

## Subject index

### Acetaldehyde

Rapid and complete oxidation of acetaldehyde on TiO<sub>2</sub> photocatalytic filter supported by photo-induced activated hydroxyapatite (Nishikawa, H. (236) 145)

### Acetic acid

Ammoximation of cyclohexanone in acetic acid using titanium silicalite-1 catalyst: Activity and reaction pathway (Sooknoi, T. (236) 220)

### Activity

Influence of alcohols on the formation of the nickel complexes active in ethene oligomerization in the catalytic system Ni(PPh<sub>3</sub>)<sub>4</sub>/BF<sub>3</sub>·OEt<sub>2</sub> (Saraev, V.V. (236) 125)

### Alcohol oxidation

Nickel containing Mg–Al hydrotalcite-type anionic clay catalyst for the oxidation of alcohols with molecular oxygen (Kawabata, T. (236) 206)

### Aldehyde

The asymmetric addition of phenylacetylene to aldehydes catalyzed by L-leucine derived chiral sulfonamide alcohol ligands (Han, Z.-j. (236) 32)

### Alkoxy species

DFT—Quantum chemical study of the HZSM-5-cyclohexene interaction pathways (Cuán, A. (236) 194)

### O-Alkylation

Fundamental analysis of microwave irradiated liquid–liquid phase transfer catalysis (MILL-PTC): Simultaneous measurement of rate and exchange equilibrium constants in selective *O*-alkylation of *p*-*tert*-butylphenol with benzyl chloride (Yadav, G.D. (236) 54)

### Alkyne

Copper(II) ion-exchanged montmorillonite as catalyst for the direct addition of N—H bond to CC triple bond (Joseph, T. (236) 139)

### Aluminum cocatalyst

An examination of aluminum chain transfer reaction in *rac*-Me<sub>2</sub>Si [2-Me-4-Naph-Ind]<sub>2</sub>ZrCl<sub>2</sub>/MAO-catalyzed propylene polymerization and synthesis of aluminum-terminated isotactic polypropylene with controlled molecular weight (Fan, G. (236) 246)

### Aluminum thin films

Interaction of molybdenum hexacarbonyl with metallic aluminum at high temperatures: Carbide and alloy formation (Wang, Y. (236) 18)

### <sup>27</sup>Al 3QMAS NMR

Detection of active sites for paraffin cracking on USY zeolite by <sup>27</sup>Al MQMAS NMR operated at high magnetic field 16 T (Katada, N. (236) 239)

### 2-Aminophenol

Bis(2-[α-hydroxyethyl]benzimidazolato)copper(II) anchored onto chloromethylated polystyrene for the biomimetic oxidative coupling of 2-aminophenol to 2-aminophenoxazine-3-one (Maurya, M.R. (236) 132)

### 2-Aminophenoxazine-3-one

Bis(2-[α-hydroxyethyl]benzimidazolato)copper(II) anchored onto chloromethylated polystyrene for the biomimetic oxidative coupling of 2-aminophenol to 2-aminophenoxazine-3-one (Maurya, M.R. (236) 132)

### Ammoximation

Ammoximation of cyclohexanone in acetic acid using titanium silicalite-1 catalyst: Activity and reaction pathway (Sooknoi, T. (236) 220)

### Aniline

Copper(II) ion-exchanged montmorillonite as catalyst for the direct addition of N—H bond to CC triple bond (Joseph, T. (236) 139)

### Asymmetric addition reaction

The asymmetric addition of phenylacetylene to aldehydes catalyzed by L-leucine derived chiral sulfonamide alcohol ligands (Han, Z.-j. (236) 32)

### Asymmetric epoxidation

Synthesis, characterization and catalytic studies of bis(chloro)dioxo-molybdenum(VI)-chiral diimine complexes (Gago, S. (236) 1)

### Au

Investigations on gold nanoparticles in mesoporous and microporous materials (Akolekar, D.B. (236) 77)

### Auger spectroscopy

Interaction of molybdenum hexacarbonyl with metallic aluminum at high temperatures: Carbide and alloy formation (Wang, Y. (236) 18)

### Baeyer–Villiger reaction

Iron-containing MCM-41 catalysts for Baeyer–Villiger oxidation of ketones using molecular oxygen and benzaldehyde (Kawabata, T. (236) 99)

### Benzaldehyde

Iron-containing MCM-41 catalysts for Baeyer–Villiger oxidation of ketones using molecular oxygen and benzaldehyde (Kawabata, T. (236) 99)

### Benzene alkylation

Synthesis of linear alkyl benzenes over zirconia-supported 12-molybdophosphoric acid catalysts (Devassy, B.M. (236) 162)

### Benzyl alcohol

Friedel–Crafts alkylation of aromatics with benzyl alcohols catalyzed by rare earth metal triflates supported on MCM-41 mesoporous silica (Mantri, K. (236) 168)

### Benzyl chloride

Fundamental analysis of microwave irradiated liquid–liquid phase transfer catalysis (MILL-PTC): Simultaneous measurement of rate and exchange equilibrium constants in selective *O*-alkylation of *p*-*tert*-butylphenol with benzyl chloride (Yadav, G.D. (236) 54)

### Benzylic oxidation

Concerning chemistry, reactivity, and mechanism of transition metal catalysed oxidation of benzylic compounds by means of ozone (Waser, M. (236) 187)

### Biginelli reaction

Natural HEU type zeolite catalyzed Biginelli reaction for the synthesis of 3,4-dihydropyrimidin-2(1H) one derivatives (Tajbakhsh, M. (236) 216)

### Bioxazolyl

Effects of bulky ligands and water in Pd-catalyzed oxidative carbonylation of phenol (Yasuda, H. (236) 149)

### 2,2′-Bipyridine

Kinetics and mechanism of 2,2′-bipyridyl and 1,10-phenanthroline-catalysed chromium(VI) oxidation of D-fructose in aqueous micellar media (Islam, M. (236) 260)

- Bipyridyl**  
Effects of bulky ligands and water in Pd-catalyzed oxidative carbonylation of phenol (Yasuda, H. (236) 149)
- Bis(2-[ $\alpha$ -hydroxyethyl]benzimidazolato)copper(II)**  
Bis(2-[ $\alpha$ -hydroxyethyl]benzimidazolato)copper(II) anchored onto chloromethylated polystyrene for the biomimetic oxidative coupling of 2-aminophenol to 2-aminophenoxazine-3-one (Maurya, M.R. (236) 132)
- Bis-oxazoline**  
Isbut-Box: A new chiral  $C_2$  symmetric bis-oxazoline for catalytic enantioselective synthesis (da Plama Carreiro, E. (236) 38)
- Branched**  
Synthesis of branched polyethylene from ethylene stock by an interference-free tandem catalysis of  $TiCl_4/MgCl_2$  and iron catalyst (Zhang, Z. (236) 87)
- Brønsted acidity**  
Detection of active sites for paraffin cracking on USY zeolite by  $^{27}Al$  MQMAS NMR operated at high magnetic field 16 T (Katada, N. (236) 239)
- p*-tert-Butylphenol**  
Fundamental analysis of microwave irradiated liquid–liquid phase transfer catalysis (MILL-PTC): Simultaneous measurement of rate and exchange equilibrium constants in selective *O*-alkylation of *p*-tert-butylphenol with benzyl chloride (Yadav, G.D. (236) 54)
- Carbene carbon monoxide coupling**  
Preparation of triphenylphosphane substituted ethoxycarbonylcarbene-bridged dicobalt carbonyl complexes and their application as catalyst precursors in the carbonylation of ethyl diazoacetate to diethyl malonate (Tuba, R. (236) 113)
- Carbenium ion**  
DFT—Quantum chemical study of the HZSM-5-cyclohexene interaction pathways (Cuán, A. (236) 194)
- Carbon**  
Uniform carbon-covered titania and its photocatalytic property (Lin, L. (236) 46)
- Carbon-covered titania**  
Uniform carbon-covered titania and its photocatalytic property (Lin, L. (236) 46)
- Carbonyl compound**  
Efficient and highly-selective cycloaddition of epoxides with carbonyl compound over Wells–Dawson type heteropolyacids (Li, G. (236) 72)
- Carboxylates**  
Synthesis, structure and catalase-like activity of new dicopper(II) complexes with phenylglyoxylate and benzoate ligands (Kaizer, J. (236) 12)
- Catalase**  
Synthesis, structure and catalase-like activity of new dicopper(II) complexes with phenylglyoxylate and benzoate ligands (Kaizer, J. (236) 12)
- Catalysis**  
Isbut-Box: A new chiral  $C_2$  symmetric bis-oxazoline for catalytic enantioselective synthesis (da Plama Carreiro, E. (236) 38)  
Reduction of carbonyl groups by high-valent rhenium oxides (Royo, B. (236) 107)  
O,N,O'-tridentate ligands derived from carbohydrates in the V(IV)-promoted asymmetric oxidation of thioanisole (Cucciolito, M.E. (236) 176)  
DFT—Quantum chemical study of the HZSM-5-cyclohexene interaction pathways (Cuán, A. (236) 194)  
Kinetics and mechanism of 2,2'-bipyridyl and 1,10-phenanthroline-catalysed chromium(VI) oxidation of D-fructose in aqueous micellar media (Islam, M. (236) 260)
- Catalyst**  
Synthesis of branched polyethylene from ethylene stock by an interference-free tandem catalysis of  $TiCl_4/MgCl_2$  and iron catalyst (Zhang, Z. (236) 87)  
Preparation, characterization and catalytic activity of polystyrene with pendent perfluoroalkylsulfonylimide groups (Xiao, J. (236) 119)
- Copper(II) ion-exchanged montmorillonite as catalyst for the direct addition of N—H bond to CC triple bond (Joseph, T. (236) 139)
- Chain transfer reaction**  
Computational modeling of ruthenium alkylidene mediated olefin metathesis. A DFT study of reaction pathways for the ring-opening cross-metathesis of norbornene with olefins (Fomine, S. (236) 156)
- Chain transfer**  
An examination of aluminum chain transfer reaction in *rac*-Me<sub>2</sub>Si [2-Me-4-Naph-Ind]<sub>2</sub>ZrCl<sub>2</sub>/MAO-catalyzed propylene polymerization and synthesis of aluminum-terminated isotactic polypropylene with controlled molecular weight (Fan, G. (236) 246)
- Chemisorption**  
Interaction of molybdenum hexacarbonyl with metallic aluminum at high temperatures: Carbide and alloy formation (Wang, Y. (236) 18)
- Chiral diimines**  
Synthesis, characterization and catalytic studies of bis(chloro)dioxo-molybdenum(VI)-chiral diimine complexes (Gago, S. (236) 1)
- Chiral modifiers**  
Effect of modifier structure in asymmetric 1-phenylpropane-1,2-dione hydrogenation (Busygin, I. (236) 227)
- Chloromethylated polystyrene**  
Bis(2-[ $\alpha$ -hydroxyethyl]benzimidazolato)copper(II) anchored onto chloromethylated polystyrene for the biomimetic oxidative coupling of 2-aminophenol to 2-aminophenoxazine-3-one (Maurya, M.R. (236) 132)
- Chromium(VI)**  
Kinetics and mechanism of 2,2'-bipyridyl and 1,10-phenanthroline-catalysed chromium(VI) oxidation of D-fructose in aqueous micellar media (Islam, M. (236) 260)
- Chromium-silicate**  
Mesoporous Cr-MCM-41: An efficient catalyst for selective oxidation of cycloalkanes (Samanta, S. (236) 7)
- Cinchonidine**  
Effect of modifier structure in asymmetric 1-phenylpropane-1,2-dione hydrogenation (Busygin, I. (236) 227)
- Computational modeling**  
Computational modeling of ruthenium alkylidene mediated olefin metathesis. A DFT study of reaction pathways for the ring-opening cross-metathesis of norbornene with olefins (Fomine, S. (236) 156)
- Copolymerization**  
Synthesis of branched polyethylene from ethylene stock by an interference-free tandem catalysis of  $TiCl_4/MgCl_2$  and iron catalyst (Zhang, Z. (236) 87)
- Copper**  
Synthesis, structure and catalase-like activity of new dicopper(II) complexes with phenylglyoxylate and benzoate ligands (Kaizer, J. (236) 12)
- Cross-metathesis**  
Computational modeling of ruthenium alkylidene mediated olefin metathesis. A DFT study of reaction pathways for the ring-opening cross-metathesis of norbornene with olefins (Fomine, S. (236) 156)
- Cyclic olefins**  
DFT—Quantum chemical study of the HZSM-5-cyclohexene interaction pathways (Cuán, A. (236) 194)
- Cycloaddition**  
Efficient and highly-selective cycloaddition of epoxides with carbonyl compound over Wells–Dawson type heteropolyacids (Li, G. (236) 72)
- Cyclopropanation**  
Isbut-Box: A new chiral  $C_2$  symmetric bis-oxazoline for catalytic enantioselective synthesis (da Plama Carreiro, E. (236) 38)
- Density functional calculations**  
DFT—Quantum chemical study of the HZSM-5-cyclohexene interaction pathways (Cuán, A. (236) 194)

- Diethyl malonate  
Preparation of triphenylphosphane substituted ethoxycarbonylcarbene-bridged dicobalt carbonyl complexes and their application as catalyst precursors in the carbonylation of ethyl diazoacetate to diethyl malonate (Tuba, R. (236) 113)
- Dihydropyrimidinones  
Natural HEU type zeolite catalyzed Biginelli reaction for the synthesis of 3,4-dihydropyrimidin-2(1H) one derivatives (Tajbakhsh, M. (236) 216)
- 1,3-Dioxolane  
Efficient and highly-selective cycloaddition of epoxides with carbonyl compound over Wells–Dawson type heteropolyacids (Li, G. (236) 72)
- Diphenyl carbonate  
Effects of bulky ligands and water in Pd-catalyzed oxidative carbonylation of phenol (Yasuda, H. (236) 149)
- Diphenylmethane  
Friedel–Crafts alkylation of aromatics with benzyl alcohols catalyzed by rare earth metal triflates supported on MCM-41 mesoporous silica (Mantri, K. (236) 168)
- Direct decomposition  
Kinetics and mechanism of NO decomposition over  $\text{La}_{0.4}\text{Sr}_{0.6}\text{Mn}_{0.8}\text{Ni}_{0.2}\text{O}_3$  perovskite-type oxides (Zhu, J. (236) 182)
- EDTA-treated USY zeolite  
Detection of active sites for paraffin cracking on USY zeolite by  $^{27}\text{Al}$  MQMAS NMR operated at high magnetic field 16 T (Katada, N. (236) 239)
- Enantioselective hydrogenation  
Effect of modifier structure in asymmetric 1-phenylpropane-1,2-dione hydrogenation (Busygin, I. (236) 227)
- Enantioselective  
Isbut-Box: A new chiral  $C_2$  symmetric bis-oxazoline for catalytic enantioselective synthesis (da Plama Carreiro, E. (236) 38)
- Enantioselectivity  
 $\text{O},\text{N},\text{O}'$ -tridentate ligands derived from carbohydrates in the V(IV)-promoted asymmetric oxidation of thioanisole (Cucciolo, M.E. (236) 176)
- Epoxides  
Efficient and highly-selective cycloaddition of epoxides with carbonyl compound over Wells–Dawson type heteropolyacids (Li, G. (236) 72)
- Equilibrium constant  
Fundamental analysis of microwave irradiated liquid–liquid phase transfer catalysis (MILL-PTC): Simultaneous measurement of rate and exchange equilibrium constants in selective *O*-alkylation of *p*-*tert*-butylphenol with benzyl chloride (Yadav, G.D. (236) 54)
- Esterification  
Preparation, characterization and catalytic activity of polystyrene with pendent perfluoroalkylsulfonilimide groups (Xiao, J. (236) 119)
- Ethene oligomerization  
Influence of alcohols on the formation of the nickel complexes active in ethene oligomerization in the catalytic system  $\text{Ni}(\text{PPh}_3)_4/\text{BF}_3\cdot\text{OEt}_2$  (Saraev, V.V. (236) 125)
- Extra-framework Al  
Detection of active sites for paraffin cracking on USY zeolite by  $^{27}\text{Al}$  MQMAS NMR operated at high magnetic field 16 T (Katada, N. (236) 239)
- Framework nickel  
Nickel containing Mg–Al hydrotalcite-type anionic clay catalyst for the oxidation of alcohols with molecular oxygen (Kawabata, T. (236) 206)
- Friedel–Crafts alkylation  
Friedel–Crafts alkylation of aromatics with benzyl alcohols catalyzed by rare earth metal triflates supported on MCM-41 mesoporous silica (Mantri, K. (236) 168)
- D-Fructose  
Kinetics and mechanism of 2,2'-bipyridyl and 1,10-phenanthroline-catalysed chromium(VI) oxidation of D-fructose in aqueous micellar media (Islam, M. (236) 260)
- Gold nanoparticles  
Investigations on gold nanoparticles in mesoporous and microporous materials (Akolekar, D.B. (236) 77)
- Hammett coefficient  
Concerning chemistry, reactivity, and mechanism of transition metal catalysed oxidation of benzylic compounds by means of ozone (Waser, M. (236) 187)
- Heterogeneous catalyst  
Iron-containing MCM-41 catalysts for Baeyer–Villiger oxidation of ketones using molecular oxygen and benzaldehyde (Kawabata, T. (236) 99)  
Nickel containing Mg–Al hydrotalcite-type anionic clay catalyst for the oxidation of alcohols with molecular oxygen (Kawabata, T. (236) 206)
- Heulandite  
Natural HEU type zeolite catalyzed Biginelli reaction for the synthesis of 3,4-dihydropyrimidin-2(1H) one derivatives (Tajbakhsh, M. (236) 216)
- Homogeneous catalysis  
Synthesis, characterization and catalytic studies of bis(chloro)dioxomolybdenum(VI)-chiral diimine complexes (Gago, S. (236) 1)
- Hybrid catalyst  
The study of a synergetic effect over a H-ZSM-5/ $\text{V}_2\text{O}_5$  hybrid catalyst on SCR reaction (Jung, S.M. (236) 94)
- Hydroamination  
Copper(II) ion-exchanged montmorillonite as catalyst for the direct addition of N–H bond to CC triple bond (Joseph, T. (236) 139)
- Hydrosilylation  
Reduction of carbonyl groups by high-valent rhenium oxides (Royo, B. (236) 107)
- Hydroxyapatite  
Rapid and complete oxidation of acetaldehyde on  $\text{TiO}_2$  photocatalytic filter supported by photo-induced activated hydroxyapatite (Nishikawa, H. (236) 145)
- H-ZSM-5  
The study of a synergetic effect over a H-ZSM-5/ $\text{V}_2\text{O}_5$  hybrid catalyst on SCR reaction (Jung, S.M. (236) 94)
- Intensification of rates  
Fundamental analysis of microwave irradiated liquid–liquid phase transfer catalysis (MILL-PTC): Simultaneous measurement of rate and exchange equilibrium constants in selective *O*-alkylation of *p*-*tert*-butylphenol with benzyl chloride (Yadav, G.D. (236) 54)
- Iron  
Iron-containing MCM-41 catalysts for Baeyer–Villiger oxidation of ketones using molecular oxygen and benzaldehyde (Kawabata, T. (236) 99)
- Isospecific  
An examination of aluminum chain transfer reaction in *rac*- $\text{Me}_2\text{Si}[2\text{-Me-4-Naph-Ind}]_2\text{ZrCl}_2/\text{MAO}$ -catalyzed propylene polymerization and synthesis of aluminum-terminated isotactic polypropylene with controlled molecular weight (Fan, G. (236) 246)
- K-10 montmorillonite clay  
Copper(II) ion-exchanged montmorillonite as catalyst for the direct addition of N–H bond to CC triple bond (Joseph, T. (236) 139)
- Kinetics  
Synthesis, structure and catalase-like activity of new dicopper(II) complexes with phenylglyoxylate and benzoate ligands (Kaizer, J. (236) 12)  
Kinetic study of synthesizing *N*-butylphthalimide under solid–liquid phase-transfer catalysis conditions (Wang, M.-L. (236) 65)  
Kinetics and mechanism of NO decomposition over  $\text{La}_{0.4}\text{Sr}_{0.6}\text{Mn}_{0.8}\text{Ni}_{0.2}\text{O}_3$  perovskite-type oxides (Zhu, J. (236) 182)  
Kinetics and mechanism of 2,2'-bipyridyl and 1,10-phenanthroline-catalysed chromium(VI) oxidation of D-fructose in aqueous micellar media (Islam, M. (236) 260)

## L-Leucine

The asymmetric addition of phenylacetylene to aldehydes catalyzed by L-leucine derived chiral sulfonamide alcohol ligands (Han, Z.-j. (236) 32)

 $\text{La}_{0.4}\text{Sr}_{0.6}\text{Mn}_{0.8}\text{Ni}_{0.2}\text{O}_3$ 

Kinetics and mechanism of NO decomposition over  $\text{La}_{0.4}\text{Sr}_{0.6}\text{Mn}_{0.8}\text{Ni}_{0.2}\text{O}_3$  perovskite-type oxides (Zhu, J. (236) 182)

## Linear alkyl benzene

Synthesis of linear alkyl benzenes over zirconia-supported 12-molybdophosphoric acid catalysts (Devassy, B.M. (236) 162)

## Low silica faujasite

Investigations on gold nanoparticles in mesoporous and microporous materials (Akolekar, D.B. (236) 77)

## LSX

Investigations on gold nanoparticles in mesoporous and microporous materials (Akolekar, D.B. (236) 77)

## MCM-41

Iron-containing MCM-41 catalysts for Baeyer–Villiger oxidation of ketones using molecular oxygen and benzaldehyde (Kawabata, T. (236) 99)

Investigations on gold nanoparticles in mesoporous and microporous materials (Akolekar, D.B. (236) 77)

## Mechanism

Concerning chemistry, reactivity, and mechanism of transition metal catalysed oxidation of benzylic compounds by means of ozone (Waser, M. (236) 187)

## Mesoporous materials

Mesoporous Cr-MCM-41: An efficient catalyst for selective oxidation of cycloalkanes (Samanta, S. (236) 7)

Investigations on gold nanoparticles in mesoporous and microporous materials (Akolekar, D.B. (236) 77)

## Metallocene

An examination of aluminum chain transfer reaction in *rac*- $\text{Me}_2\text{Si}[2\text{-Me-4-Naph-Ind}]_2\text{ZrCl}_2/\text{MAO}$ -catalyzed propylene polymerization and synthesis of aluminum-terminated isotactic polypropylene with controlled molecular weight (Fan, G. (236) 246)

## Methylene blue

Uniform carbon-covered titania and its photocatalytic property (Lin, L. (236) 46)

## Microporous materials

Investigations on gold nanoparticles in mesoporous and microporous materials (Akolekar, D.B. (236) 77)

## Microwave irradiated liquid–liquid phase transfer catalysis (MILL-PTC)

Fundamental analysis of microwave irradiated liquid–liquid phase transfer catalysis (MILL-PTC): Simultaneous measurement of rate and exchange equilibrium constants in selective *O*-alkylation of *p*-*tert*-butylphenol with benzyl chloride (Yadav, G.D. (236) 54)

## Modeling

Fundamental analysis of microwave irradiated liquid–liquid phase transfer catalysis (MILL-PTC): Simultaneous measurement of rate and exchange equilibrium constants in selective *O*-alkylation of *p*-*tert*-butylphenol with benzyl chloride (Yadav, G.D. (236) 54)

## Molecular oxygen

Nickel containing Mg–Al hydrotalcite-type anionic clay catalyst for the oxidation of alcohols with molecular oxygen (Kawabata, T. (236) 206)

## Molybdenum hexacarbonyl

Interaction of molybdenum hexacarbonyl with metallic aluminum at high temperatures: Carbide and alloy formation (Wang, Y. (236) 18)

## Molybdenum

Synthesis, characterization and catalytic studies of bis(chloro)dioxomolybdenum(VI)-chiral diimine complexes (Gago, S. (236) 1)

## 12-Molybdophosphoric acid

Synthesis of linear alkyl benzenes over zirconia-supported 12-molybdophosphoric acid catalysts (Devassy, B.M. (236) 162)

## Neodymia

Synthesis, characterization and catalytic activity of  $\text{Nd}_2\text{O}_3$  supported  $\text{V}_2\text{O}_5$  catalysts (Shylesh, S. (236) 253)

## Ni(I) cationic complexes

Influence of alcohols on the formation of the nickel complexes active in ethene oligomerization in the catalytic system  $\text{Ni}(\text{PPh}_3)_4/\text{BF}_3\cdot\text{OEt}_2$  (Saraev, V.V. (236) 125)

## Ni(II) hydride complexes

Influence of alcohols on the formation of the nickel complexes active in ethene oligomerization in the catalytic system  $\text{Ni}(\text{PPh}_3)_4/\text{BF}_3\cdot\text{OEt}_2$  (Saraev, V.V. (236) 125)

## Nickel containing Mg–Al hydrotalcite

Nickel containing Mg–Al hydrotalcite-type anionic clay catalyst for the oxidation of alcohols with molecular oxygen (Kawabata, T. (236) 206)

## NO

Kinetics and mechanism of NO decomposition over  $\text{La}_{0.4}\text{Sr}_{0.6}\text{Mn}_{0.8}\text{Ni}_{0.2}\text{O}_3$  perovskite-type oxides (Zhu, J. (236) 182)

## One pot condensation

Natural HEU type zeolite catalyzed Biginelli reaction for the synthesis of 3,4-dihydropyrimidin-2(1H) one derivatives (Tajbakhsh, M. (236) 216)

## Orthovanadate

Synthesis, characterization and catalytic activity of  $\text{Nd}_2\text{O}_3$  supported  $\text{V}_2\text{O}_5$  catalysts (Shylesh, S. (236) 253)

## Oxidation state

Mesoporous Cr-MCM-41: An efficient catalyst for selective oxidation of cycloalkanes (Samanta, S. (236) 7)

## Oxidations

O,N,O'-tridentate ligands derived from carbohydrates in the V(IV)-promoted asymmetric oxidation of thioanisole (Cucciolioto, M.E. (236) 176)

Kinetics and mechanism of 2,2'-bipyridyl and 1,10-phenanthroline-catalysed chromium(VI) oxidation of D-fructose in aqueous micellar media (Islam, M. (236) 260)

## Oxidative carbonylation

Effects of bulky ligands and water in Pd-catalyzed oxidative carbonylation of phenol (Yasuda, H. (236) 149)

## Oxidative coupling

Bis(2-[ $\alpha$ -hydroxyethyl]benzimidazolato)copper(II) anchored onto chloromethylated polystyrene for the biomimetic oxidative coupling of 2-aminophenol to 2-aminophenoxazine-3-one (Maurya, M.R. (236) 132)

## Oxide complexes

Synthesis, characterization and catalytic studies of bis(chloro)dioxomolybdenum(VI)-chiral diimine complexes (Gago, S. (236) 1)

## Oxo

Reduction of carbonyl groups by high-valent rhenium oxides (Royo, B. (236) 107)

## Ozone

Concerning chemistry, reactivity, and mechanism of transition metal catalysed oxidation of benzylic compounds by means of ozone (Waser, M. (236) 187)

## Palladium

Effects of bulky ligands and water in Pd-catalyzed oxidative carbonylation of phenol (Yasuda, H. (236) 149)

## Paraffin cracking

Detection of active sites for paraffin cracking on USY zeolite by  $^{27}\text{Al}$  MQMAS NMR operated at high magnetic field 16 T (Katada, N. (236) 239)

Perfluoroalkylsulfonamides  $\text{R}_f\text{SO}_2\text{NH}_2$ 

Preparation, characterization and catalytic activity of polystyrene with pendent perfluoroalkylsulfonilimide groups (Xiao, J. (236) 119)

## Perovskite-type oxide

Kinetics and mechanism of NO decomposition over  $\text{La}_{0.4}\text{Sr}_{0.6}\text{Mn}_{0.8}\text{Ni}_{0.2}\text{O}_3$  perovskite-type oxides (Zhu, J. (236) 182)

## Phase-transfer catalysis

Kinetic study of synthesizing *N*-butylphthalimide under solid–liquid phase-transfer catalysis conditions (Wang, M.-L. (236) 65)

## 1,10-Phenanthroline

Kinetics and mechanism of 2,2'-bipyridyl and 1,10-phenanthroline-catalysed chromium(VI) oxidation of D-fructose in aqueous micellar media (Islam, M. (236) 260)

## Phenol hydroxylation

Synthesis, characterization and catalytic activity of Nd<sub>2</sub>O<sub>3</sub> supported V<sub>2</sub>O<sub>5</sub> catalysts (Shylesh, S. (236) 253)

## Phenylacetylene

Copper(II) ion-exchanged montmorillonite as catalyst for the direct addition of N-H bond to CC triple bond (Joseph, T. (236) 139)

The asymmetric addition of phenylacetylene to aldehydes catalyzed by L-leucine derived chiral sulfonamide alcohol ligands (Han, Z.-j. (236) 32)

## 1-Phenylpropane-1,2-dione

Effect of modifier structure in asymmetric 1-phenylpropane-1,2-dione hydrogenation (Busygin, I. (236) 227)

## Photocatalysis

Uniform carbon-covered titania and its photocatalytic property (Lin, L. (236) 46)

## Photocatalytic decomposition

Rapid and complete oxidation of acetaldehyde on TiO<sub>2</sub> photocatalytic filter supported by photo-induced activated hydroxyapatite (Nishikawa, H. (236) 145)

## Photocatalytic filter

Rapid and complete oxidation of acetaldehyde on TiO<sub>2</sub> photocatalytic filter supported by photo-induced activated hydroxyapatite (Nishikawa, H. (236) 145)

## Photo-induced excitation

Rapid and complete oxidation of acetaldehyde on TiO<sub>2</sub> photocatalytic filter supported by photo-induced activated hydroxyapatite (Nishikawa, H. (236) 145)

## Platinum catalyst

Effect of modifier structure in asymmetric 1-phenylpropane-1,2-dione hydrogenation (Busygin, I. (236) 227)

## Polyethylene (PE)

Synthesis of branched polyethylene from ethylene stock by an interference-free tandem catalysis of TiCl<sub>4</sub>/MgCl<sub>2</sub> and iron catalyst (Zhang, Z. (236) 87)

## Propylene polymerization

An examination of aluminum chain transfer reaction in *rac*-Me<sub>2</sub>Si[2-Me-4-Naph-Ind]<sub>2</sub>ZrCl<sub>2</sub>/MAO-catalyzed propylene polymerization and synthesis of aluminum-terminated isotactic polypropylene with controlled molecular weight (Fan, G. (236) 246)

## Proton donor

Influence of alcohols on the formation of the nickel complexes active in ethene oligomerization in the catalytic system Ni(PPh<sub>3</sub>)<sub>4</sub>/BF<sub>3</sub>·OEt<sub>2</sub> (Saraev, V.V. (236) 125)

## Rate constant

Fundamental analysis of microwave irradiated liquid–liquid phase transfer catalysis (MILL-PTC): Simultaneous measurement of rate and exchange equilibrium constants in selective *O*-alkylation of *p*-*tert*-butylphenol with benzyl chloride (Yadav, G.D. (236) 54)

## Reaction kinetics

Fundamental analysis of microwave irradiated liquid–liquid phase transfer catalysis (MILL-PTC): Simultaneous measurement of rate and exchange equilibrium constants in selective *O*-alkylation of *p*-*tert*-butylphenol with benzyl chloride (Yadav, G.D. (236) 54)

## Reaction pathway

Ammonixation of cyclohexanone in acetic acid using titanium silicalite-1 catalyst: Activity and reaction pathway (Sooknoi, T. (236) 220)

## Rhenium

Reduction of carbonyl groups by high-valent rhenium oxides (Royo, B. (236) 107)

## Ruthenium alkylidene

Computational modeling of ruthenium alkylidene mediated olefin metathesis. A DFT study of reaction pathways for the ring-opening cross-metathesis of norbornene with olefins (Fomine, S. (236) 156)

Sc(OTf)<sub>3</sub>/MCM-41

Friedel–Crafts alkylation of aromatics with benzyl alcohols catalyzed by rare earth metal triflates supported on MCM-41 mesoporous silica (Mantri, K. (236) 168)

## SCR reaction

The study of a synergetic effect over a H-ZSM-5/V<sub>2</sub>O<sub>5</sub> hybrid catalyst on SCR reaction (Jung, S.M. (236) 94)

## Selective partial oxidation

Mesoporous Cr-MCM-41: An efficient catalyst for selective oxidation of cycloalkanes (Samanta, S. (236) 7)

## Solid–liquid reaction

Kinetic study of synthesizing *N*-butylphthalimide under solid–liquid phase-transfer catalysis conditions (Wang, M.-L. (236) 65)

## Strongly acidic polymer

Preparation, characterization and catalytic activity of polystyrene with pendent perfluoroalkylsulfonamide groups (Xiao, J. (236) 119)

## Sucrose

Uniform carbon-covered titania and its photocatalytic property (Lin, L. (236) 46)

## Sugars

O,N,O'-tridentate ligands derived from carbohydrates in the V(IV)-promoted asymmetric oxidation of thioanisole (Cucciolo, M.E. (236) 176)

## Sulfide

O,N,O'-tridentate ligands derived from carbohydrates in the V(IV)-promoted asymmetric oxidation of thioanisole (Cucciolo, M.E. (236) 176)

## Sulfonamide alcohol

The asymmetric addition of phenylacetylene to aldehydes catalyzed by L-leucine derived chiral sulfonamide alcohol ligands (Han, Z.-j. (236) 32)

## Surface properties

Investigations on gold nanoparticles in mesoporous and microporous materials (Akolekar, D.B. (236) 77)

## Surfactants

Kinetics and mechanism of 2,2'-bipyridyl and 1,10-phenanthroline-catalysed chromium(VI) oxidation of D-fructose in aqueous micellar media (Islam, M. (236) 260)

## Synergetic effect

The study of a synergetic effect over a H-ZSM-5/V<sub>2</sub>O<sub>5</sub> hybrid catalyst on SCR reaction (Jung, S.M. (236) 94)

Synthesis of *N*-butylphthalimide

Kinetic study of synthesizing *N*-butylphthalimide under solid–liquid phase-transfer catalysis conditions (Wang, M.-L. (236) 65)

## Synthesis. In situ HTXRD

Investigations on gold nanoparticles in mesoporous and microporous materials (Akolekar, D.B. (236) 77)

## Temperature-programmed desorption

Interaction of molybdenum hexacarbonyl with metallic aluminum at high temperatures: Carbide and alloy formation (Wang, Y. (236) 18)

## Titanium dioxide

Rapid and complete oxidation of acetaldehyde on TiO<sub>2</sub> photocatalytic filter supported by photo-induced activated hydroxyapatite (Nishikawa, H. (236) 145)

## Transition metal catalysts

Concerning chemistry, reactivity, and mechanism of transition metal catalysed oxidation of benzylic compounds by means of ozone (Waser, M. (236) 187)

- Triphenylphosphane substituted ethoxycarbonylcarbene-bridged dicobalt carbonyl complexes  
Preparation of triphenylphosphane substituted ethoxycarbonylcarbene-bridged dicobalt carbonyl complexes and their application as catalyst precursors in the carbonylation of ethyl diazoacetate to diethyl malonate (Tuba, R. (236) 113)
- TS-1  
Ammoximation of cyclohexanone in acetic acid using titanium silicalite-1 catalyst: Activity and reaction pathway (Sooknoi, T. (236) 220)
- Vanadia  
Synthesis, characterization and catalytic activity of  $\text{Nd}_2\text{O}_3$  supported  $\text{V}_2\text{O}_5$  catalysts (Shylesh, S. (236) 253)
- Vanadium  
O,N,O'-tridentate ligands derived from carbohydrates in the V(IV)-promoted asymmetric oxidation of thioanisole (Cucciolito, M.E. (236) 176)
- $\text{V}_2\text{O}_5$   
The study of a synergetic effect over a H-ZSM-5/ $\text{V}_2\text{O}_5$  hybrid catalyst on SCR reaction (Jung, S.M. (236) 94)
- Wells–Dawson type molybdovanadophosphoricacids  
Efficient and highly-selective cycloaddition of epoxides with carbonyl compound over Wells–Dawson type heteropolyacids (Li, G. (236) 72)
- X-ray photoelectron spectroscopy  
Interaction of molybdenum hexacarbonyl with metallic aluminum at high temperatures: Carbide and alloy formation (Wang, Y. (236) 18)
- X-ray structure  
Synthesis, structure and catalase-like activity of new dicopper(II) complexes with phenylglyoxylate and benzoate ligands (Kaizer, J. (236) 12)
- XRD  
Investigations on gold nanoparticles in mesoporous and microporous materials (Akolekar, D.B. (236) 77)
- Zeolites  
DFT—Quantum chemical study of the HZSM-5-cyclohexene interaction pathways (Cuán, A. (236) 194)  
Natural HEU type zeolite catalyzed Biginelli reaction for the synthesis of 3,4-dihydropyrimidin-2(1H) one derivatives (Tajbakhsh, M. (236) 216)
- Zirconia  
Synthesis of linear alkyl benzenes over zirconia-supported 12-molybdophosphoric acid catalysts (Devassy, B.M. (236) 162)
- ZSM-5  
Investigations on gold nanoparticles in mesoporous and microporous materials (Akolekar, D.B. (236) 77)