

## Contents

### Vol. 252, Nos. 1–2

Thermoregulated <i>n</i> -heptane/poly(ethylene glycol) monoalkyl ether biphasic system and its application in PETPP/Ru complex catalyzed hydrogenation Y.-d. Lu, Y.-h. Wang and Z.-l. Jin (Dalian, China) . . . . .	1
Palladium-catalyzed oxidation of monoterpenes: Highly selective syntheses of allylic ethers from limonene J.A. Gonçalves, A.C. Bueno and E.V. Gusevskaya (Belo Horizonte, Brazil) . . . . .	5
Cellulose supported palladium(0) catalyst for Heck and Sonogashira coupling reactions K. Rajender Reddy, N.S. Kumar, P. Surendra Reddy, B. Sreedhar and M. Lakshmi Kantam (Hyderabad, India) . . . . .	12
A Fe-promoted Ni–P amorphous alloy catalyst (Ni–Fe–P) for liquid phase hydrogenation of <i>m</i> - and <i>p</i> -chloronitrobenzene X. Yan, J. Sun, Y. Wang and J. Yang (Hangzhou, PR China) . . . . .	17
Oxidation of alkanes by iodosylbenzene (PhIO) catalysed by supported Mn(III) porphyrins: Activity and mechanism J.R. Lindsay Smith (York, UK), Y. Iamamoto and F.S. Vinhado (Ribeirão Preto, Brazil) . . . . .	23
Hydrogenation of tetralin over mixed PtMo supported on zirconium doped mesoporous silica: Use of polynuclear organometallic precursors M.C. Carrión, B.R. Manzano, F.A. Jalón (Ciudad Real, Spain), P. Maireles-Torres, E. Rodríguez-Castellón and A. Jiménez-López (Málaga, Spain) . . . . .	31
The effect of iron oxides and oxalate on the photodegradation of 2-mercaptobenzothiazole C. Liu (Guangzhou, PR China and Beijing, PR China), F. Li (Guangzhou, PR China), X. Li (Guangzhou, PR China and Beijing, PR China), G. Zhang and Y. Kuang (Guangzhou, PR China) . . . . .	40
Synthesis, characterization and catalytic oxidation activity of zirconium doped K-OMS-2 type manganese oxide materials R. Jothiramingam, B. Viswanathan and T.K. Varadarajan (Chennai, India) . . . . .	49
Highly selective catalytic preparation of bis(4-oxo-benzo-2-cyclohexen-1-yl) amine from 1-naphthylamine oxidation over metalloporphyrin catalysts by molecular oxygen under air pressure and by hydrogen peroxide T. Chen (Guangdong, China), E. Kang (Jilin, China), G. Tan (Guangdong, China), S. Liu (Jilin, China), S. Zheng, K. Yang, S. Tong (Guangdong, China), C. Fang, F. Xiao (Jilin, China) and Y. Yan (Guangdong, China) . . . . .	56
Characteristic and electrocatalytic behavior of ruthenium Prussian blue analogue film in strongly acidic media A.S. Kumar and J.-M. Zen (Taichung, Taiwan) . . . . .	63
Synthesis and characterization of [HRu(CO)(CH <sub>3</sub> CN)(TPPTS) <sub>3</sub> ]BF <sub>4</sub> . Catalytic properties in the aqueous-biphasic hydroformylation of olefins P.J. Baricelli, K. Segovia, E. Lujano, M. Modroño-Alonso (Valencia, Venezuela), F. López-Linares and R.A. Sánchez-Delgado (Caracas, Venezuela) . . . . .	70
Synthesis of nanocrystalline zeolite beta in supercritical fluids, characterization and catalytic activity M.L. Kantam, B.P.C. Rao, B.M. Choudary, K.K. Rao, B. Sreedhar (Hyderabad, India), Y. Iwasawa and T. Sasaki (Bunkyo-Ku Tokyo, Japan) . . . . .	76
Effect of gas–liquid mass transfer on enantioselectivity in asymmetric hydrogenations N. Pestre, V. Meille and C. de Bellefon (Villeurbanne, France) . . . . .	85
A catalytic method for synthesis of $\gamma$ -butyrolactone, $\epsilon$ -caprolactone and 2-cumaranone in the presence of Preyssler's anion, [NaP <sub>5</sub> W <sub>30</sub> O <sub>110</sub> ] <sup>14-</sup> , as a green and reusable catalyst F.F. Bamoharram (Mashhad, Iran), M.M. Heravi (Tehran, Iran), M. Roshani (Mashhad, Iran), A. Gharib and M. Jahangir (Mashhad, Iran and Tehran, Iran) . . . . .	90
Manganese(III) porphyrins as catalysts for the oxidation of aromatic substrates: An insight into the reaction mechanism and the role of the cocatalyst P. Tagliatesta, D. Giovannetti, A. Leoni (Roma, Italy), M.G.P.M.S. Neves and J.A.S. Cavaleiro (Aveiro, Portugal) . . . . .	96
Adsorption and low-temperature oxidation of CO over iron oxides G. Šmit (Osijek, Croatia), S. Zrnčević (Zagreb, Croatia) and K. Lázár (Budapest, Hungary) . . . . .	103
Comparison of two different processes to synthesize biodiesel by waste cooking oil Y. Wang, S. Ou, P. Liu, F. Xue and S. Tang (Guangzhou, China) . . . . .	107
Detoxification of diluted azo-dyes at biocompatible pH with the oxone/Co <sup>2+</sup> reagent in dark and light processes Y. Zhiyong (Lausanne, Switzerland and Beijing, China), L. Kiwi-Minsker, A. Renken and J. Kiwi (Lausanne, Switzerland) . . . . .	113
A sonochemical route to visible-light-driven high-activity BiVO <sub>4</sub> photocatalyst L. Zhou, W. Wang, S. Liu, L. Zhang, H. Xu and W. Zhu (Shanghai, PR China) . . . . .	120
Acid site accessibility in sulfonated polystyrene acid catalysts: Calorimetric study of NH <sub>3</sub> adsorption from flowing gas stream P.F. Siril and D.R. Brown (Huddersfield, UK) . . . . .	125
Preparation and photocatalytic property of sunlight-driven photocatalyst Bi <sub>38</sub> ZnO <sub>58</sub> L.-R. Hou, C.-Z. Yuan and Y. Peng (Urumqi, PR China) . . . . .	132
<i>N</i> -Arylation of nitrogen heterocycles with aryl halides and arylboronic acids catalyzed by cellulose supported copper(0) K.R. Reddy, N.S. Kumar, B. Sreedhar and M.L. Kantam (Hyderabad, India) . . . . .	136

Comparative study of Au/Al <sub>2</sub> O <sub>3</sub> and Au/CeO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> catalysts M.A. Centeno (Sevilla, Spain), K. Hadjiivanov, Tz. Venkov, Hr. Klimev (Sofia, Bulgaria) and J.A. Odriozola (Sevilla, Spain) . . . . .	142
ZrOCl <sub>2</sub> ·8H <sub>2</sub> O as a highly efficient and the moisture tolerant Lewis acid catalyst for Michael addition of amines and indoles to $\alpha$ , $\beta$ -unsaturated ketones under solvent-free conditions H. Firouzabadi, N. Iranpoor, M. Jafarpour and A. Ghaderi (Shiraz, Iran) . . . . .	150
Hydrogen oxidation reaction on microelectrodes: Analysis of the contribution of the kinetic routes P.M. Quaino, J.L. Fernández, M.R. Gennero de Chialvo and A.C. Chialvo (Santa Fe, Argentina) . . . . .	156
A comparative study of CO adsorption and oxidation on Au/Fe <sub>2</sub> O <sub>3</sub> catalysts by FT-IR and in situ DRIFTS spectroscopies G. Šmit (Osijek, Croatia), N. Strukan (Zagreb, Croatia), M.W.J. Crajé (Delft, The Netherlands) and K. Lázár (Budapest, Hungary) . . . . .	163
Deactivation and reactivation of copper-containing pentatomic hydrotalcite in catalytic hydroxylation of phenol C.-X. Chen (SiChuan, PR China and Beijing, PR China), C.-H. Xu, L.-R. Feng, F.-L. Qiu and J.-S. Suo (SiChuan, PR China) . . . . .	171
Catalytic transfer hydrogenolysis of 2-phenyl-2-propanol over palladium supported on activated carbon X. Liu, G. Lu, Y. Guo, Y. Guo, Y. Wang and X. Wang (Shanghai, PR China) . . . . .	176
ESR study of the active oxygen species on hydroxyapatite activated by heat treatment H. Kanai, M. Lintuluoto (Kyoto, Japan), Y. Matsumura (Ikeda, Japan) and J.B. Moffat (Waterloo, Canada) . . . . .	181
The chemical reactivity of some terpenes investigated by alumina catalyzed epoxidation with hydrogen peroxide and by DFT calculations J.M. de S. e Silva, F.S. Vinhado, D. Mandelli, U. Schuchardt and R. Rinaldi (Campinas, Brazil) . . . . .	186
Nitration of <i>o</i> -xylene over rare earth cations exchanged zeolite- $\beta$ with nitric acid and acetic anhydride V.N. Sheemol, B. Tyagi and R.V. Jasra (Gujarat, India) . . . . .	194
NO <sub>2</sub> -catalyzed deep oxidation of methanol: Experimental and theoretical studies C.-X. Xiao, N. Yan, M. Zou, S.-C. Hou, Y. Kou, W. Liu and S. Zhang (Beijing, PR China) . . . . .	202
Rh(0) nanoparticles as catalyst precursors for the solventless hydroformylation of olefins A.J. Bruss (Porto Alegre, Brazil and Edo Carabobo, Venezuela), M.A. Gelesky, G. Machado and J. Dupont (Porto Alegre, Brazil) . . . . .	212
N-oxidation of pyridine carboxylic acids using hydrogen peroxide catalyzed by a green heteropolyacid catalyst: Preyssler's anion, [NaP <sub>5</sub> W <sub>30</sub> O <sub>110</sub> ] <sup>14-</sup> F.F. Bamoharram (Mashhad, Iran), M.M. Heravi (Tehran, Iran), M. Roshani and N. Tavakoli (Mashhad, Iran) . . . . .	219
Catalytic properties of silica supported titanium, vanadium and niobium oxide nanoparticles towards the oxidation of saturated and unsaturated hydrocarbons S. Martínez-Méndez, Y. Henríquez, O. Domínguez, L. D'Ornelas and H. Krentzien (Caracas, Venezuela) . . . . .	226
A rapid and high-yielding synthesis of thiazoles and aminothiazoles using ammonium-12-molybdophosphate B. Das, V. Saidu Reddy and R. Ramu (Hyderabad, India) . . . . .	235
Characterization of CaO-TiO <sub>2</sub> and V <sub>2</sub> O <sub>5</sub> /CaO-TiO <sub>2</sub> catalysts and their activity for cyclohexanol conversion B.M. Reddy, K.J. Ratnam and P. Saikia (Hyderabad, India) . . . . .	238
Palladium catalysed hydroxycarbonylation of 1-phenylethanol in molten salt media A. Lapidus, O. Eliseev, T. Bondarenko and N. Stepin (Moscow, Russian Federation) . . . . .	245
UV-visible absorption edge energy of heteropolyacids (HPAs) as a probe of catalytic performance of HPAs in the oxidative dehydrogenation of isobutyric acid H. Kim, M.H. Youn, J.C. Jung and I.K. Song (Seoul, South Korea) . . . . .	252
Volume contents . . . . .	256