

## Contents

### Vol. 177, No. 1

#### SPECIAL ISSUE:

Catalysis inside Functional Synthetic Resins: The Issue of Catalyst Accessibility and Stability

Guest Editors: B. Corain

K. Jeřábek

M. Králik

Foreword .....	1
Catalysis and polymer networks — the role of morphology and molecular accessibility B. Corain, M. Zecca (Padova, Italy) and K. Jeřábek (Suchdol, Czech Republic) .....	3
<b>Part A: Acid-Base Catalysis</b>	
Improvement of active site accessibility of resin catalysts by polymer/carrier composites: development and characterisation of monolithic catalytic chromatographic reactors U. Kunz, C. Altwicker, U. Limbeck and U. Hoffmann (Clausthal-Zellerfeld, Germany) .....	21
Acidic and basic ion exchange resins for industrial applications M. Di Girolamo and M. Marchionna (Milan, Italy) .....	33
Interaction between the reaction medium and an ion-exchange resin catalyst in the etherification of isoamylenes L.K. Rihko-Struckmann, P.V. Latostenmaa and A.O.I. Krause (Hut, Finland) .....	41
<b>Part B: Catalysis by Immobilised Metal Complexes</b>	
Polymethacrylate and polystyrene-based resin-supported Pt catalysts in room temperature, solvent-less, oct-1-ene hydrosilylations using trichlorosilane and methylchlorosilane R. Drake (Glamorgan, UK), R. Dunn, D.C. Sherrington and S.J. Thomson (Glasgow, UK) .....	49
Polymeric metal complex catalyzed enantioselective epoxidation of olefins P.K. Dhal (Waltham, MA, USA), B.B. De and S. Sivaram (Pune, India) .....	71
Rhodium(I) complex catalysts immobilized on polyamides having a pyridine moiety. Effect of the polymer structure Z.M. Michalska and K. Strzelec (Łódź, Poland) .....	89
Nafion: an excellent support for metal-complex catalysts A.J. Seen (Launceston, Australia) .....	105
<b>Part C: Catalysis by Immobilised Metal Particles</b>	
Catalysis by metal nanoparticles supported on functional organic polymers M. Králik (Bratislava, Slovak Republic) and A. Biffis (Padova, Italy) .....	113
Effect of additional metal ions on catalyses of polymer-stabilized metal nanoclusters N. Toshima, Y. Shiraishi (Yamaguchi, Japan) and T. Teranishi (Ishikawa, Japan) .....	139
2-Ethyl-9,10-anthraquinone hydrogenation over Pd/polymers. Effect of polymers–Pd(II) chlorocomplexes interactions A. Drelinkiewicz and M. Hasik (Kraków, Poland) .....	149
2-Propen-1-ol hydrogenation and isomerisation on polymer-palladium complexes — effect of polymer matrix A.K. Zharmagambetova, E.E. Ergozhin, Yu.L. Sheludyakov, S.G. Mukhamedzhanova, I.A. Kurmanbayeva, B.A. Selenova and B.A. Utkelov (Almaty, Kazakhstan) .....	165
Announcement .....	171

**Vol. 177, No. 2****Articles*****Chemical and metal complex catalysis***

- Ring closing metathesis in water with or without surfactants in the presence of  $\text{RuCl}_2(\text{PPh}_3)_2(\text{CHPh})$   
 K. Joju Davis and D. Sinou (Villeurbanne, France) ..... 173
- Immobilization of metal chloride complexes of titanium, zirconium, and hafnium on a cyclopentadienyl surface of silica for ethylene polymerization  
 A.-M. Uusitalo, T.T. Pakkanen (Joensuu, Finland) and E.I. Iskola (VTT, Finland)..... 179
- In situ UV–VIS studies on late-transition metal catalysts for ethylene polymerization  
 H.-K. Luo, Z.-H. Yang, B.-Q. Mao, D.-S. Yu and R.-G. Tang (Beijing, China) ..... 195

***Molecular aspects of heterogeneous catalysis***

- Effect of thiophene modification on supported metal catalysts for the hydrogenation of but-2-enal  
 J.E. Bailie and G.J. Hutchings (Cardiff, UK) ..... 209
- Kinetic study on the selective catalytic oxidation of 2-propanol to acetone over nickel foils  
 A.H. Ali and F. Zaera (Riverside, CA, USA) ..... 215
- Oxygen exchange at Mo/V mixed oxides. A transient and  $^{18}\text{O}$  isotope study under technical conditions  
 K. Krauß, A. Drochner, M. Fehlings, J. Kunert and H. Vogel (Darmstadt, Germany) ..... 237
- Beckmann rearrangement of cyclohexanone oxime over mesoporous Si-MCM-41 and Al-MCM-41 molecular sieves  
 K. Chaudhari, R. Bal, A.J. Chandwadkar and S. Sivasanker (Pune, India) ..... 247
- Preparation of carbon/TiO<sub>2</sub> microsphere composites from cellulose/TiO<sub>2</sub> microsphere composites and their evaluation  
 S. Nagaoka (Kumamoto, Japan), Y. Hamasaki (Kumamoto, Japan), S.-i. Ishihara (Yatsushiro, Japan), M. Nagata (Kumamoto, Japan), K. Iio, C. Nagasawa (Tsukuba, Japan) and H. Ihara (Kumamoto, Japan) ..... 255
- Effect of copper(II) on the photocatalytic degradation of sucrose  
 D. Beydoun, H. Tse, R. Amal (Sydney, Australia), G. Low (Lidcombe, Australia) and S. McEvoy (Lucas Heights, Australia) 265
- On the acylation reactions of anisole using  $\alpha,\beta$ -unsaturated organic acids as acylating agents and solid acids as catalysts: a mechanistic overview  
 C. Castro, A. Corma and J. Primo (Valencia, Spain) ..... 273
- Acetone transformation over Pt/H[Al]ZSM5 and Pt/H[Ga]ZSM5 catalysts. Evidences of a Pt–Ga interaction  
 L. Melo, A. Llanos, M. Mediavilla and D. Moronta (Caracas, Venezuela) ..... 281
- Periodic density functional study of superacidity of sulfated zirconia  
 T. Kanougi, T. Atoguchi and S. Yao (Ichihara, Japan) ..... 289
- Heterogeneous asymmetric reactions. Part 25. On the pretreatment and prehydrogenation of Pt-alumina catalyst in the hydrogenation of ethyl pyruvate  
 M. Bartók, G. Szöllösi, K. Balázsik and T. Bartók (Szeged, Hungary) ..... 299

**Letter*****Chemical and metal complex catalysis***

- Letter to the Editor — The enantioselective hydrogenation of 1-phenyl ethanol and of ketones using Pt and Pd supported on natural polymers  
 Y.-Y. Jiang (Beijing, China), M. Studer and H.-U. Blaser (Basel, Switzerland) ..... 307
- Announcement ..... 309
- Guide for Authors ..... 311
- Author Index ..... 315
- Subject Index ..... 317
- Volume contents ..... 323