

Contents

Vol. 171, Nos. 1–2

Review

Chemical and metal complex catalysis

- Radical and non-radical chemistry of the Fenton-like systems in the presence of organic substrates
F. Gozzo (Milano, Italy) 1

Articles

Chemical and metal complex catalysis

- Studies on new palladium(II) catalyst system for copolymerization of CO with ethylene
H.-K. Luo (Beijing, People's Republic of China) and D.-G. Li (Lanzhou, People's Republic of China) 23
- Radical-initiated oxygenation of flavonols by dioxygen
J. Kaizer and G. Speier (Veszprém, Hungary) 33
- Highly efficient cascade-oxygen-transfer from H₂O₂ to olefins mediated by halogenated carbonyl compounds and metalloporphyrins
S. Campestrini and U. Tonellato (Padova, Italy) 37
- Multigram scale cobalt catalyzed photochemical methoxycarbonylation of alkenes
V. Dragojlovic, D.B. Gao and Y.L. Chow (Burnaby, BC, Canada) 43
- Spin effects in activation of hydrocarbons. The role of triplet states in catalysis
B.F. Minaev (Stockholm, Sweden) 53
- ⁵¹V and ¹³C NMR spectroscopic study of the peroxovanadium intermediates in vanadium catalyzed enantioselective oxidation of sulfides
K.P. Bryliakov, N.N. Karpyshev, S.A. Fominsky, A.G. Tolstikov and E.P. Talsi (Novosibirsk, Russia) 73
- Alkylations of benzene in room temperature ionic liquids modified with HCl
K. Qiao and Y. Deng (Lanzhou, China) 81
- Thermoregulated phase transfer ligands and catalysis XIV. Synthesis of *N,N*-dipolyoxyethylene-substituted-4-(diphenylphosphino) benzenesulfonamide (PEO-DPPSA) and the catalytic activity of its rhodium complex in hydroformylation of 1-decene
J. Jiang, Y. Wang, C. Liu, Q. Xiao and Z. Jin (Dalian, PR China) 85
- Iridium–formic acid based system for hydroxycarbonylation without CO gas
J.-P. Simonato, T. Walter and P. Métivier (Saint Fons, France) 91
- Effect of substituents on the Mn(III)Salen catalyzed oxidation of styrene
A. Zsigmond, A. Horváth and F. Notheisz (Szeged, Hungary) 95

Molecular aspects of heterogeneous catalysis

- The adsorption of a series of aromatics in ITQ-1: grand canonical Monte Carlo simulations
T. Hou, L. Zhu and X. Xu (Beijing, PR China) 103
- Cytochrome P-450 model reactions: a kinetic study of epoxidation of alkenes by iron phthalocyanine
N. Safari and F. Bahadoran (Tehran, Iran) 115
- A combined theoretical and experimental study of the effects of residual chlorine on the behavior of Pd/γ-Al₂O₃ catalysts for methane oxidation
G. Tonetto, M.L. Ferreira and D.E. Damiani (Bahía Blanca-R, Argentina) 123

| | |
|--|-----|
| A combined kinetic and mechanistic modelling of the catalytic degradation of polymers Y.-H. Lin (Kaohsiung, Taiwan), W.-H. Hwu, M.-D. Ger, T.-F. Yeh (Taoyuan, Taiwan) and J. Dwyer (Manchester, UK) . . . | 143 |
| Liquid-phase heterogeneous catalytic transfer hydrogenation of citral on basic catalysts M.A. Aramendía, V. Borau, C. Jiménez, J.M. Marinas, J.R. Ruiz and F.J. Urbano (Córdoba, Spain) | 153 |
| Synthesis and catalytic activity of Fe(III) anchored to a polystyrene–Schiff base support R. Antony, G.L. Tembe, M. Ravindranathan (Vadodara, India) and R.N. Ram (Baroda, India) | 159 |
| Strong effect of transitional metals on the sulfur resistance of Pd/HY-Al ₂ O ₃ catalysts for aromatic hydrogenation L. Hu, G. Xia, L. Qu (Beijing, China), C. Li, Q. Xin (Dalian, China) and D. Li (Beijing, China) | 169 |
| The influence of Fe on the dispersion, electronic state, sulfur-resistance and catalysis of platinum supported on KL zeolite J. Zheng, T. Schmauke, E. Roduner (Stuttgart, Germany), J.L. Dong and Q.H. Xu (Nanjing, PR China) | 181 |
| Sol–gel entrapped Rh ₂ Co ₂ (CO) ₁₂ : a catalyst precursor for efficient arene hydrogenation F. Gelman, D. Avnir (Jerusalem, Israel), H. Schumann (Berlin, Germany) and J. Blum (Jerusalem, Israel) | 191 |
| Modified W/HZSM-5 catalysts: structure and catalytic properties A. de Lucas, J.L. Valverde, L. Rodríguez, P. Sanchez and M.T. Garcia (Ciudad Real, Spain) | 195 |
| Transient isotopic study of methanol oxidation on unsupported V ₂ O ₅ . Mechanism of methylal formation J.-M. Tatibouët (Poitiers, France) and H. Laumon-Pernot (Paris, France) | 205 |
| Halo-oxide ACuO _{2-δ} X (A = Sr _{0.63} Ca _{0.27} , X = F, Cl) catalysts active and durable for ethane selective oxidation to ethene H.X. Dai, H. He (Hong Kong, PR China and Beijing, PR China), C.F. Ng and C.T. Au (Hong Kong, PR China) | 217 |
| Synthesis, characterization and catalytic activity of actinide Th-MCM-41 and U-MCM-41 hexagonal packed mesoporous molecular sieves R. Tismaneanu, B. Ray, R. Khalfin, R. Semiat and M.S. Eisen (Haifa, Israel) | 229 |
| Effects of air pollutants on the cerium exchanged high silica zeolite catalyst: a Fourier transform infrared study C. Kladis, S.K. Bhargava (Melbourne, Australia), K. Fogar (Noble Park, Australia) and D.B. Akolekar (Melbourne, Australia) | 243 |
| Catalytic activity and stability of a chromium containing silicate in liquid phase cyclohexane oxidation R.S. da Cruz (Campinas, Brazil and Ilhéus, Brazil), J.M. de Souza e Silva, U. Arnold and U. Schuchardt (Campinas, Brazil) | 251 |
| Announcements | 259 |
| Author Index | 263 |
| Subject Index | 265 |
| Volume contents | 271 |