

Contents

Vol. 218, No. 1

Organometallic and biomimetic catalysis

- Epoxidation of cyclooctene catalyzed by dioxomolybdenum(VI) complexes in ionic liquids
A.A. Valente (Aveiro, Portugal), Ž. Petrovski (Oeiras, Portugal), L.C. Branco (Caparica, Portugal), C.A.M. Afonso (Lisboa, Portugal),
M. Pillinger (Aveiro, Portugal), A.D. Lopes (Faro, Portugal), C.C. Romão (Oeiras, Portugal), C.D. Nunes and I.S. Gonçalves (Aveiro,
Portugal)..... 5

Ionic catalysis by acids, metals and bases

- A convenient ruthenium-catalyzed alkene epoxidation with hydrogen peroxide as oxidant
M. Klawonn, M.K. Tse, S. Bhor, C. Döbler and M. Beller (Rostock, Germany)..... 13
- Activator effects in metallocene-based alkene polymerisations: unexpectedly strong dependence of catalyst activity on trityl concentration
F. Song, R.D. Cannon, S.J. Lancaster and M. Bochmann (Norwich, UK)..... 21
- RuCl₂[S-BINAP]-catalyzed synthesis of aldehydes and ketones by dehydrogenation of alcohols
R.H. Meijer, G.B.W.L. Ligthart, J. Meuldijk, J.A.J.M. Vekemans and L.A. Hulshof (Eindhoven, The Netherlands)..... 29
- The reusable couple “PTSA/1-alkyl-3-methylimidazolium ionic liquids”: excellent reagents–catalysts for halogenation of fatty diols
H.-P. Nguyen, P. Kirilov, H. Matondo and M. Baboulène (Toulouse, France)..... 41
- Mannich-type reaction in solvent free condition using reusable polyaniline catalyst
S. Palaniappan, A. John, C.A. Amarnath and V.J. Rao (Hyderabad, India)..... 47

Molecular aspects of heterogeneous catalysis

- Development of protocols for the separation of Os catalysts from organic products in the catalytic dihydroxylation of olefins
A. Köckritz, M. Bartoszek (Berlin, Germany), C. Döbler, M. Beller (Rostock, Germany), W. Mägerlein and H.-C. Militzer (Leverkusen,
Germany)..... 55
- Liquid phase allylation of anisole using TPA/ZrO₂ catalyst
G.V. Shanbhag, B.M. Devassy and S.B. Halligudi (Pune, India)..... 67
- Electrocatalytic hydrogenation of carbonylic compounds using an electrode with platinum particles dispersed in films of poly-[allyl ether *p*-(2-
aminoethyl) phenol] co-polymerized with allyl phenyl ether
R.C.Z. Lofrano, J.M. Madurro (Ribeirão Preto, Brazil), L.M. Abrantes (Lisboa Codex, Portugal) and J.R. Romero (Ribeirão Preto, Brazil)..... 73
- Magnesium-containing mixed oxides as basic catalysts: base characterization by carbon dioxide TPD–MS and test reactions
M.A. Aramendía, V. Borau, C. Jiménez, A. Marinas, J.M. Marinas, J.R. Ruiz and F.J. Urbano (Córdoba, Spain)..... 81
- Degenerate propene metathesis on Mo-alkylidene centres of molybdena–alumina catalyst—a DFT study
J. Handzlik (Cracow, Poland)..... 91
- Liquid phase reaction of 2'-hydroxyacetophenone and benzaldehyde over ZSM-5 catalysts
S. Saravanamurugan, M. Palanichamy, B. Arabindoo and V. Murugesan (Chennai, India)..... 101
- Chiral ferrocene-based phosphine-imine and sulfur-imine ligands for palladium-catalyzed asymmetric allylic alkylation of cycloalkenyl esters
X. Hu, C. Bai, H. Dai, H. Chen and Z. Zheng (Dalian, PR China)..... 107

Vol. 218, No. 2

Organometallic and biomimetic catalysis

- Influence of electronic effect on catalytic activity of bis(imino)pyridyl Fe(II) and bis(imino)pyrimidyl Fe(II) complexes
T. Zhang, W.-H. Sun, T. Li and X. Yang (Beijing, China)..... 119
- Investigation of [Ni{Me₄BzO₂[14]aneN₄}]Cl₂ catalyzed selective hydroxylation of phenol to catechol by H₂O₂ in the homogeneous medium
H.S. Abbo (Haridwar, India and Roorkee, India), S.J.J. Titinchi, S. Chand, and R. Prasad (Roorkee, India)..... 125
- The effect of iron on the adsorption properties of CuMnZrO₂ catalysts studied by temperature-programmed desorption and FTIR spectroscopy
R. Xu, Z.-y. Ma, C. Yang, W. Wei, W.-h. Li and Y.-h. Sun (Taiyuan, PR China)..... 133

Ionic catalysis by acids, metals and bases

Catalytic asymmetric epoxidation of non-functionalised alkenes using polymeric Mn(III) Salen as catalysts and NaOCl as oxidant R.I. Kureshy, N.-u.H. Khan, S.H.R. Abdi, S. Singh, I. Ahmed and R.V. Jasra (Bhavnagar, India)	141
Wells–Dawson type molybdovanadophosphoric heteropolyacids catalyzed Prins cyclization of alkenes with paraformaldehyde under mild conditions—a facile and efficient method to 1,3-dioxane derivatives G. Li, Y. Gu, Y. Ding, H. Zhang, J. Wang, Q. Gao, L. Yan and J. Suo (Lanzhou, China).	147
A new efficient chiral iridium catalyst for asymmetric transfer hydrogenation of ketones Y.-Y. Li, H. Zhang, J.-S. Chen, X.-L. Liao, Z.-R. Dong and J.-X. Gao (Xiamen, China)	153
Efficient Darzens condensation reactions of aromatic aldehydes catalyzed by polystyrene-supported phase-transfer catalyst Z. Wang (Shandong, PR China and Gansu, PR China), L. Xu, Z. Mu, C. Xia and H. Wang (Gansu, PR China)	157
Selective epoxidation of cyclohexene to cyclohexene oxide catalyzed by Keggin-type heteropoly compounds using anhydrous urea–hydrogen peroxide as oxidizing reagent and acetonitrile as the solvent Y. Ding, Q. Gao, G. Li, H. Zhang, J. Wang, L. Yan and J. Suo (Lanzhou, China)	161
Oxidation of saturated hydrocarbons with peroxyacetic acid catalyzed by vanadium complexes L. Gonzalez Cuervo (Neuchâtel, Switzerland), Y.N. Kozlov (Moscow, Russia), G. Süß-Fink (Neuchâtel, Switzerland) and G.B. Shul'pin (Moscow, Russia).	171

Molecular aspects of heterogeneous catalysis

Isobutane oxydehydrogenation on Al ₂ O ₃ -supported transition and rare-earth metal oxides S.M. Al-Zahrani (Riyadh, Saudi Arabia), N.O. Elbashir (Auburn, AL, USA), A.E. Abasaheed and M. Abdulwahed (Riyadh, Saudi Arabia)	179
Catalytic activities of CuO/TiO ₂ and CuO-ZrO ₂ /TiO ₂ in NO + CO reaction J. Xiaoyuan, D. Guanghui, L. Liping, C. Yingxu and Z. Xiaoming (Hangzhou, PR China)	187
Zeolite-promoted selective mono- <i>N</i> -methylation of aniline with dimethyl carbonate T. Esakkidurai and K. Pitchumani (Madurai, India).	197
V-MCM-41 as selective catalyst for epoxidation of olefins and <i>trans</i> -2-hexene-1-ol F. Farzaneh, E. Zamanifar (Tehran, Iran) and C.D. Williams (Wolverhampton, UK)	203
Hydroformylation by rhodium catalysts supported on oligomeric arylamides G. Cum, P. Famulari (Messina, Italy), M. Marchetti and B. Sechi (Li Punti–Sassari, Italy)	211
Density functional theory studies of acetylene hydrogenation on clean, vinylidene- and ethylidyne-covered Pt(1 1 1) surfaces S.G. Podkolzin, R. Alcalá and J.A. Dumesic (Madison, WI, USA)	217
Ni–Pt loaded silicoaluminophosphate molecular sieves for hydroisomerisation of <i>n</i> -heptane I. Eswaramoorthi and N. Lingappan (Chennai, India)	229
Alkylation of biphenyl with <i>t</i> -butylalcohol over modified Y zeolites R. Anand, S.S. Khaire (Pune, India), R. Maheswari (Chennai, India) and K.U. Gore (Nanded, India)	241
Influence of composition of heteropolyphosphatotungstate catalyst on epoxidation of propylene J. Li, S. Gao, M. Li, R. Zhang and Z. Xi (Dalian, China).	247
Characterization and reactivity of silica-supported bimetallic molybdenum and stannic oxides for the transesterification of dimethyl oxalate with phenol X. Ma, J. Gong, S. Wang, F. He, X. Yang, G. Wang and G. Xu (Tianjin, China)	253
Author Index	261
Subject Index	265
Volume contents	271