis A: Chemical 247 (2006) 7

Study of ruthenium oxide catalyst for electrocatalytic
performance in oxygen evolution

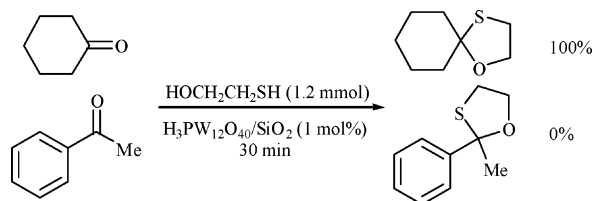
At low current densities the uncalcined material exhibits the best catalytic properties with the lowest total overpotential for OER. The potential then increases with increasing calcining temperature. At high current densities, above 200 mA cm², the potential of OER for uncalcined sample exceeds that of samples prepared at 350 and 450 °C and with a very steep rise of the slope of the curve. These results show that the catalytic properties of the material are governing the potential for OER at low current densities, whereas the ohmic resistance of the catalyst layer (R_f) determines the potential for OER at high current densities. This means that an optimum is found at 350 °C where the total anodic potential in the high current densities range of 0.2–1 A cm² is lowest.



**Habib Firouzabadi, Nasser Iranpoor,
Abbas Ali Jafari, Mohammad Reza Jafari**

Journal of Molecular Catalysis A: Chemical 247 (2006) 14

Tungstophosphoric acid supported on silica gel
(H₃PW₁₂O₄₀/SiO₂) as an eco-friendly, reusable and
heterogeneous catalyst for chemoselective
oxathioacetalization of carbonyl compounds in
solution or under solvent-free conditions



**Zheng Huan Lin, Chuan Jin Guan,
Xin Liang Feng, Cheng Xue Zhao**

Journal of Molecular Catalysis A: Chemical 247 (2006) 19

Synthesis of macroreticular *p*-(ω -sulfonic-perfluoroalkylated)polystyrene ion-exchange resin and its application as solid acid catalyst

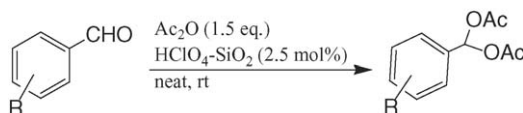
Macroreticular *p*-(ω -sulfonic-perfluoroalkylated)polystyrene (FPS) resins have been synthesized at mild conditions by following suspension polymerization of styrene and divinylbenzene, perfluoroalkylation by ω -fluorosulfonylperfluorodiacyl peroxides (SFAP), alkali hydrolysis and acidification. The FPS resins with terminal perfluorosulfonic acid group exhibited higher activity and selectivity than several commercial cation-exchange resins in the synthesis of ionone and diindolylmethanes (DIMs).



**Rishi Kumar, Pallavi Tiwari,
Prakas Ranjan Maulik, Anup Kumar Misra**

Journal of Molecular Catalysis A: Chemical 247 (2006) 27

HClO₄-SiO₂ catalyzed chemoselective synthesis of acylals from aldehydes under solvent-free conditions

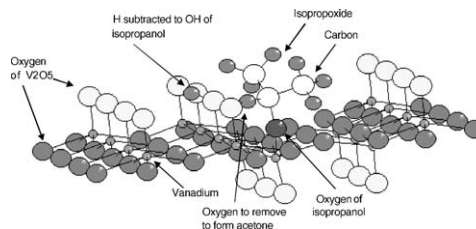


Gambaro Luis

Journal of Molecular Catalysis A: Chemical 247 (2006) 31

Isopropanol adsorption-oxidation over V₂O₅—A mass spectrometry study

The isopropanol and acetone adsorption-oxidation over V₂O₅ were studied by transients and temperature programmed surface reaction (TPSR) tests. It was concluded that isopropanol molecules replace some of the water molecules adsorbed but do not interact with molecules with higher adsorption energies as methanol. Isopropanol oxidation to acetone only uses oxygen from V₂O₅. Desorption of CO and CO₂ is related with incomplete isopropanol oxidation to acetone.

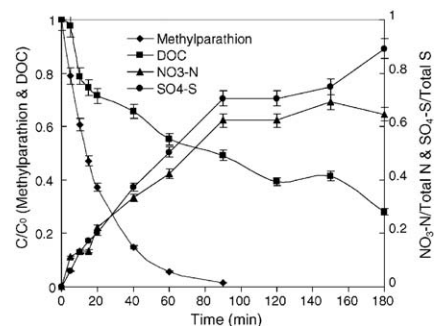


**S. Rengaraj, X.Z. Li, P.A. Tanner, Z.F. Pan,
G.K.H. Pang**

Journal of Molecular Catalysis A: Chemical 247 (2006) 36

Photocatalytic degradation of methylparathion—An endocrine disruptor by Bi³⁺-doped TiO₂

It has been demonstrated that methylparathion was effectively degraded in aqueous Bi-TiO₂ suspension to an extent of 97% within 120 min, whilst DOC was also converted into CO₂ with the high proportion of up to 62%.

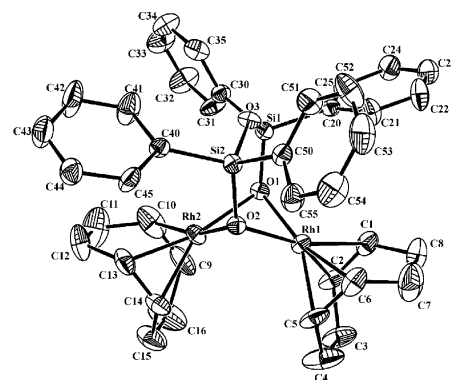


M. Ojeda, R. Fandos, J.L.G. Fierro, A. Otero, C. Pastor, A. Rodríguez, M.J. Ruiz, P. Terreros

Journal of Molecular Catalysis A: Chemical 247 (2006) 44

Synthesis and reactivity of heterometallic RhO–M (M = Si, Ti) complexes. Memory effect in their catalytic performance in CO hydrogenation

The heterometallic Rh–titanium salicylate and Rh–siloxide complexes were tested in the CO hydrogenation reaction showing higher yields to oxygenated products referred to Rh-based supported catalysts prepared by conventional methods.

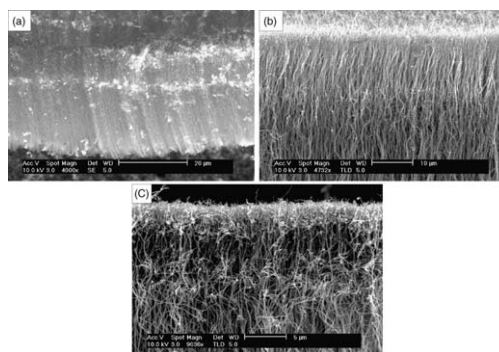


Huaping Liu, Guoan Cheng, Ruiting Zheng, Yong Zhao, Changlin Liang

Journal of Molecular Catalysis A: Chemical 247 (2006) 52

Layered growth of aligned carbon nanotubes arrays on silicon wafers

Varied morphologies of layered carbon nanotube arrays synthesized when the catalyst was pretreated in NH_3 for different time: (a) 12 min, (b) 10 min, (c) 8 min.

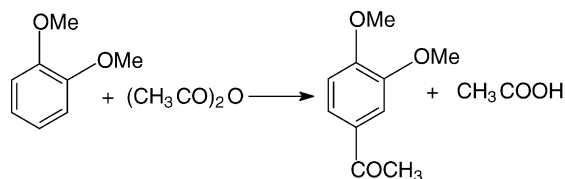


Ankur Bordoloi, Nevin T. Mathew, Biju M. Devassy, S.P. Mirajkar, S.B. Halligudi

Journal of Molecular Catalysis A: Chemical 247 (2006) 58

Liquid-phase veratrole acylation and toluene alkylation over WO_x/ZrO_2 solid acid catalysts

The liquid-phase acylation of veratrole with acetic anhydride and alkylation of toluene with 1-dodecene were carried out over WO_x/ZrO_2 solid acid catalysts. Catalyst with 15% WO_3 calcined at 800 °C (15 WZ-800) was found to be the most active in acylation and alkylation reactions.

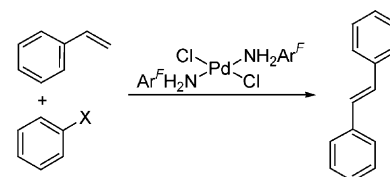


Oscar Baldovino-Pantaleón, Joaquín Barroso-Flores, J.A. Cogordan, Simón Hernández-Ortega, Rubén A. Toscano, David Morales-Morales

Journal of Molecular Catalysis A: Chemical 247 (2006) 65

Phosphane-free C–C Heck couplings catalyzed by Pd(II) fluorinated aniline complexes of the type $\text{trans-}[\text{PdCl}_2(\text{NH}_2\text{Ar}^F)_2]$

A series of palladium complexes of the type $\text{trans-}[\text{PdCl}_2(\text{NH}_2\text{Ar}^F)_2]$ were synthesized and the effect of the fluorinated aniline ligands in the catalytic performance of these complexes examined in the Heck coupling reaction.

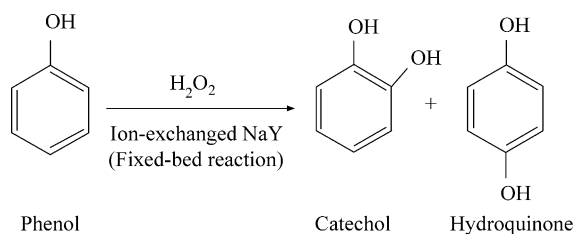


**Jung-Nam Park, Jun Wang, Kyu Yong Choi,
Wei-Yang Dong, Suk-In Hong, Chul Wee Lee**

Journal of Molecular Catalysis A: Chemical 247
(2006) 73

Hydroxylation of phenol with H_2O_2 over Fe^{2+}
and/or Co^{2+} ion-exchanged NaY catalyst in the
fixed-bed flow reactor

The hydroxylation of phenol with H_2O_2 was studied in an atmospheric fixed-bed flow reactor. At the reaction temperature of 70°C , phenol/ H_2O_2 molar ratio of 3, WHSV of 4 h^{-1} , and water/phenol weight ratio of 4.5, the Fe and Co ion-exchanged NaY catalyst gave phenol conversion of 21.8%. The effective conversion of H_2O_2 was 56.6%, and the selectivity to catechol and hydroquinone was 44.8 and 16.5%, respectively.

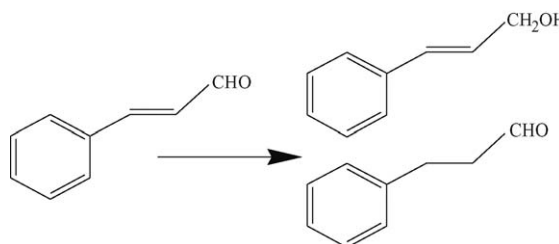


**Benjaram M. Reddy, Gundapaneni M. Kumar,
Ibram Ganesh, Ataulah Khan**

Journal of Molecular Catalysis A: Chemical 247
(2006) 80

Vapour phase hydrogenation of cinnamaldehyde
over silica supported transition metal-based
bimetallic catalysts

The Cu–Co/ SiO_2 bimetallic catalyst exhibited promising results for the selective hydrogenation of cinnamaldehyde to cinnamyl alcohol, whereas Co–Ni/ SiO_2 and Ni–Cu/ SiO_2 combination catalysts provided good yields of hydrocinnamaldehyde.

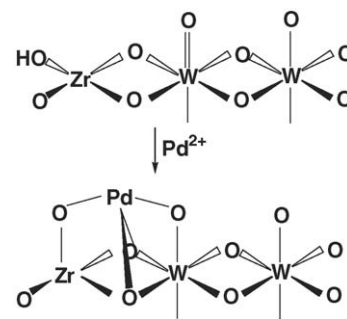


Margarita Kantcheva, Ilknur Cayirtepe

Journal of Molecular Catalysis A: Chemical 247
(2006) 88

Routes of formation and composition of NO_x com-
plexes adsorbed on palladium-promoted tungstated
zirconia

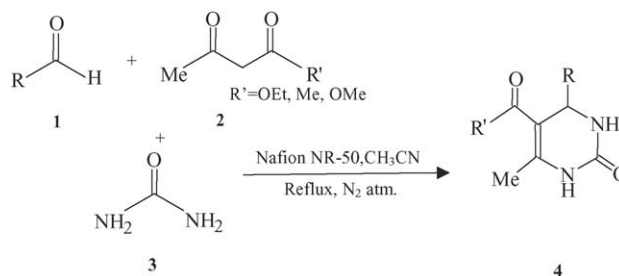
Pd-free (WZ) and Pd-promoted tungstated zirconia (Pd/WZ) are characterized by means of XRD, DR-UV-vis and FT-IR spectroscopy. The WZ and Pd/WZ samples have a tetragonal structure and contain randomly distributed mesoporous phase. Dispersed palladium(II) species are present in two different environments. The surface compounds obtained during the adsorption of NO and NO/O_2 coadsorption at room temperature and the processes leading to their formation are discussed.



Jomy K. Joseph, Suman L. Jain, Bir Sain

Journal of Molecular Catalysis A: Chemical 247
(2006) 99

Ion exchange resins as recyclable and heterogeneous
solid acid catalysts for the Biginelli condensation:
An improved protocol for the synthesis of 3,4-
dihydropyrimidin-2-ones

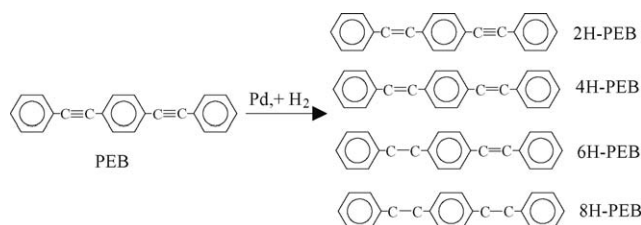


Ilan Pri-Bar, Svetlana Pevzner, Jacob E. Koresh

Journal of Molecular Catalysis A: Chemical 247 (2006) 103

On the mechanism of Pd-catalyzed low pressure gas–solid hydrogenation

The catalyzed reaction of hydrogen gas with unsaturated solid organic substrates (PEB/catalyst), in the absence of a solvent was studied. The evidence for hydrogen mobility inside the PEB lattice was demonstrated. It was shown that hydrogen mobility dictates both the reaction rate and composition of the products mixture.

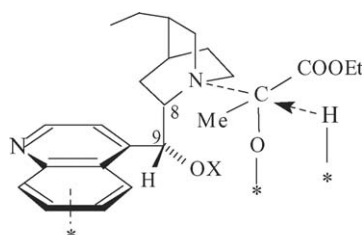


Szabolcs Cserényi, Károly Felföldi, Katalin Balázsik, György Szöllösi, Imre Bucsi, Mihály Bartók

Journal of Molecular Catalysis A: Chemical 247 (2006) 108

C9-O-substituted derivatives of cinchona alkaloids as chiral modifiers in the Orito-reaction: Effects of structure of modifiers on sense of enantioselectivity

In hydrogenation of ethyl pyruvate when the bulk of X was increased, the enantioselectivity not only decreased, but inversion also took place dependent on configuration of C8 and C9 atoms of the modifiers.

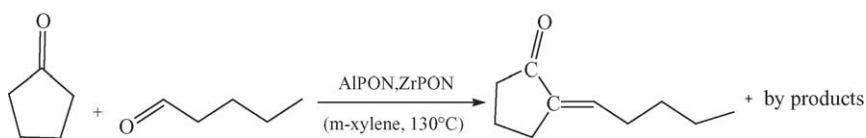


Moez Hasni, Gwenola Prado, Jean Rouchaud, Paul Grange, Michel Devillers, Stéphanie Delsarte

Journal of Molecular Catalysis A: Chemical 247 (2006) 116

Liquid phase aldol condensation of cyclopentanone with valeraldehyde catalysed by oxynitrides possessing tuneable acid–base properties

The aldol condensation reaction between cyclopentanone and pentanal was carried out in a batch reactor, at atmospheric pressure and 130 °C over phosphate precursors AlPO_4 and $\text{Zr}_{0.9}\text{PO}_{4.3}$ and their nitrated samples 'AIPON' and 'ZrPON'. The effect of nitridation on the catalytic activity is discussed in relation with the influence of nitridation on the acidity/basicity.

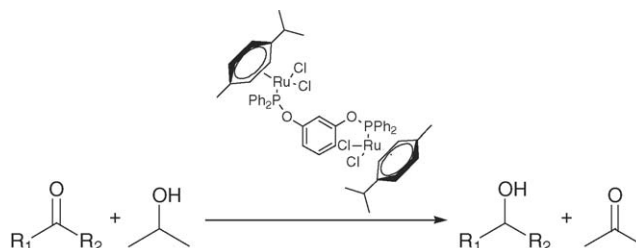


Ricardo Cerón-Camacho, Valente Gómez-Benítez, Ronan Le Lagadec, David Morales-Morales, Rubén A. Toscano

Journal of Molecular Catalysis A: Chemical 247 (2006) 124

Ketone transfer hydrogenation reactions catalyzed by a phosphinite ruthenium PCP complex. The X-ray crystal structure of $[\text{C}_6\text{H}_4-1,3-(\text{OPh}_2)\{\text{Ru}(\eta^6-p\text{-cymene})\text{Cl}_2\}]_2$

The reaction of the phosphinite PCP ligand $[\text{C}_6\text{H}_4-1,3-(\text{OPh}_2)_2]$ with $[(\eta^6-p\text{-cymene})\text{RuCl}_2]_2$ affords the bimetallic species $[\text{C}_6\text{H}_4-1,3-(\text{OPh}_2)\{\text{Ru}(\eta^6-p\text{-cymene})\text{Cl}_2\}]_2$. The complex $[\text{C}_6\text{H}_4-1,3-(\text{OPh}_2)\{\text{Ru}(\eta^6-p\text{-cymene})\text{Cl}_2\}]_2$ is an efficient catalyst in the transfer hydrogenation of ketones in Pr^iOH .



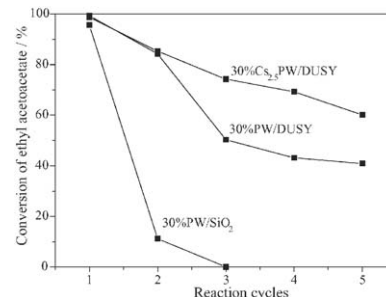
**Fumin Zhang, Chaoshu Yuan, Jun Wang,
Yan Kong, Haiyang Zhu, Chunyan Wang**

Journal of Molecular Catalysis A: Chemical 247
(2006) 130

Synthesis of fructose over dealuminated USY supported heteropoly acid and its salt catalysts

The catalytic stability of 30%PW/DUSY, 30%Cs_{2.5}PW/DUSY and 30%PW/SiO₂ in acetalization of ethyl acetoacetate with ethylene glycol into fructose is compared under the optimal reaction conditions, as shown in Fig. 12. It is revealed that the 30%PW/SiO₂ catalyst exhibits an initial activity with conversion of ethyl acetoacetate being 95.6% and selectivity of fructose above 97%, which is comparable with those over DUSY supported samples. However, 30%PW/SiO₂ loses its catalytic activity completely after three reaction cycles, which indicates a very quick deactivation. The 30%PW/DUSY also deactivates quickly, and a low conversion of 40.9% remains at the fifth reaction cycle. In contrast, for 30%Cs_{2.5}PW/DUSY, a rather high conversion of 66.2% still could be achieved after five times of reac-

tion. It should be noted that the decrease of conversion in Fig. 12 arising from the catalyst lost during the separation and transfer of the catalyst for the next reaction recycle cannot be excluded.

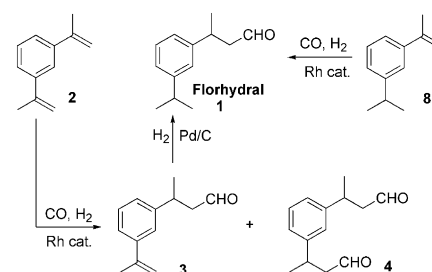


**Stefano Paganelli, Alessandra Ciappa,
Mauro Marchetti, Alberto Scrivanti,
Ugo Matteoli**

Journal of Molecular Catalysis A: Chemical 247
(2006) 138

Hydroformylation of *m*-diisopropenylbenzene and 1-isopropyl-3-isopropenylbenzene for the preparation of the fragrance Florhydryal[®]

The rhodium catalyzed hydroformylation of **2** affords a mixture of aldehyde **3**, a precursor of the valuable fragrance Florhydryal[®], and **4**. The formation of the useless dialdehyde **4** becomes increasingly important at substrate conversions higher than 30%. Alternatively, the hydroformylation of olefin **8** is chemo- and regioselective affording Florhydryal[®] in almost quantitative yield.



**Norman Marín-Astorga, Gina Pecchi,
Thomas J. Pinnavaia, Gabriela Alvez-Manoli,
Patricio Reyes**

Journal of Molecular Catalysis A: Chemical 247
(2006) 145

Mesoporous silicas as supports for palladium-catalyzed hydrogenation of phenyl acetylene and 1-phenyl-1-hexyne to alkenes

The stereoselective hydrogenation of phenyl acetylene and 1-phenyl-1-hexyne at 298 K and atmospheric pressure of H₂ over HMS, MSU-X, and MCM-41 supported Pd catalysts has been studied. The reactions were found to be zero order concerning the phenyl acetylene and 1-phenyl-1-hexyne concentration. The catalytic behaviour suggests an important effect produced by the differences in the characteristics of the supports. Thus, the 1%Pd/HMS catalyst was the most active compared to 1%Pd/MSU-X and 1%Pd/MCM-41 catalysts, which was attributed to the presence of interconnected channels which can increase the activity in a higher extent compared to straight channels observed in the others support. All catalysts displayed high selectivity to styrene and *cis*-1-phenyl-1-hexyne compounds.

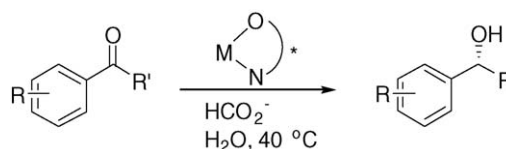


**Xiaofeng Wu, Xiaohong Li,
Matthew McConville, Ourida Saidi,
Jianliang Xiao**

Journal of Molecular Catalysis A: Chemical 247
(2006) 153

β -Amino alcohols as ligands for asymmetric transfer hydrogenation of ketones in water

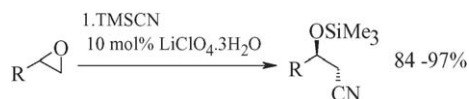
β -Amino alcohols in combination with Ru(II), Rh(III) or Ir(III) are shown to be capable of catalyzing asymmetric transfer hydrogenation of aryl ketones by formate in water, affording enantioselectivities in up to 87% ee.



**Bahareh Mirmashhori, Najmodin Azizi,
Mohammad R. Saidi**

Journal of Molecular Catalysis A: Chemical 247
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A simple, economical, and highly efficient synthesis of β -hydroxynitriles from epoxide under solvent free conditions

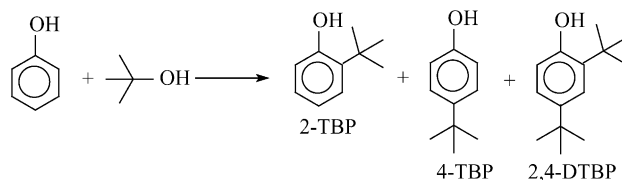


Biju M. Devassy, G.V. Shanbhag, S.B. Halligudi

Journal of Molecular Catalysis A: Chemical 247
(2006) 162

Phenol *tert*-butylation over zirconia-supported 12-molybdophosphoric acid catalyst

The alkylation of phenol with *tert*-butanol using zirconia-supported 12-molybdophosphoric acid as catalysts gave 80.6% phenol conversion with products' selectivities 2-TBP, 11.5%; 2,4-DTBP, 55.2% and 4-TBP, 25.7% after 2 h under selected reaction conditions.

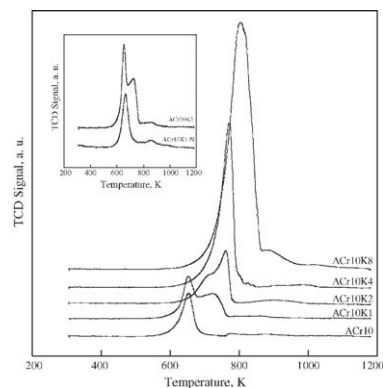


**E. Rombi, M.G. Cutrufello, S. De Rossi,
M.F. Sini, I. Ferino**

Journal of Molecular Catalysis A: Chemical 247
(2006) 171

Catalytic nitroxidation of 1-methylnaphthalene

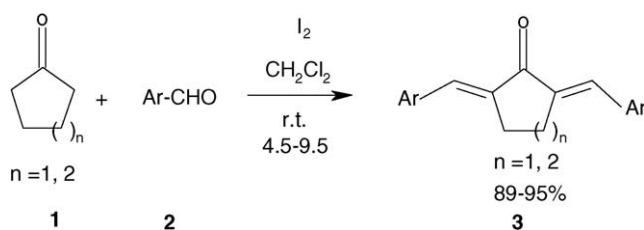
The redox features, the NO-surface interactions and the acid-base properties of chromia/alumina are modified by introducing potassium in the catalyst formulation. New Cr(VI) species are generated, the extent of catalyst reduction is enhanced, and the acid-base features of the catalyst modulated, which is expected to influence the 1-methylnaphthalene nitroxidation activity.



**Biswanath Das, Ponnaboina Thirupathi,
Ibram Mahender, Kongara Ravinder Reddy**

Journal of Molecular Catalysis A: Chemical 247
(2006) 182

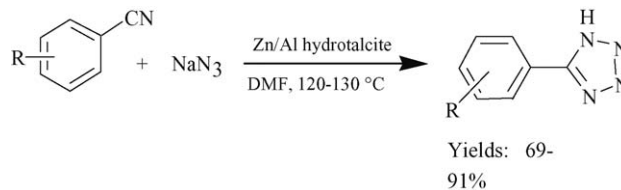
Convenient and facile cross-Aldol condensation catalyzed by molecular iodine: An efficient synthesis of α,α' -bis(substituted-benzylidene) cycloalkanones



**M. Lakshmi Kantam, K.B. Shiva Kumar,
K. Phani Raja**

Journal of Molecular Catalysis A: Chemical 247
(2006) 186

An efficient synthesis of 5-substituted 1*H*-tetrazoles using Zn/Al hydrotalcite catalyst

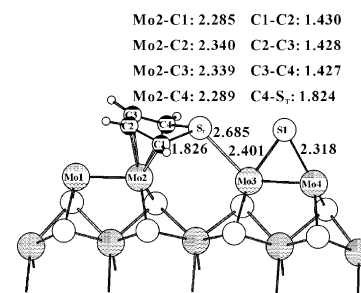


**Guisheng Wu, Kangnian Fan, B. Delmon,
Yong-Wang Li**

Journal of Molecular Catalysis A: Chemical 247
(2006) 189

Formation and adsorption properties of the bridging sulfur vacancies at the (1010) edge of $\text{Mo}_{27}\text{S}_{(54-x)}$: A theoretical study

The successive removal of surface sulfur atoms with the formation of coordinatively unsaturated sites (CUS) was studied in details, which have been considered as the active sites for hydrodesulfurization of sulfur-containing compounds. On the basis of the computed enthalpies of vacancy formation for $\text{Mo}_{27}\text{S}_{(54-x)}$ deduced from $\text{Mo}_{27}\text{S}_{54}$, it is found that both H_2 and atomic hydrogen are active for $\text{Mo}_{27}\text{S}_{(54-x)}$ ($x = 1-3$), while only atomic hydrogen is active for $\text{Mo}_{27}\text{S}_{(54-x)}$ ($x = 4-6$). However, CUS of $\text{Mo}_{27}\text{S}_{(54-x)}$ ($x = 4-6$) can activate thiophene more strongly than that of $\text{Mo}_{27}\text{S}_{(54-x)}$ ($x = 1-3$).

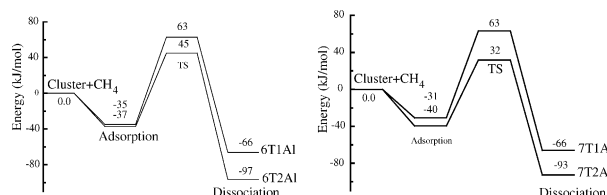


Jian-guo Wang, Chang-jun Liu

Journal of Molecular Catalysis A: Chemical 247
(2006) 199

Density functional theory study of methane activation over PdO/HZSM-5

The study by density functional theory calculations shows that the catalytic activity of PdO can be affected by the acidity of zeolite and more acidic sites would reduce the activation energy for methane activation. The activation energies of methane dissociation over 6T1Al, 6T2Al, 7T1Al and 7T2Al-PdO/HZSM-5 are 98, 82, 94 and 72 kJ/mol, respectively.



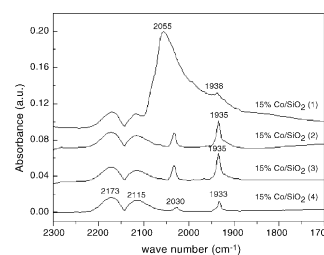
Dechen Song, Jinlin Li

Journal of Molecular Catalysis A: Chemical 247
(2006) 206

Effect of catalyst pore size on the catalytic performance of silica supported cobalt Fischer-Tropsch catalysts

A series of cobalt catalysts supported on silica with different pore sizes were prepared by incipient wetness impregnation method. The influence of pore diameter on the adsorption property of the Co/SiO_2 catalysts was studied by diffuse reflectance FTIR spectroscopy (DRIFTS) using CO as probe molecules. Figure shows the DRIFTS profiles of the Co/SiO_2 catalysts. The peaks at 2173 and 2115 cm^{-1} were assigned to gaseous carbon monoxide. The peak at 2030 cm^{-1} was assigned to CO adsorbed on cobalt particles in linear geometry, and the peak at 1935 cm^{-1} was due to the bridged CO adsorbed on cobalt metals. For $\text{Co/SiO}_2(1)$ the peak intensity at 2055 cm^{-1} was very big and almost overlapped the peak at 1938 cm^{-1} . It could be attributed to CO linearly adsorbed on Co^0 or Co^+ . The peak intensities of bridged CO adsorption at 1935 cm^{-1} on $\text{Co/SiO}_2(2)$ and $\text{Co/SiO}_2(3)$ were stronger than $\text{Co/SiO}_2(4)$ and

$\text{Co/SiO}_2(1)$, indicating that there were more active sites available in $\text{Co/SiO}_2(2)$ and $\text{Co/SiO}_2(3)$. The results indicated that only cobalt supported on support with appropriate pore size could provide the appropriate particle size and the optimum number of active sites, particles that are too small or too big would be unfavorable for CO adsorption.

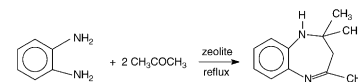


**Mahmood Tajbakhsh, Majid M. Heravi,
Bagher Mohajerani, Amir N. Ahmadi**

Journal of Molecular Catalysis A: Chemical 247
(2006) 213

Solid acid catalytic synthesis of 1,5-benzodiazepines: A highly improved protocol

1,5-benzodiazepines were synthesized from the reaction of *o*-phenylenediamine and ketones in the presence of heterogeneous catalysis of synthetic and natural zeolites under mild conditions in very good yields and high selectivity.

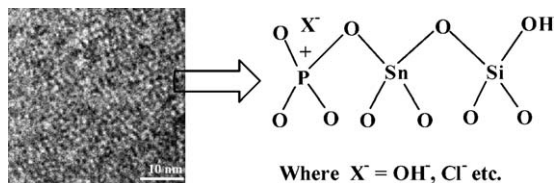


**Debraj Chandra, Nawal Kishor Mal,
Asim Bhaumik**

Journal of Molecular Catalysis A: Chemical 247
(2006) 216

Novel mesoporous silicotinphosphate molecular sieve with high anion exchange capacity

Disordered mesoporous silico–tin–phosphate materials with different Si:Sn:P mole ratios have been synthesized under hydrothermal condition using the self-assembly of cationic surfactant under mild acid pHs and these materials showed good anion exchange capacity and catalytic activity in partial oxidation reaction.

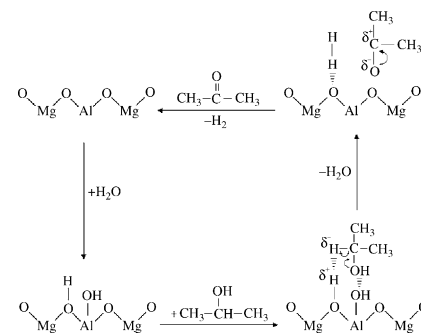


J.H. Zhang, X.L. Zhou, J.A. Wang

Journal of Molecular Catalysis A: Chemical 247
(2006) 222

Water promotion or inhibition effect on isopropanol decomposition catalyzed with a sol–gel MgO–Al₂O₃ catalyst

A hydroxyls-assisted dehydrogenation pathway was postulated in the isopropanol decomposition catalyzed with a sol–gel MgO–Al₂O₃ catalyst in the case of water stream presence in the reaction inlet mixture

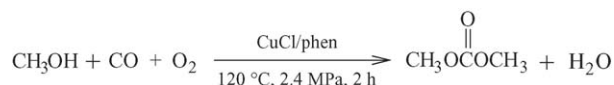


**Wanling Mo, Hui Xiong, Tao Li,
Xiaochuan Guo, Guangxing Li**

Journal of Molecular Catalysis A: Chemical 247
(2006) 227

The catalytic performance and corrosion inhibition of CuCl/Schiff base system in homogeneous oxidative carbonylation of methanol

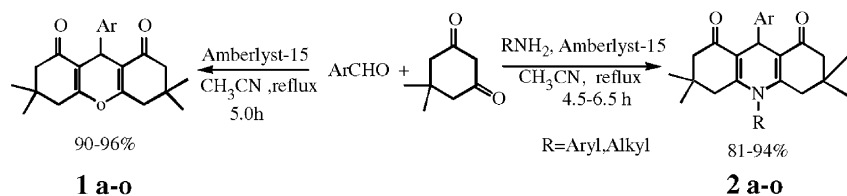
A homogeneous catalytic system, CuCl/Schiff base, was studied in the synthesis of dimethyl carbonate by oxidative carbonylation of methanol with carbon monoxide and oxygen. It was found that among the catalysts of CuCl/Schiff base studied, the catalyst of CuCl/phen exhibited high catalytic activity, long catalytic lifetime and excellent corrosion resistance.



**Biswanath Das, Ponnaboina Thirupathi,
I. Mahender, V. Saidi Reddy,
Yerra Koteswara Rao**

Journal of Molecular Catalysis A: Chemical 247
(2006) 233

Amberlyst-15: An efficient reusable heterogeneous catalyst for the synthesis of 1,8-dioxo-octahydro-anthene and 1,8-dioxo-decahydroacridines

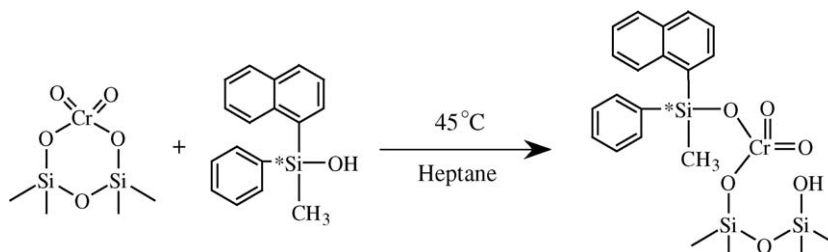


**Yuwei Fang, Wei Xia, Man He, Boping Liu,
Kouichi Hasebe, Minoru Terano**

Journal of Molecular Catalysis A: Chemical 247
(2006) 240

Novel SiO_2 -supported chromium catalyst bearing new organo-siloxane ligand for ethylene polymerization

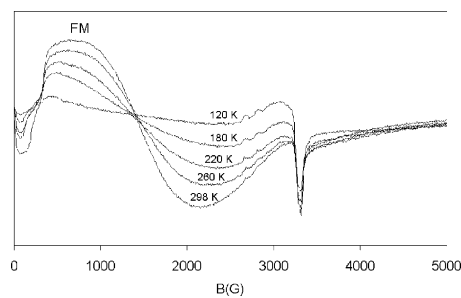
A novel Cr-based catalyst bearing new organo-siloxane ligand was developed successfully through chemical modification of traditional Phillips $\text{CrO}_3/\text{SiO}_2$ catalyst using a chiral organo-silanol namely (*R*)-methyl-(1-naphthyl)-phenylsilanol. The catalyst combined with triethylaluminum (TEA) was found to produce polyethylene with bimodal molecular weight distribution, as well as to promote short chain branching.



**C. Oliva, S. Cappelli, A. Kryukov,
G.L. Chiarello, A.V. Vishniakov, L. Forni**

Journal of Molecular Catalysis A: Chemical 247
(2006) 248

EMR characterisation of $\text{La}_{1.8}\text{M}_{0.2}\text{CuO}_4$ and $\text{La}_{0.9}\text{M}_{0.1}\text{CoO}_3$ ($\text{M} = \text{Pr, Sm, Tb}$) catalysts for methane flameless combustion

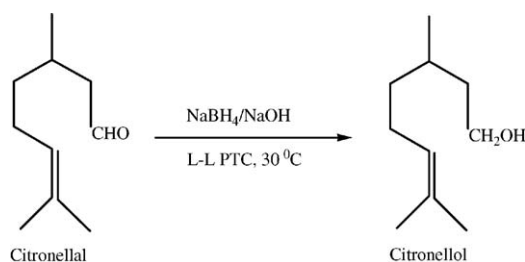


Ganapati D. Yadav, Sharad V. Lande

Journal of Molecular Catalysis A: Chemical 247
(2006) 253

Novelties of kinetics of chemoselective reduction of citronellal to citronellol by sodium borohydride under liquid-liquid phase transfer catalysis

A 100% chemoselective reduction of citronellal using sodium borohydride is studied under liquid-liquid phase transfer catalysis.

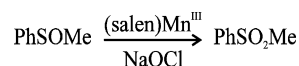


**Arunachalam Chellamani,
Sivalingam Harikengaram**

Journal of Molecular Catalysis A: Chemical 247
(2006) 260

Mechanism of oxidation of aryl methyl sulfoxides with sodium hypochlorite catalyzed by (salen)Mn^{III} complexes

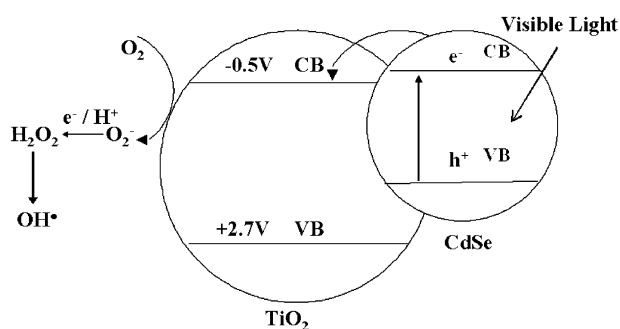
(Salen)Mn^{III} complexes catalyzed NaOCl oxidation of aryl methyl sulfoxides to sulfones in 90% acetonitrile–10% water (v/v) follows an overall second-order kinetics, first-order each in the oxo complex and the substrate. The less nucleophilic sulfoxides are more sensitive to substituent effect compared to the corresponding sulfides. Substituent, acid and solvent effect studies reveal the operation of a common S_N2 mechanism. A valid reactivity–selectivity principle is observed in this redox system.



Wingkei Ho, Jimmy C. Yu

Journal of Molecular Catalysis A: Chemical 247
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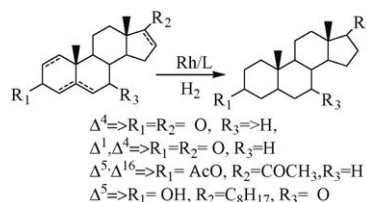
Sonochemical synthesis and visible light photocatalytic behavior of CdSe and CdSe/TiO₂ nanoparticles



**Rui M.D. Nunes, Andreia F. Peixoto,
M. Rosa Axet, Mariette M. Pereira,
Maria José Moreno, László Kollár,
Carmen Claver, Sergio Castellón**

Journal of Molecular Catalysis A: Chemical 247
(2006) 275

Selective hydrogenation of α,β -unsaturated oxosteroids with homogeneous rhodium catalysts



**Lorena L. Garza-Tovar,
Leticia M. Torres-Martínez,
D. Bernal Rodríguez, R. Gómez, G. del Angel**

Journal of Molecular Catalysis A: Chemical 247
(2006) 283

Photocatalytic degradation of methylene blue on Bi₂MnNbO₇ (M = Al, Fe, In, Sm) sol-gel catalysts

Sol-gel Bi₂FeNbO₇ compound treated at 400 °C presents in the methylene blue decomposition the higher photocatalytic activity ($t_{1/2} = 13$ min) compared with similar composition prepared by solid state reaction ($t_{1/2} = 37$ min). Moreover, sol-gel preparations are most active than the well-know TiO₂ (Degussa P-25) photocatalyst ($t_{1/2} = 45$ min).

