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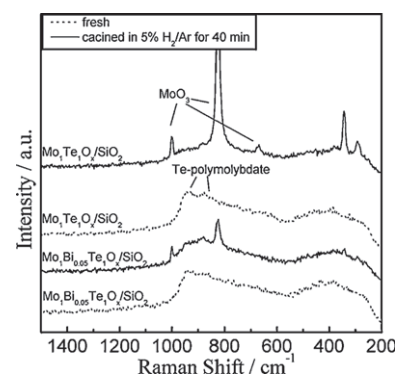
Articles

Yiming He, Ying Wu, Xiaodong Yi, Weizheng Weng, Huilin Wan

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Promotive effect of Bi component on propane partial oxidation over MoBiTeO_x/SiO₂ catalysts

The doping of Bi promoted the dispersal of MoO₃ and enhanced lattice oxygen diffusion, the catalytic performance of MoBiTeO_x/SiO₂ was thus increased.

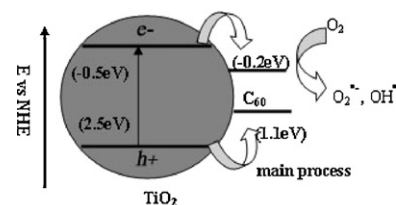


Liwu Zhang, Yajun Wang, Tongguang Xu, Shengbao Zhu, Yongfa Zhu

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Surface hybridization effect of C₆₀ molecules on TiO₂ and enhancement of the photocatalytic activity

Near-monolayer C₆₀ molecules was dispersed on the surface of TiO₂ particle and promoted the photoexcited electron–hole separation efficiency. The photocatalytic activity of TiO₂ increased about 4 times.

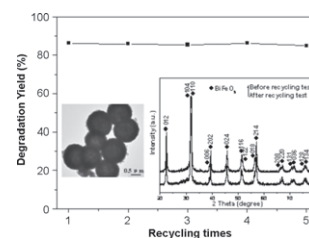


Yuning Huo, Yi Jin, Ya Zhang

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Citric acid assisted solvothermal synthesis of BiFeO₃ microspheres with high visible-light photocatalytic activity

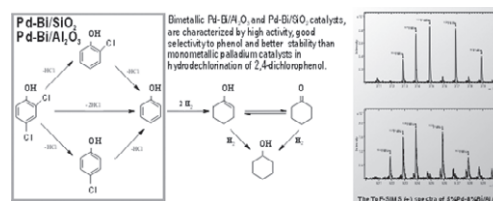
A novel BiFeO₃ photocatalyst in uniform microspheres synthesized by solvothermal process assisted with citric acid presents high visible-light photocatalytic activity together with durability for the degradation of methylene blue.



**Izabela Witońska, Aleksandra Królak,
Stanisław Karski**

Bi modified Pd/support (SiO_2 , Al_2O_3) catalysts for hydrodechlorination of 2,4-dichlorophenol

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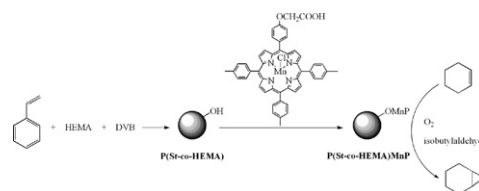


**Yuan-Jian Ye, Xian-Tai Zhou, Jin-Wang Huang,
Jin-Hua Cai, Wen-Hai Wu, Han-Cheng Yu,
Hong-Bin Ji, Liang-Nian Ji**

A new type of copolymer microspheres immobilized porphyrinatomanganese(III) was prepared and used to catalyze cyclohexene epoxidation in the presence of molecular oxygen and isobutylaldehyde.

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Styrene-hydroxyethyl methacrylate copolymer microsphere immobilized porphyrinatomanganese(III) as a mild, reusable and highly efficient catalyst for epoxidation of cyclohexene with molecular oxygen

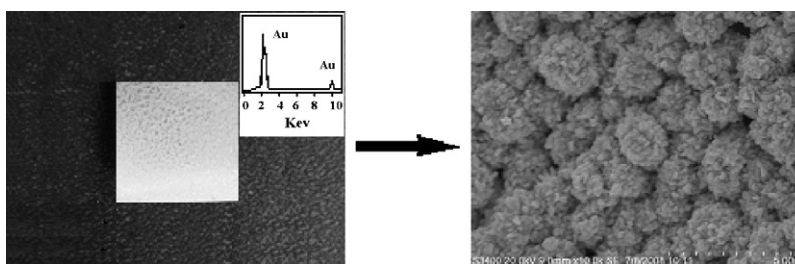


Youyi Xia, Hongping Xiao

Hierarchical gold quasi microspheres, which give high catalytic activity, have been synthesized and immobilized simultaneously on the surface of conducting polyaniline/polyacrylonitrile blend film via in situ reduction of AuCl_4^- .

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Hierarchical gold microspheres catalyst: Simultaneous synthesis and immobilization

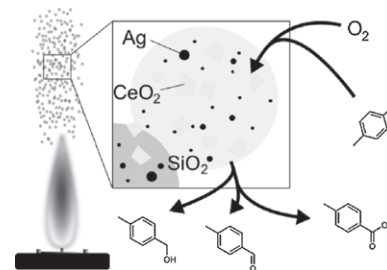


**Matthias J. Beier, Bjoern Schimmoeller,
Thomas W. Hansen, Jens E.T. Andersen,
Sotiris E. Pratsinis, Jan-Dierk Grunwaldt**

Flame synthesized and impregnated ceria-doped Ag/ SiO_2 catalysts effectively catalyze the side-chain oxidation of alkyl aromatic compounds such as toluene, *p*-xylene, ethylbenzene and cumene.

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Selective side-chain oxidation of alkyl aromatic compounds catalyzed by cerium modified silver catalysts

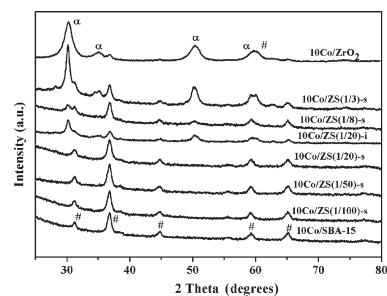


**Congliang Tao, Jinlin Li, Yuhua Zhang,
Kong Yong Liew**

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Effect of isomorphous substitution of zirconium on mesoporous silica as support for cobalt Fischer-Tropsch synthesis catalysts

For catalysts with Zr/Si atomic ratio lower than 1/20, the cobalt species were primarily in the form of spinel Co_3O_4 (peak #) on the catalysts. When the Zr/Si atomic ratio is higher than 1/20, the characteristic peaks (peak α) belonging to the tetragonal ZrO_2 phase are observed.

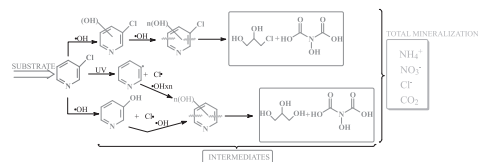


**Juan Carlos Colmenares, Maria A. Aramendia,
Alberto Marinas, Jose M. Marinas,
Francisco J. Urbano**

Journal of Molecular Catalysis A: Chemical 331 (2010) 58

Titania nano-photocatalysts synthesized by ultrasound and microwave methodologies: Application in depuration of water from 3-chloropyridine

The effect of aging the gel under ultrasonic (us) and microwave (mw) irradiation on the characteristics of the synthesized solids was studied. Sonication led to obtain more active photocatalyst.

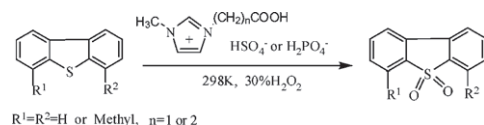


**Jianzhou Gui, Dan Liu, Zhaolin Sun, Daosheng Liu,
Dayoung Min, Busub Song, Xilai Peng**

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Deep oxidative desulfurization with task-specific ionic liquids: An experimental and computational study

Task-specific acidic ionic liquids, immiscible with fuel, halogen-free and containing $-\text{COOH}$ group, work as both catalyst and solvent for oxidative desulfurization in presence of 30% H_2O_2 at 298 K, and could be recycled.

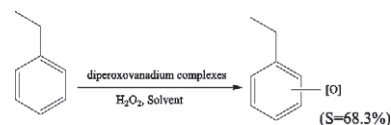


**Qjuyuan Liu, Liangfang Zhu, Li Li, Bin Guo,
Xiaoke Hu, Changwei Hu**

Journal of Molecular Catalysis A: Chemical 331 (2010) 71

Selective activation of C-H bonds on the ring of ethylbenzene catalyzed by several diperoxovanadate complexes

The bpV(bpy)- H_2O_2 -HOAc system is found to be effective for the preferential activation of the aromatic ring than the side-chain C-H bonds of ethylbenzene ($S = 68.3\%$).

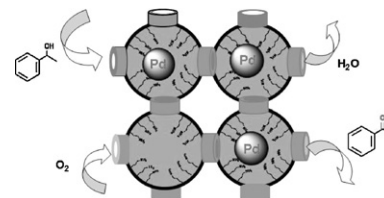


**Zhancheng Ma, Hengquan Yang, Yong Qin,
Yajuan Hao, Guang Li**

Journal of Molecular Catalysis A: Chemical 331 (2010) 78

Palladium nanoparticles confined in the nanocages of SBA-16: Enhanced recyclability for the aerobic oxidation of alcohols in water

Pd nanoparticles confined in the nanocages of SBA-16 show a significantly enhanced recyclability for the aerobic oxidation of alcohols in water under base-free conditions.

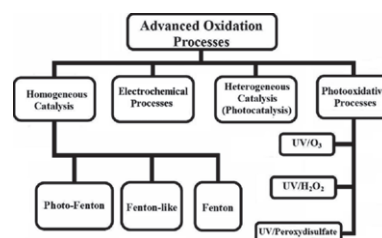


A.R. Khataee, M.B. Kasiri

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Artificial neural networks modeling of contaminated water treatment processes by homogeneous and heterogeneous nanocatalysis

This paper describes the application of artificial neural networks for modeling of water and wastewater treatment using various homogeneous and heterogeneous nanocatalytic processes.

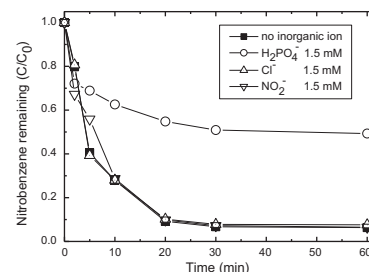


**Chavalit Ratanatamskul, Somboon Chintitanun,
Nalinrut Masomboon, Ming-Chun Lu**

Journal of Molecular Catalysis A: Chemical 331 (2010) 101

Inhibitory effect of inorganic ions on nitrobenzene oxidation by fluidized-bed Fenton process

This study investigated the effects of inorganic ions on nitrobenzene oxidation by fluidized-bed Fenton process. Inhibition effect of each inorganic ion was in the order: $\text{H}_2\text{PO}_4^- \gg \text{Cl}^- > \text{NO}_3^-$.

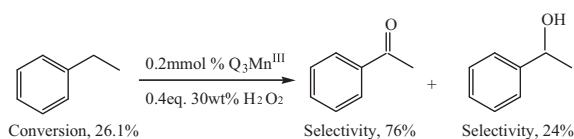


**Chunli Lu, Zaihui Fu, Yachun Liu, Fenglan Liu,
Youyu Wu, Jinwei Qin, Xiangling He, Dulin Yin**

Journal of Molecular Catalysis A: Chemical 331 (2010) 106

A moderate and efficient method for oxidation of ethylbenzene with hydrogen peroxide catalyzed by 8-quinolinolato manganese(III) complexes

Hexadentate 8-quinolinolato manganese(III) complexes ($\text{Q}_3\text{Mn}^{\text{III}}$), with ammonium acetate and acetic acid as additives, were found to be active and selective for the side chain oxidation of ethylbenzene with aqueous hydrogen peroxide in environmentally benign acetone-water media, affording acetophenone as a major product. Based on the UV-vis spectra, a free radical mechanism for the $\text{Q}_3\text{Mn}^{\text{III}}$ catalytic system was also proposed.

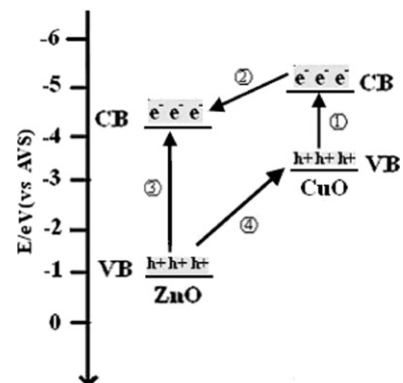


Shouqiang Wei, Yuye Chen, Yuyan Ma, Zhongcai Shao

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Fabrication of CuO/ZnO composite films with cathodic co-electrodeposition and their photocatalytic performance

This report presents cathodic co-electrodeposition of CuO/ZnO films and application for photoreduction of Cr(VI). Their improved photocatalytic activity can be partly attributed to a efficient interfacial separation of charges.

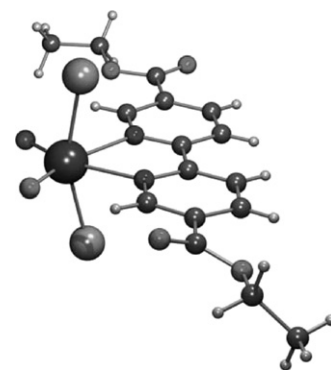


Alev Günyar, Daniel Betz, Markus Drees, Eberhardt Herdtweck, Fritz E. Kühn

Journal of Molecular Catalysis A: Chemical 331 (2010) 117

Highly soluble dichloro, dibromo and dimethyl dioxomolybdenum(VI)-bipyridine complexes as catalysts for the epoxidation of olefins

MoO₂X₂(Solv)₂ readily forms adducts with bipy-based ligands. If the bipy-ligands bear esters (C(O)OR) as functional groups good solubilities and high activities in olefin epoxidation are achieved.



Dong Yanmin, Chen Xingquan, Zhao Chunxiang, Zhao Tiansheng

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Synthesis of methyl propyl carbonate via gas-phase transesterification over TiO₂/Al₂O₃

A heterogeneous catalyst, TiO₂ supported on Al₂O₃ was used for the synthesis of methyl propyl carbonate (MPC) by the transesterification of DMC and propanol.



Qinqin Huang, Xiaomin Xue, Renxian Zhou

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Influence of interaction between CeO₂ and USY on the catalytic performance of CeO₂-USY catalysts for deep oxidation of 1,2-dichloroethane

The figure presents the H₂-TPR profiles of samples. It is noting that the strong interaction between CeO₂ and USY in CeO₂-USY-IM and CeO₂-USY-M1 evidently improves the mobility of oxygen species.

