

## Contents

### Vol. 247, Nos. 1–2

Pd-catalyzed carbonylation of $\alpha$ -arylvinyl bromides: Synthesis of 2-arylacrylic esters P.B. Silveira and A.L. Monteiro (Porto Alegre, Brazil) .....	1
Study of ruthenium oxide catalyst for electrocatalytic performance in oxygen evolution H. Ma, C. Liu, J. Liao, Y. Su, X. Xue and W. Xing (Changchun, PR China) .....	7
Tungstophosphoric acid supported on silica gel ( $H_3PW_{12}O_{40}/SiO_2$ ) as an eco-friendly, reusable and heterogeneous catalyst for chemoselective oxathioacetalization of carbonyl compounds in solution or under solvent-free conditions H. Firouzabadi, N. Iranpoor, A.A. Jafari and M.R. Jafari (Shiraz, Iran) .....	14
Synthesis of macroreticular <i>p</i> -( $\omega$ -sulfonic-perfluoroalkylated)polystyrene ion-exchange resin and its application as solid acid catalyst Z.H. Lin, C.J. Guan, X.L. Feng and C.X. Zhao (Shanghai, China) .....	19
$HClO_4$ - $SiO_2$ catalyzed chemoselective synthesis of acylals from aldehydes under solvent-free conditions R. Kumar, P. Tiwari, P.R. Maulik and A.K. Misra (Lucknow, India) .....	27
Isopropanol adsorption–oxidation over $V_2O_5$ —A mass spectrometry study G. Luis (La Plata, Argentina) .....	31
Photocatalytic degradation of methylparathion—An endocrine disruptor by $Bi^{3+}$ -doped $TiO_2$ S. Rengaraj, X.Z. Li, P.A. Tanner, Z.F. Pan and G.K.H. Pang (Hong Kong, PR China) .....	36
Synthesis and reactivity of heterometallic $RhO-M$ ( $M = Si, Ti$ ) complexes. Memory effect in their catalytic performance in CO hydrogenation M. Ojeda (Madrid, Spain), R. Fandos (Toledo, Spain), J.L.G. Fierro (Madrid, Spain), A. Otero (Ciudad Real, Spain), C. Pastor (Madrid, Spain), A. Rodríguez (Ciudad Real, Spain), M.J. Ruiz (Toledo, Spain) and P. Terreros (Madrid, Spain) .....	44
Layered growth of aligned carbon nanotubes arrays on silicon wafers H. Liu, G. Cheng, R. Zheng, Y. Zhao and C. Liang (Beijing, PR China) .....	52
Liquid-phase veratrole acylation and toluene alkylation over $WO_3/ZrO_2$ solid acid catalysts A. Bordoloi, N.T. Mathew, B.M. Devassy, S.P. Mirajkar and S.B. Halligudi (Pune, India) .....	58
Phosphane-free C–C Heck couplings catalyzed by Pd(II) fluorinated aniline complexes of the type <i>trans</i> -[ $PdCl_2(NH_2Ar^f)_2$ ] O. Baldovino-Pantaleón, J. Barroso-Flores, J.A. Cogordan, S. Hernández-Ortega, R.A. Toscano and D. Morales-Morales (México, México) .....	65
Hydroxylation of phenol with $H_2O_2$ over $Fe^{2+}$ and/or $Co^{2+}$ ion-exchanged NaY catalyst in the fixed-bed flow reactor J.-N. Park (Daejeon, Republic of Korea), J. Wang (Nanjing, China), K.Y. Choi, W.-Y. Dong (Daejeon, Republic of Korea), S.-I. Hong (Seoul, Republic of Korea) and C.W. Lee (Daejeon, Republic of Korea) .....	73
Vapour phase hydrogenation of cinnamaldehyde over silica supported transition metal-based bimetallic catalysts B.M. Reddy, G.M. Kumar, I. Ganesh and A. Khan (Hyderabad, India) .....	80
Routes of formation and composition of $NO_x$ complexes adsorbed on palladium-promoted tungstated zirconia M. Kantcheva and I. Cayirtepe (Ankara, Turkey) .....	88
Ion exchange resins as recyclable and heterogeneous solid acid catalysts for the Biginelli condensation: An improved protocol for the synthesis of 3,4-dihydropyrimidin-2-ones J.K. Joseph, S.L. Jain and B. Sain (Dehradun, India) .....	99
On the mechanism of Pd-catalyzed low pressure gas–solid hydrogenation I. Pri-Bar, S. Pevzner and J.E. Koresh (Beer-Sheva, Israel) .....	103
C9-O-substituted derivatives of cinchona alkaloids as chiral modifiers in the Orito-reaction: Effects of structure of modifiers on sense of enantioselectivity S. Cserényi, K. Felföldi, K. Balázsik, G. Szöllösi, I. Bucsi and M. Bartók (Szeged, Hungary) .....	108
Liquid phase aldol condensation of cyclopentanone with valeraldehyde catalysed by oxynitrides possessing tuneable acid–base properties M. Hasni, G. Prado, J. Rouchaud, P. Grange, M. Devillers and S. Delsarte (Louvain-la-Neuve, Belgium) .....	116
Ketone transfer hydrogenation reactions catalyzed by a phosphinite ruthenium PCP complex. The X-ray crystal structure of $[C_6H_4-1,3-(OPPh_2\{Ru(\eta^6-p\text{-cymene})Cl_2\})_2]$ R. Cerón-Camacho, V. Gómez-Benítez, R. Le Lagadec, D. Morales-Morales and R.A. Toscano (México, México) .....	124
Synthesis of fructose over dealuminated USY supported heteropoly acid and its salt catalysts F. Zhang, C. Yuan, J. Wang, Y. Kong, H. Zhu and C. Wang (Nanjing, PR China) .....	130
Hydroformylation of <i>m</i> -diisopropenylbenzene and 1-isopropyl-3-isopropenylbenzene for the preparation of the fragrance Florhydryal® S. Paganelli, A. Ciappa (Venezia, Italy), M. Marchetti (Sassari, Italy), A. Scrivanti and U. Matteoli (Venezia, Italy) .....	138
Mesostructured silicas as supports for palladium-catalyzed hydrogenation of phenyl acetylene and 1-phenyl-1-hexyne to alkenes N. Marín-Astorga, G. Pecchi (Concepción, Chile), T.J. Pinnavaia (East Lansing, MI, USA), G. Alvez-Manoli and P. Reyes (Concepción, Chile) .....	145

$\beta$ -Amino alcohols as ligands for asymmetric transfer hydrogenation of ketones in water X. Wu, X. Li, M. McConville, O. Saidi and J. Xiao (Liverpool, UK) .....	153
A simple, economical, and highly efficient synthesis of $\beta$ -hydroxynitriles from epoxide under solvent free conditions B. Mirmashhori, N. Azizi and M.R. Saidi (Tehran, Iran) .....	159
Phenol <i>tert</i> -butylation over zirconia-supported 12-molybdophosphoric acid catalyst B.M. Devassy, G.V. Shanbhag and S.B. Halligudi (Pune, India) .....	162
Catalytic nitroxidation of 1-methylnaphthalene. I. Preparation, characterisation and NO-surface interactions of chromia/alumina-based catalysts E. Rombi, M.G. Cutrufello (Monserrato, Italy), S. De Rossi (Roma, Italy), M.F. Sini and I. Ferino (Monserrato, Italy) .....	171
Convenient and facile cross-Aldol condensation catalyzed by molecular iodine: An efficient synthesis of $\alpha,\alpha'$ -bis(substituted-benzylidene) cycloalkanones B. Das, P. Thirupathi, I. Mahender and K.R. Reddy (Hyderabad, India) .....	182
An efficient synthesis of 5-substituted 1 <i>H</i> -tetrazoles using Zn/Al hydrotalcite catalyst M.L. Kantam, K.B. Shiva Kumar and K. Phani Raja (Hyderabad, India) .....	186
Formation and adsorption properties of the bridging sulfur vacancies at the (1 0 1 0) edge of $\text{Mo}_{27}\text{S}_{(54-x)}$ : A theoretical study G. Wu, K. Fan (Shanghai, PR China), B. Delmon (Louvain-la-Neuve, Belgium) and Y.-W. Li (Taiyuan, China) .....	189
Density functional theory study of methane activation over PdO/HZSM-5 J.-g. Wang and C.-j. Liu (Tianjin, PR China) .....	199
Effect of catalyst pore size on the catalytic performance of silica supported cobalt Fischer–Tropsch catalysts D. Song and J. Li (Wuhan, China) .....	206
Solid acid catalytic synthesis of 1,5-benzodiazepines: A highly improved protocol M. Tajbakhsh (Babolsar, Iran), M.M. Heravi, B. Mohajerani (Tehran, Iran) and A.N. Ahmadi (Babolsar, Iran) .....	213
Novel mesoporous silicotinphosphate molecular sieve with high anion exchange capacity D. Chandra (Kolkata, India), N.K. Mal (Osaka, Japan) and A. Bhaumik (Kolkata, India) .....	216
Water promotion or inhibition effect on isopropanol decomposition catalyzed with a sol–gel $\text{MgO-Al}_2\text{O}_3$ catalyst J.H. Zhang (Henan, PR China), X.L. Zhou (Shanghai, PR China) and J.A. Wang (México, Mexico) .....	222
The catalytic performance and corrosion inhibition of CuCl/Schiff base system in homogeneous oxidative carbonylation of methanol W. Mo, H. Xiong, T. Li, X. Guo and G. Li (Wuhan, PR China) .....	227
Amberlyst-15: An efficient reusable heterogeneous catalyst for the synthesis of 1,8-dioxo-octahydroxanthenes and 1,8-dioxo-decahydroacridines B. Das, P. Thirupathi, I. Mahender, V.S. Reddy and Y.K. Rao (Hyderabad, India) .....	233
Novel $\text{SiO}_2$ -supported chromium catalyst bearing new organo-siloxane ligand for ethylene polymerization Y. Fang, W. Xia, M. He, B. Liu, K. Hasebe and M. Terano (Ishikawa, Japan) .....	240
EMR characterisation of $\text{La}_{1.8}\text{M}_{0.2}\text{CuO}_4$ and $\text{La}_{0.9}\text{M}_{0.1}\text{CoO}_3$ ( $\text{M} = \text{Pr, Sm, Tb}$ ) catalysts for methane flameless combustion C. Oliva, S. Cappelli (Milano, Italy), A. Kryukov (Moscow, Russia), G.L. Chiarello (Milano, Italy), A.V. Vishniakov (Moscow, Russia) and L. Forni (Milano, Italy) .....	248
Novelties of kinetics of chemoselective reduction of citronellal to citronellol by sodium borohydride under liquid–liquid phase transfer catalysis G.D. Yadav and S.V. Lande (Mumbai, India) .....	253
Mechanism of oxidation of aryl methyl sulfoxides with sodium hypochlorite catalyzed by (salen) $\text{Mn}^{\text{III}}$ complexes A. Chellamani and S. Harikengaram (Tirunelveli, India) .....	260
Sonochemical synthesis and visible light photocatalytic behavior of CdSe and CdSe/ $\text{TiO}_2$ nanoparticles W. Ho and J.C. Yu (Hong Kong, China) .....	268
Selective hydrogenation of $\alpha,\beta$ -unsaturated oxosteroids with homogeneous rhodium catalysts R.M.D. Nunes, A.F. Peixoto (Coimbra, Portugal), M.R. Axet (Tarragona, Spain), M.M. Pereira, M.J. Moreno (Coimbra, Portugal), L. Kollár (Pécs, Hungary), C. Claver and S. Castillón (Tarragona, Spain) .....	275
Photocatalytic degradation of methylene blue on $\text{Bi}_2\text{MNbO}_7$ ( $\text{M} = \text{Al, Fe, In, Sm}$ ) sol–gel catalysts L.L. Garza-Tovar, L.M. Torres-Martínez, D.B. Rodríguez (Nuevo León, Mexico), R. Gómez and G. del Angel (México, Mexico) .....	283
Volume contents .....	291