

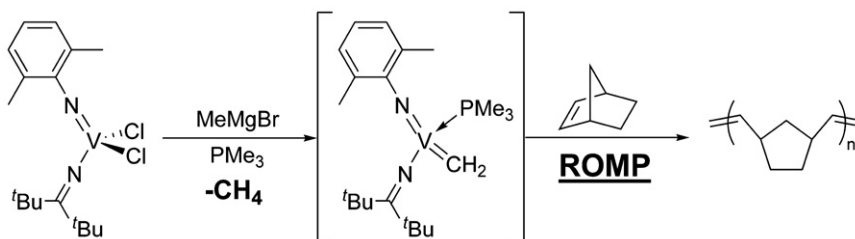
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Articles

**Kotohiro Nomura, Takashi Atsumi,
Michiya Fujiki, Junji Yamada**

*Journal of Molecular Catalysis A: Chemical 275
(2007) 1*

Efficient ring-opening metathesis polymerization of norbornene by vanadium-alkylidenes generated *in situ* from V(NAr)Cl₂(L) (L: ketimide, aryloxo)

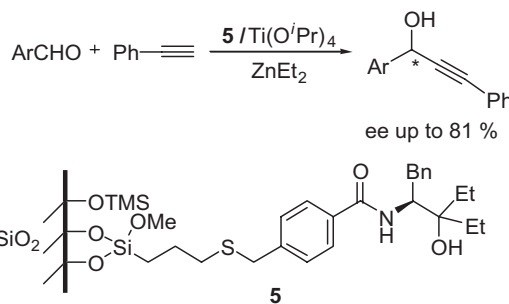


**Lu-Ning Huang, Xin-Ping Hui, Zhi-Ce Chen,
Chao Yin, Peng-Fei Xu, Xiao-Xia Yu,
Shao-Yi Cheng**

*Journal of Molecular Catalysis A: Chemical 275
(2007) 9*

Enantioselective addition of phenylacetylene to aldehydes catalyzed by silica-immobilized titanium (IV) complex of β -hydroxyamide

A chiral β -hydroxy amide was synthesized from L-phenylalanine and successfully grafted onto amorphous silica gel. Asymmetric addition of phenylacetylene to aldehydes was catalyzed by silica-immobilized titanium(IV) complex of β -hydroxy amides with good enantioselectivities (up to 81% ee). After readily recoverable procedure, the ligand could be reused several times without serious loss of enantioselectivity.

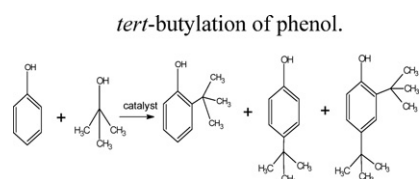


**Nikunj Bhatt, Anjali Patel, Parasuraman
Selvam, Kalpesh Sidhpuria**

*Journal of Molecular Catalysis A: Chemical 275
(2007) 14*

Fresh and calcined supported 12-tungstosilicicacid: Synthesis, characterization and application to some acid catalyzed reactions

12-Tungstosilicicacid (TSA) supported onto neutral alumina has been synthesized and characterized by various physicochemical techniques and used as solid acid catalyst for carrying out acid catalyzed reactions. The results were compared with 12-tungstosilicicacid supported onto hydrous zirconia in order to see the effect of nature of support.



**Mohammad A. Bigdeli, Majid M. Heravi,
Gholam Hossein Mahdavinia**

Journal of Molecular Catalysis A: Chemical 275
(2007) 25

Silica supported perchloric acid ($\text{HClO}_4\text{-SiO}_2$): A mild, reusable and highly efficient heterogeneous catalyst for the synthesis of 14-aryl or alkyl-14-*H*-dibenzo[*a,j*]xanthenes

$\text{HClO}_4\text{-SiO}_2$ provides a simple, efficient, rapid and environmentally benign route for the synthesis of 14-aryl or alkyl-14-*H*-dibenzo[*a,j*]xanthenes.

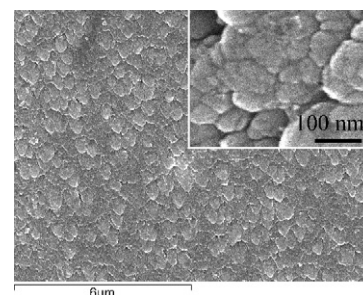


**Gonghu Li, Le Chen, Michael E. Graham,
Kimberly A. Gray**

Journal of Molecular Catalysis A: Chemical 275
(2007) 30

A comparison of mixed phase titania photocatalysts prepared by physical and chemical methods: The importance of the solid–solid interface

Mixed phase titania prepared by reactive magnetron sputtering demonstrated better photocatalytic activity than those prepared by other methods. The improved photoactivity is suggested to be associated with a unique distribution of charge trapping sites and a high density of solid–solid interfaces between anatase and rutile phases in the sputtered titania materials.

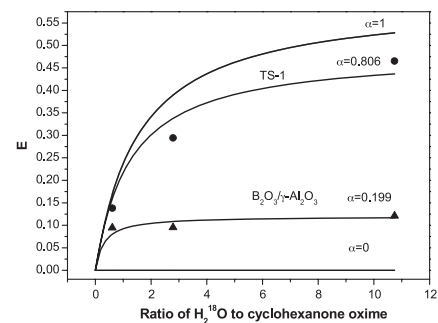


**Zhen Zhang, Junpeng Xing, Jing Li,
Xiangguang Yang**

Journal of Molecular Catalysis A: Chemical 275
(2007) 36

Investigation of “Rearrangement Step” in classical Beckmann rearrangement mechanism over solid acid by means of ^{18}O isotopic labeling

Beckmann rearrangement mechanism in gas phase and catalyzed by $\text{B}_2\text{O}_3/\gamma\text{-Al}_2\text{O}_3$ and TS-1 have been investigated by isotope labeling approach. The formed water is only partially released or there is still some interaction between the formed H_2O and the nitrilium cation. Dissociation degree (α) values for $\text{B}_2\text{O}_3/\gamma\text{-Al}_2\text{O}_3$ and TS-1 are 0.199 and 0.806 at reaction conditions, respectively.

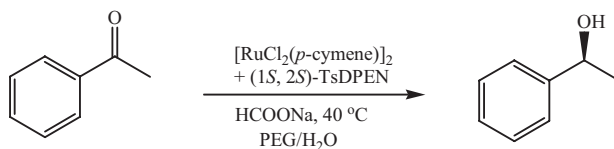


**Hai-Feng Zhou, Qing-Hua Fan, Yi-Yong Huang,
Lei Wu, Yan-Mei He, Wei-Jun Tang,
Lian-Quan Gu, Albert S.C. Chan**

Journal of Molecular Catalysis A: Chemical 275
(2007) 47

Mixture of poly(ethylene glycol) and water as environmentally friendly media for efficient enantioselective transfer hydrogenation and catalyst recycling

The asymmetric transfer hydrogenation of nonfunctionalized aromatic ketones catalyzed by Ru-TsDPEN catalyst was performed successfully in a mixture of poly(ethylene glycol) (PEG) and water with high activity and enantioselectivity. The unmodified catalyst could be easily recovered after extraction of the reduced product with a less polar solvent such as hexane, and was reused at least 14 times without obvious loss in enantioselectivity.



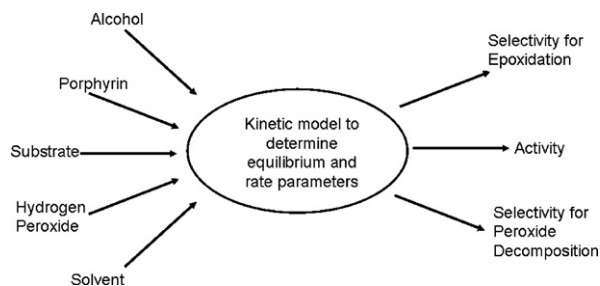
100% conv. and 96–94% ee
with at least 14 catalytic cycles

Ned A. Stephenson, Alexis T. Bell

Journal of Molecular Catalysis A: Chemical 275 (2007) 54

Mechanistic insights into iron porphyrin-catalyzed olefin epoxidation by hydrogen peroxide: Factors controlling activity and selectivity

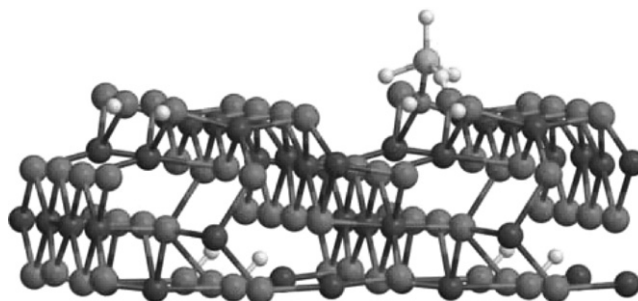
A summary is presented of our previous research efforts regarding the mechanistic understanding of porphyrin-catalyzed epoxidation of olefins by hydrogen peroxide. The sum of the work presents a mechanism that describes accurately the effects of alcohol, porphyrin, substrate, hydrogen peroxide, and solvent compositions and concentrations on selectivity and activity.

**Shuhui Cai, Viorel Chihai, Karl Sohlberg**

Journal of Molecular Catalysis A: Chemical 275 (2007) 63

Interactions of methane, ethane and pentane with the (110C) surface of γ -alumina

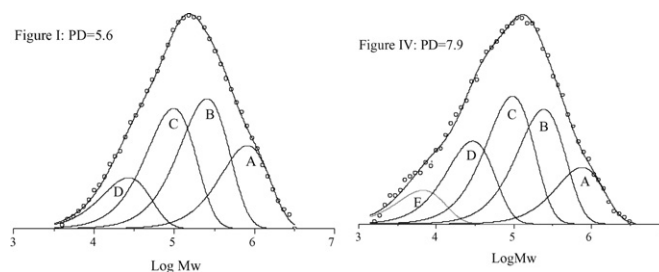
Methane, ethane and pentane can be dehydrogenated by interaction with a γ -alumina surface. Several interaction configurations lead to dehydrogenation, including this two-center interaction of methane.

**Xue Jiang, Xiuzhi Tian, Zhiqiang Fan, Kuanjun Fang, Zhisheng Fu, Junting Xu, Qi Wang**

Journal of Molecular Catalysis A: Chemical 275 (2007) 72

Control of the molecular weight distribution and tacticity in 1-hexylene polymerization catalyzed by $\text{TiCl}_4/\text{MgCl}_2\text{-NaCl}/\text{TEA}$ catalysis system

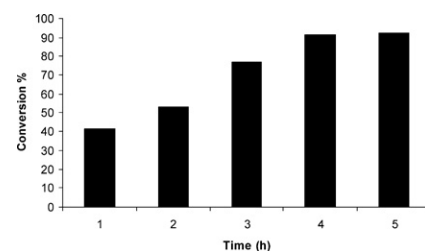
The deconvolution of the molecular weight distribution profile showed that the active center of the $\text{TiCl}_4/\text{MgCl}_2\text{-NaCl}/\text{TEA}$ catalysis system can be controlled by the doping of MgCl_2 by NaCl .

**K.M. Parida, Sujata Mallick**

Journal of Molecular Catalysis A: Chemical 275 (2007) 77

Silicotungstic acid supported zirconia: An effective catalyst for esterification reaction

The esterification of acetic acid with various alcohols is an electrophilic substitution reaction, catalysed by strong Brønsted acid sites. The influence of reaction time on the acetic acid conversion was given above using 15 wt% ZSTA as catalyst (0.025 g). A gradual rise in the conversion was seen with increase in duration of the reaction period. As seen from figure, in 4 h of reaction time, 91.5% of conversion is obtained, whereas at the end of 5 h only 92% of the reaction is complete.

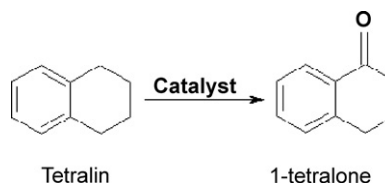


**C. Mahendiran, P. Sangeetha, P. Vijayan,
S.J. Sardhar Basha, K. Shanthi**

Journal of Molecular Catalysis A: Chemical 275
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Vapour phase oxidation of tetralin over Cr and Fe substituted MCM-41 molecular sieves

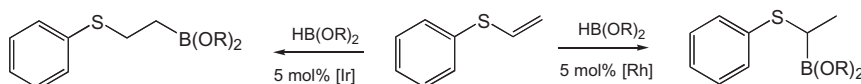
Vapour phase oxidation of tetralin to 1-tetralone using molecular oxygen is reported for the first time on Cr and Fe substituted MCM-41 molecular sieves. The reaction is considered to occur in two steps: oxidation of tetralin to tetralol and oxidation of the latter to 1-tetralone, with the former process occurring over Cr^{3+} and the latter over Cr^{6+} .



**Jonathan D. Webb, Daniel J. Harrison,
David W. Norman, Johanna M. Blacquiere,
Christopher M. Vogels, Andreas Decken,
Craig G. Bates, D. Venkataraman,
R. Thomas Baker, Stephen A. Westcott**

Journal of Molecular Catalysis A: Chemical 275
(2007) 91

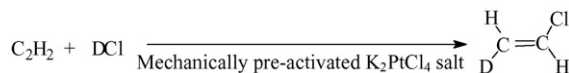
Metal catalysed hydroboration of vinyl sulfides, sulfoxides, sulfones, and sulfonates



**Serge A. Mitchenko, Tatyana V. Krasnyakova,
Regina S. Mitchenko, Alexander N. Korduban**

Journal of Molecular Catalysis A: Chemical 275
(2007) 101

Acetylene catalytic hydrochlorination over powder catalyst prepared by pre-milling of K_2PtCl_4 salt

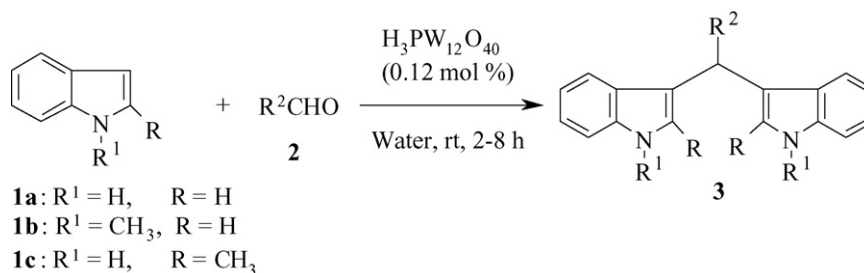


**Najmodin Azizi, Lalleh Torkian,
Mohammad R. Saidi**

Journal of Molecular Catalysis A: Chemical 275
(2007) 109

Highly efficient synthesis of bis(indolyl)methanes in water

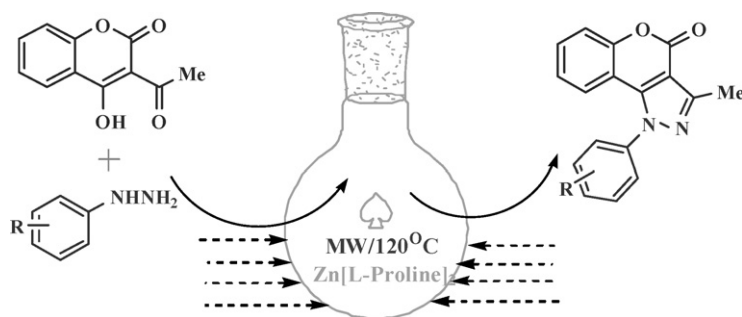
A simple, atom economy and highly efficient green protocol have been developed for synthesis of bis(indolyl)alkane by the reaction of indole derivatives with aldehydes and ketones in the presence of small amount of the heteropoly acids in water.



**Atul Manvar, Pravin Bochiya, Vijay Virsodia,
Rupesh Khunt, Anamik Shah**

Journal of Molecular Catalysis A: Chemical 275
(2007) 148

Microwave-assisted and $\text{Zn}[\text{L-proline}]_2$ catalyzed
tandem cyclization under solvent free conditions:
Rapid synthesis of chromeno[4,3-c]pyrazol-4-ones

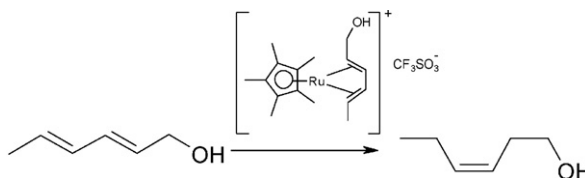


Eliška Leitmannová, Libor Červený

Journal of Molecular Catalysis A: Chemical 275
(2007) 153

Sorbic alcohol hydrogenation

Sorbic alcohol hydrogenation was carried out in homogeneous, two-phase and heterogeneous arrangements. The influence of reaction condition to the reaction rate and selectivity was observed. The highest selectivity was reached using ethylene glycol as a solvent and in two-phase arrangement where ethylene glycol was as catalytic phase used.

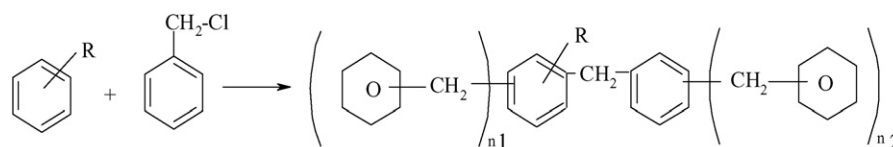


**H. Hentit, K. Bachari, M.S. Ouali, M. Womes,
B. Benaichouba, J.C. Jumas**

Journal of Molecular Catalysis A: Chemical 275
(2007) 158

Alkylation of benzene and other aromatics by benzyl
chloride over iron-containing aluminophosphate
molecular sieves

Alkylation of benzene and other aromatics by benzyl chloride to diphenylmethane over iron-containing aluminophosphate molecular sieves FAPO-5, and FAPO-11 has been investigated.



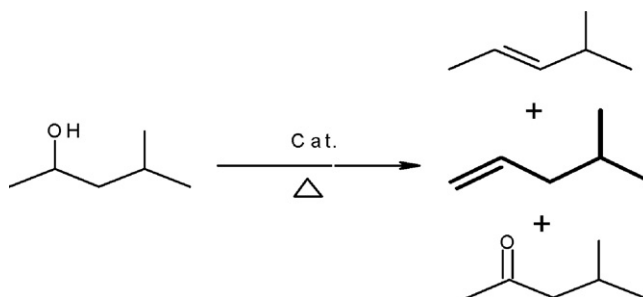
where n_1 and $n_2 = 0, 1$ or 2 , $n_1 + n_2 \leq 3$ and $R = \text{H}, \text{CH}_3, 2\text{CH}_3, \text{OCH}_3$.

**Benjaram M. Reddy, Gode Thrumurthulu,
Pranjal Saikia, Pankaj Bharali**

Journal of Molecular Catalysis A: Chemical 275
(2007) 167

Silica supported ceria and ceria-zirconia nanocomposite
oxides for selective dehydration of 4-
methylpentan-2-ol

The conversion of 4-methylpentan-2-ol to 4-methylpent-1-ene is improved to a greater extent after zirconia incorporation to $\text{CeO}_2/\text{SiO}_2$ catalyst. Characterization by XRD, Raman, HRTEM and BET surface area techniques reveal that SiO_2 as an inert support greatly enhances the surface area and stabilizes the nanocrystallites of the active oxides.

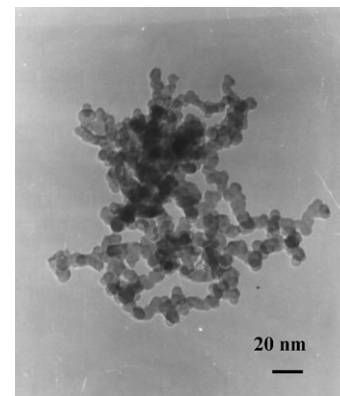


**Baskaran Rajesh, Natarajan Sasirekha,
Yu-Wen Chen**

Journal of Molecular Catalysis A: Chemical 275 (2007) 174

Physicochemical and catalytic properties of Fe–P ultrafine amorphous catalysts

Fe–P ultrafine amorphous alloy particles were prepared using chemical reduction method and characterized by XRD, TEM, N₂ sorption, electron diffraction, and XPS. The structure, morphology, and composition of Fe–P nanoalloys have been significantly influenced by the iron precursor and the type of solvent used.

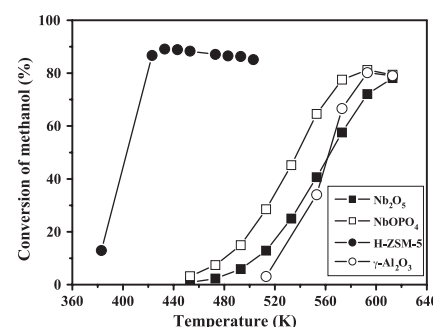


**Qing Sun, Yuchuan Fu, Haixia Yang,
Aline Auroux, Jianyi Shen**

Journal of Molecular Catalysis A: Chemical 275 (2007) 183

Dehydration of methanol to dimethyl ether over Nb₂O₅ and NbOPO₄ catalysts: Microcalorimetric and FT-IR studies

The probe molecules (NH₃, methanol, H₂O and dimethyl ether) used in this work were adsorbed more strongly on niobium phosphate (NbOPO₄) than on Nb₂O₅ because of the stronger acidity of NbOPO₄. In the reaction of methanol dehydration, although Nb₂O₅ and NbOPO₄ were not as active as a H-ZSM-5 zeolite, they exhibited 100% selectivity to the DME product and a good stability of the activity in the temperature range relevant to the reaction (453–573 K), without coke formation.

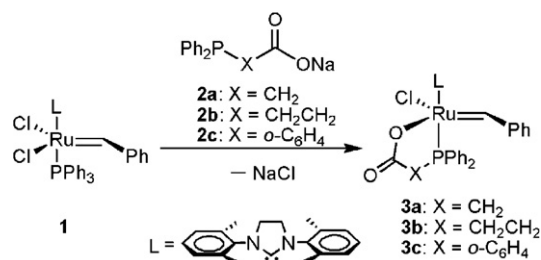


Wenzhen Zhang, Ping Liu, Kun Jin, Ren He

Journal of Molecular Catalysis A: Chemical 275 (2007) 194

Synthesis, characterization and catalytic activity for ring-closing metathesis of ruthenium benzylidene complexes bearing *N*-heterocyclic carbene and bidentate phosphino-carboxylate ligands

The synthesis, characterization, and ring-closing metathesis (RCM) activity of new ruthenium benzylidene complexes bearing *N*-heterocyclic carbene and chelating phosphino-carboxylate ligands are presented. Catalysts featuring a five-membered or rigid six-membered chelating ring proved to exhibit enhanced stability and high catalytic efficiency toward the RCM reactions of diethyl diallylmalonate and diallylmalononitrile, especially at increased temperature.

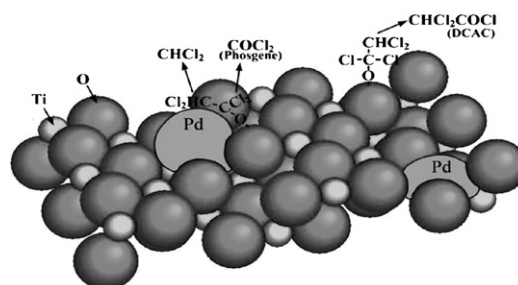


Hsin-Hung Ou, Shang-Lien Lo

Journal of Molecular Catalysis A: Chemical 275 (2007) 200

Effect of Pt/Pd-doped TiO₂ on the photocatalytic degradation of trichloroethylene

Compared with Pt species, Pd species are easy to intercalate into the lattice of TiO₂, producing a significantly negative effect on TCE degradation. Meanwhile, Pt had no influence on the selectivity toward DCAC and phosgene whereas the selectivity toward phosgene in the presence of Pd was enhanced owing to the easy cleavage of the C–C bond within hydrocarbon radicals.

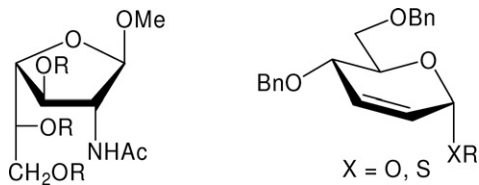


**Amélia P. Rauter, Tânia Almeida,
Nuno M. Xavier, Filipa Siopa, Ana I. Vicente,
Susana D. Lucas, João P. Marques,
Fernando Ramôa Ribeiro, Michel Guisnet,
Maria J. Ferreira**

Journal of Molecular Catalysis A: Chemical 275
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Acid zeolites as efficient catalysts for *O*- and *S*-glycosylation

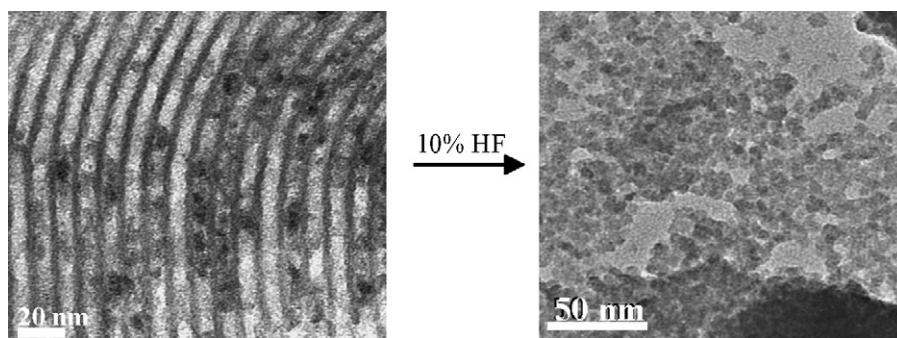
The zeolites HY, HBEA and HZSM-5 were investigated for glycosylation using two glycosyl donor types: *N*-acetylgalactosamine and a glycal. Regioselectivity for the furanoside form occurred in the Fischer glycosidation with all the catalysts. They also proved to be effective in transforming a benzyl-protected glycal into Ferrier products. Their efficiency depended mainly upon their Brønsted acid sites concentration and hydrophilicity for both reactions.



**P. Madhusudhan Rao, P. Goldberg-
Oppenheimer, S. Kababya, S. Vega,
M.V. Landau**

Journal of Molecular Catalysis A: Chemical 275
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Proton enriched high-surface-area cesium salt of phosphotungstic heteropolyacid with enhanced catalytic activity fabricated by nanocasting strategy

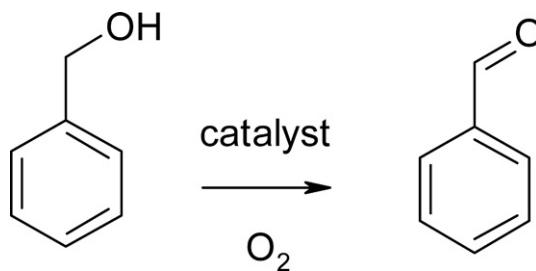


**Petro Lahtinen, Jahir Uddin Ahmad,
Elina Lankinen, Petri Pihko, Markku Leskelä,
Timo Repo**

Journal of Molecular Catalysis A: Chemical 275
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Organocatalyzed oxidation of alcohols to aldehydes with molecular oxygen

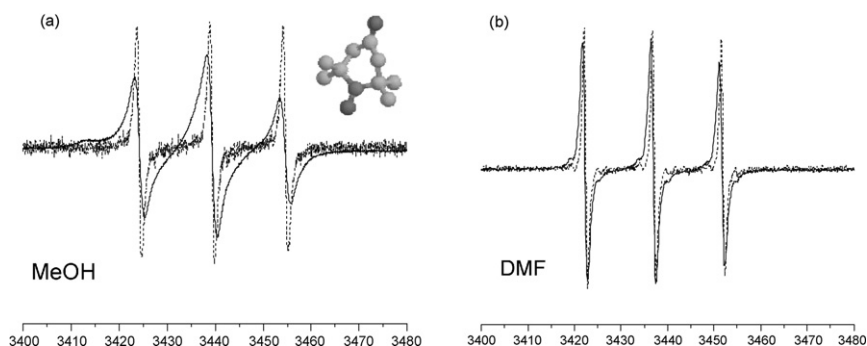
The first direct oxidation of benzylic alcohols to aldehydes with a 9,10-diaminophenanthrene organocatalyst using molecular oxygen as terminal oxidant is described. Transition metal ions increase the catalytic activity of the reaction significantly. Up to 80% conversion from alcohol to aldehyde were observed in organocatalytic reaction and complete conversions in the presence of iron and copper ions.



**C. Bolfa, A. Zoleo, A.S. Sassi, A.L. Maniero,
D. Pears, K. Jerabek, B. Corain**

Journal of Molecular Catalysis A: Chemical 275
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Cross-linked poly-vinyl polymers versus polyureas as designed supports for catalytically active M^0 nanoclusters. Part I. Nanometer scale structure of the polyurea support EnCat™ 40



Walt Partenheimer

Journal of Molecular Catalysis A: Chemical 275
(2007) 240

Comments on the paper “Low-bromide containing MC catalyst for the autoxidation of *para*-xylene” by B. Saha and J.H. Espenson [J. Mol. Catal. A 271 (2007) 1–5]

Rajendra Srivastava

Journal of Molecular Catalysis A: Chemical 275
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Corrigendum to “An efficient, eco-friendly process for aldol and Michael reactions of trimethylsilyl enolate over organic base-functionalized SBA-15 catalysts” [J. Mol. Catal. A: Chem. 264 (2007) 146–152]
