

Contents

Preface	1
Synthesis of SBA-15 with different pore sizes and the utilization as supports of high loading of cobalt catalysts Y. Wang, M. Noguchi, Y. Takahashi and Y. Ohtsuka	3
Comparison of disordered mesoporous aluminosilicates with highly ordered Al-MCM-41 on stability, acidity and catalytic activity D. Zhao, C. Nie, Y. Zhou, S. Xia, L. Huang and Q. Li	11
Comparative study of nanocrystalline zirconia prepared by precipitation and sol–gel methods J.A. Wang, M.A. Valenzuela, J. Salmones, A. Vázquez, A. García-Ruiz and X. Bokhimi	21
Physicochemical characteristics of pillared interlayered clays H.J. Chae, I.-S. Nam, S.W. Ham and S.B. Hong	31
Platinum catalysts supported on Al-pillared clays. Application to the catalytic combustion of acetone and methyl-ethyl-ketone A. Gil, M.A. Vicente, J.-F. Lambert and L.M. Gandía	41
Catalytic activity of CeO ₂ –ZrO ₂ mixed oxide catalysts prepared via sol–gel technique: CO oxidation M. Thammachart, V. Meeyoo, T. Risksomboon and S. Osuwan	53
Nanosized metal oxides in the mesopores of MCM-41 and MCM-48 silicates S.E. Dapurkar, S.K. Badamali and P. Selvam	63
Coexistence of paramagnetic and superparamagnetic Fe(III) in mesoporous MCM-41 silicates P. Selvam, S.E. Dapurkar, S.K. Badamali, M. Murugasan and H. Kuwano	69
Structure and reactivity of ultrafine Ce–Mo oxide particles W. Kuang, Y. Fan and Y. Chen	75
Synthesis, characterization, and catalytic properties of Ti-containing mesoporous molecular sieves prepared using a fluorosilicon compound W.-S. Ahn, N.-K. Kim and S.-Y. Jeong	83
Preparation of titania-based catalysts for formaldehyde photocatalytic oxidation from TiCl ₄ by the sol–gel method Y. Zhang, G. Xiong, N. Yao, W. Yang and X. Fu	89
Preparation of novel uniform mesoporous alumina catalysts by the sol–gel method N. Yao, G. Xiong, Y. Zhang, M. He and W. Yang	97
NH ₃ desorption and decomposition behavior on microporous hollandite-type hydrous manganese oxide Z.-M. Wang, S. Tezuka and H. Kanoh	111
Stabilized MCM-48/VO _x catalysts: synthesis, characterization and catalytic activity P. Van Der Voort, M. Baltes and E.F. Vansant	119
Copper/MCM-41 as catalyst for photochemically enhanced oxidation of phenol by hydrogen peroxide X. Hu, F.L.Y. Lam, L.M. Cheung, K.F. Chan, X.S. Zhao and G.Q. Lu	129
Structure characterization of the Co and Ni catalysts for carbon dioxide reforming of methane R.G. Ding and Z.F. Yan	135

Optimization of nanopores and acidity of USY zeolite by citric modification X.M. Liu and Z.F. Yan	145
In situ FT-IR study of CO and H ₂ adsorption on a Pt/Al ₂ O ₃ catalyst D. Liu, G.-H. Que, Z.-X. Wang and Z.-F. Yan	155
Selective catalytic reduction of nitric oxide over Cu and Co ion-exchanged ZSM-5 zeolite: the effect of SiO ₂ /Al ₂ O ₃ ratio and cation loading F. Seyedejn-Azad and D.-k. Zhang	161
Synthesis of anatase TiO ₂ supported on porous solids by chemical vapor deposition Z. Ding, X. Hu, P.L. Yue, G.Q. Lu and P.F. Greenfield	173
New nickel catalysts supported on highly porous alumina intercalated laponite for methane reforming with CO ₂ K.-S. Hwang, H.Y. Zhu and G.Q. Lu	183
Thermal and mechanical stability of micelle-templated silica supports for catalysis A. Galarneau, D. Desplandier-Giscard, F. Di Renzo and F. Fajula	191
Effects of Fe ³⁺ and Ag ⁺ ions on the photocatalytic degradation of sucrose in water V. Vamathevan, H. Tse, R. Amal, G. Low and S. McEvoy	201
High activity in catalytic cracking over stable mesoporous aluminosilicates L. Zhu, F.-S. Xiao, Z. Zhang, Y. Sun, Y. Han and S. Qiu.	209
Nano-MgO: novel preparation and application as support of Ni catalyst for CO ₂ reforming of methane B.-Q. Xu, J.-M. Wei, H.-Y. Wang, K.-Q. Sun and Q.-M. Zhu	217
Nanoparticles of 3d transition metal oxides in mesoporous MCM-48 silica host structures: Synthesis and characterization R. Köhn and M. Fröba	227
Catalytic decomposition and reduction of N ₂ O on Ru/MCM-41 catalyst S. Kawi, S.Y. Liu and S.-C. Shen	237
Kinetic studies of selective catalytic reduction of nitric oxide by propylene on Pt/MCM-41 catalyst S.-C. Shen and S. Kawi	245
Adsorption and catalytic combustion of aromatics on platinum-supported MCM-41 materials Q.-H. Xia, K. Hidajat and S. Kawi.	255
Previous Issues of Catalysis Today	A1