

Contents

Vol. 172, Nos. 1–2

Articles

Biomimetic catalysis

- Photoinduced hydrogen evolution with cytochrome *c*₃-viologen-ruthenium(II) triad complex and hydrogenase
N. Asakura, T. Hiraishi, T. Kamachi and I. Okura (Yokohama, Japan) 1

Chemical and metal complex catalysis

- Autocatalysis in the sodium perborate oxidation of anilines in acetic acid–ethylene glycol
C. Karunakaran and P.N. Palanisamy (Annamalainagar, India) 9
- The oligomer of 1,6-naphthalenediol as a support in oxidative reactions of *cis*-bisglycinato copper(II) and hydrogenperoxide
J.G. Handique and J.B. Baruah (Guwahati, India) 19
- Photooxidation of propylene with oxygen over TiO₂–SiO₂ composite oxides prepared by rapid hydrolysis
H. Kanai, M. Shono (Kyoto, Japan), K. Hamada (Kobe, Japan) and S. Imamura (Kyoto, Japan) 25
- Oxidation of unsaturated monoterpenes with hydrogen peroxide catalysed by manganese(III) porphyrin complexes
R.R.L. Martins, M.G.P.M.S. Neves, A.J.D. Silvestre, M.M.Q. Simões, A.M.S. Silva, A.C. Tomé, J.A.S. Cavaleiro (Aveiro, Portugal), P. Tagliatesta and C. Crestini (Rome, Italy) 33
- Synthesis and characterization of unbridged metallocene dichloride complexes with two differently mono-substituted indenyl ligands and their application as catalysts for the polymerization of ethene and propene
R. Schmidt, M. Deppner and H.G. Alt (Bayreuth, Germany) 43
- Synchrotron XAS studies on a half-sandwich titanium-based polyethylene catalyst
E.P. Wasserman, A.D. Westwood, Z. Yu, J.H. Oskam and S.L. Duenas (Bound Brook, NJ, USA) 67
- Hydrogenation and isomerization of 1-hexene with Ru₃(CO)₁₂ and Ru₃(CO)₉(PPh₃)₃
K. Dallmann and R. Buffon (Campinas, Brazil) 81
- Ziegler–Natta MgCl₂-supported catalysts: relationship between titanium oxidation states distribution and activity in olefin polymerization
D. Fregonese, S. Mortara and S. Bresadola (Padova, Italy) 89
- A theoretical and experimental study about the effect of different organosilanes on immobilization of (*n*BuCp)₂ZrCl₂ on pre-treated SiO₂
M.L. Ferreira (Bahía Blanca, Argentina), P.P. Greco, J.H.Z. dos Santos (Porto Alegre, Brazil) and D.E. Damiani (Bahía Blanca, Argentina) 97
- Kinetics and mechanism of the stoichiometric oxygenation of the ionic zinc(II) flavonolate complex [Zn(flac)(idpa)]ClO₄ (flac = flavonolate; idpa = 3,3'-iminobis(*N,N*-dimethylpropylamine))
L. Barhács, J. Kaizer and G. Speier (Veszprém, Hungary) 117
- Influence of an additional gas on the hydroformylation of cyclohexene with Co₂(CO)₈(PBu₃)₂
A. Salvini, P. Frediani, S. Maggini and F. Piacenti (Firenze, Italy) 127
- Oxidation of benzyl alcohol under a synergism of phase transfer catalysis and heteropolyacids
G.D. Yadav and C.K. Mistry (Mumbai, India) 135
- Carbonylation of 1-arylethanols using homogeneous Pd complex catalysts
A. Seayad, S. Jayasree and R.V. Chaudhari (Pune, India) 151
- Reaction of *N*-alkyl-2-benzothiazolesulphenamide with acetic anhydride in the presence of acids. I. Technological aspects
M. Štolcová, A. Kaszonyi and M. Hronec (Bratislava, Slovak Republic) 165
- Reaction of *N*-*tert*-butyl-2-benzothiazolesulphenamide with acetic anhydride in the presence of acids. II. Spectral studies

M. Štolcová, A. Kaszonyi, M. Hronec, T. Liptaj, A. Staško and J. Leško (Bratislava, Slovak Republic)	175
Molecular aspects of heterogeneous catalysis	
Liquid phase selective oxidation of alcohols over modified molecular sieves N. Srinivas, V. Radha Rani, M. Radha Kishan, S.J. Kulkarni and K.V. Raghavan (Hyderabad, India)	187
A molecular mechanism for Fischer–Tropsch catalysis M.K. Carter (Los Gatos, CA, USA)	193
Characterisation of catalysts and their precursors prepared from supported palladium phosphine complexes G.R. Cairns, R.J. Cross and D. Stirling (Glasgow, UK)	207
Epoxidation of cyclohexene on Ti/SiO ₂ catalysts prepared by chemical grafting TiCl ₄ on deboronated silica xerogel S. Wang, Q. Yang, Z. Wu, M. Li, J. Lu, Z. Tan and C. Li (Dalian, PR China)	219
Investigation of the physico-chemical state and aggregation mechanism of surface Cr species on a Phillips CrO _x /SiO ₂ catalyst by XPS and EPMA B. Liu and M. Terano (Ishikawa, Japan)	227
Characterization of the balance between metallic and acidic properties of Cu–MFI catalysts by using the transformation of haloaromatic compounds: effect of copper loading and Si/Al ratio S. Vol, L. Vivier and G. Pérot (Poitiers, France)	241
Adsorption and photocatalytic decomposition of odor compounds containing sulfur using TiO ₂ /SiO ₂ bead H. Nishikawa and Y. Takahara (Gifu, Japan)	247
Quantum chemical analysis of coordination of nitroxide probes to acid sites on the surfaces of oxides A.M. Tokmachev, N.D. Chuvylkin, A.V. Fionov and E.V. Lunina (Moscow, Russia)	253
In situ studies of atomic, nano- and macroscale order during VOHPO ₄ ·0.5H ₂ O transformation to (VO) ₂ P ₂ O ₇ V.V. Guliants, S.A. Holmes (Cincinnati, OH, USA), J.B. Benziger, P. Heaney, D. Yates (Princeton, NJ, USA) and I.E. Wachs (Bethlehem, PA, USA)	265
Letters	
Note to the Editor. The enantioselective hydrogenation of 1-phenyl ethanol and of ketones using Pt and Pd supported on natural polymers: work of the group of Ying-Yang Jiang, Institute of Chemistry, Chinese Academy of Science, China M. Studer and H.-U. Blaser (Basel, Switzerland)	277
Author Index	279
Subject Index	281
Volume contents	287