



# Subject index

#### Acetic acid

Rhodium-catalyzed hydrocarbonylation of acetic acid into higher acids (Serp. P. (136) 269)

#### Acrolein hydrogenation

Effects of thiophene and SO<sub>2</sub> on acrolein hydrogenation over Co/SiO<sub>2</sub> catalysts (Bailie, J.E. (136) 35)

#### Activated carbon

Rhodium-catalyzed hydrocarbonylation of acetic acid into higher acids (Serp, P. (136) 269)

#### Adsorption rates

Methane adsorption on Rh/Al<sub>2</sub>O<sub>3</sub> (Wang, D. (136) 301)

#### Alkene

Hydrogenation of ethyl 12-trimethylsilyl-9-dodecyn-11-enoate by isocyanide polymer-bound Rh(PPh<sub>3</sub>)<sub>3</sub>Cl (Fiandanese, V. (136) 111)

#### Alkilidene complexes

Catalytic activity of  $Mo(NO)_2(HSO_4)_2L_2$  and  $[Mo(NO)_2-L_4](HSO_4)_2$  (L = MeCN, EtOH) in reaction of metathesis and epoxidation of olefins (Keller, A. (136) 115)

#### Alkvne

Hydrogenation of ethyl 12-trimethylsilyl-9-dodecyn-11-enoate by isocyanide polymer-bound Rh(PPh<sub>3</sub>)<sub>3</sub>Cl (Fiandanese, V. (136) 111)

Control of selectivity in the cobalt(I)-catalysed cocyclisation of alkynes with nitriles (Heller, B. (136) 219)

#### Allyl alcohol

Nickel vs. palladium catalysts for coupling reactions of allyl alcohol with soft nucleophiles: activities and deactivation processes (Bricout, H. (136) 243)

#### Allylic oxidation

Pyridines as bifunctional co-catalysts in the  $\text{CrO}_3$ -catalyzed oxygenation of olefins by *t*-butyl hydroperoxide (Rothenberg, G. (136) 253)

# $Al_2O_3$

Deposition of chromium hexacarbonyl on alumina in a fluidized bed reactor (Myllyoja, S. (136) 153)

#### Alumina

Deposition of chromium hexacarbonyl on alumina in a fluidized bed reactor (Myllyoja, S. (136) 153)

In situ diffuse reflectance infrared Fourier transform spectroscopy study of surface species involved in  $NO_x$  reduction by ethanol over alumina-supported silver catalyst (Chafik, T. (136) 203)

# Aminophosphine phosphinites

Asymmetric hydrogenation catalyzed by CARAPHOS-rhodium (Kreuzfeld, H.-J. (136) 105)

# Asymmetric epoxidation

Clay-supported non-chiral and chiral Mn(salen) complexes as catalysts for olefin epoxidation (Fraile, J.M. (136) 47)

### Asymmetric hydrogenation

Asymmetric hydrogenation catalyzed by CARAPHOS-rhodium (Kreuzfeld, H.-J. (136) 105)

#### Benzene

Direct hydroxylation of aromatics to their corresponding phenols catalysed by H-[Al]ZSM-5 zeolite (Motz, J.L. (136) 175)

#### Beta zeolite

Reduction of platinum dispersed on dealuminated beta zeolite (Ho, L.-W. (136) 293)

#### Bifunctional mechanism

Electrocatalytic oxidation of preadsorbed monolayer of CO on polycrystalline  $Pt_{60}-Ru_{40}$  electrocatalyst: nucleation and growth of oxygen-containing species (Metikoš-Huković, M. (136) 75)

# Bimetallic catalyst

Polymer-supported palladium-nickel bimetallic catalyst for the regioselective hydroesterification of styrene (Wan, B.-S. (136) 263)

# BOC-MP

A study of the thermodynamics of surface intermediates formations in the reactions between adsorbed atom and molecules on Pt(111) by the method of BOC-MP (Gobal, F. (136) 169) tert-Butyl hydroperoxide

Cyclohexane oxidation over rare earth exchanged zeolite Y (Pires, E.L. (136) 69)

Pyridines as bifunctional co-catalysts in the  $CrO_3$ -catalyzed oxygenation of olefins by t-butyl hydroperoxide (Rothenberg, G. (136) 253)

# Carazolol

Asymmetric hydrogenation catalyzed by CARAPHOS-rhodium (Kreuzfeld, H.-J. (136) 105)

# Carbon dioxide

Hydrogenation of carbon dioxide over Fe-Cu-Na/zeolite composite catalysts: Na migration via solid-solid reaction and its effects on the catalytic activity (Xu, Q. (136) 161)

#### Carbon monoxide

Electrocatalytic oxidation of preadsorbed monolayer of CO on polycrystalline  $Pt_{60}$ -Ru $_{40}$  electrocatalyst: nucleation and growth of oxygen-containing species (Metikoš-Huković, M. (136) 75)

#### Carboxylates

Carboxylate-type palladium(II) complexes as soluble precursors for the preparation of carbon-supported Pd/C catalysts (Hermans, S. (136) 59)

#### Catalysis

Catalytic activity of  $Mo(NO)_2(HSO_4)_2L_2$  and  $[Mo(NO)_2-L_4](HSO_4)_2$  (L = MeCN, EtOH) in reaction of metathesis and epoxidation of olefins (Keller, A. (136) 115)

Control of selectivity in the cobalt(I)-catalysed cocyclisation of alkynes with nitriles (Heller, B. (136) 219)

#### Catalyst poisoning

Nickel vs. palladium catalysts for coupling reactions of allyl alcohol with soft nucleophiles: activities and deactivation processes (Bricout, H. (136) 243)

# CF<sub>3</sub>CH<sub>2</sub>F

Preparation of 1,1,1,2-tetrafluoroethane by catalytic fluorination of 1,1,1-trifluoro-2-chloroethane over  $CrF_3/MgF_2$ -AlF<sub>3</sub> (Lee, H. (136) 85)

# Chelated complexes

Pyridines as bifunctional co-catalysts in the  $\text{CrO}_3$ -catalyzed oxygenation of olefins by *t*-butyl hydroperoxide (Rothenberg, G. (136) 253)

#### Chemical activation

Chemically activated ruthenium mono(bipyridine)/SiO<sub>2</sub> catalysts in water–gas shift reaction (Haukka, M. (136) 127)

# Chiral catalyst

[2.2]-para-Cyclophane-4-carbaldehyde as building-block for chiral ligands. Part II: Epoxidation of alkenes catalyzed by the Mn(III)-complex of an atropoisomerically pure  $(\alpha, \beta, \alpha, \beta)$ -tetraarylporphyrin (Rispens, M.T. (136) 13)

#### Chiral rhodium complexes

Asymmetric hydrogenation catalyzed by CARAPHOS-rhodium (Kreuzfeld, H.-J. (136) 105)

# Chromium fluoride

Preparation of 1,1,1,2-tetrafluoroethane by catalytic fluorination of 1,1,1-trifluoro-2-chloroethane over  $CrF_3/MgF_2$ -AlF<sub>3</sub> (Lee, H. (136) 85)

# Chromium hexacarbonyl

Deposition of chromium hexacarbonyl on alumina in a fluidized bed reactor (Myllyoja, S. (136) 153)

# Chromium trioxide

Pyridines as bifunctional co-catalysts in the  $CrO_3$ -catalyzed oxygenation of olefins by t-butyl hydroperoxide (Rothenberg, G. (136) 253)

#### Cobalt(I) complexes

Control of selectivity in the cobalt(I)-catalysed cocyclisation of alkynes with nitriles (Heller, B. (136) 219)

# Composite catalysts

Hydrogenation of carbon dioxide over Fe-Cu-Na/zeolite composite catalysts: Na migration via solid-solid reaction and its effects on the catalytic activity (Xu, Q. (136) 161)

#### Copper

Hydrogenation of carbon dioxide over Fe-Cu-Na/zeolite composite catalysts: Na migration via solid-solid reaction and its effects on the catalytic activity (Xu, Q. (136) 161)

The copper catalysed reduction of nitric oxide by ammonia in aqueous solution studied by membrane inlet mass spectrometry (Pénzeli, P. (136) 235)

# $Cr(CO)_6$

Deposition of chromium hexacarbonyl on alumina in a fluidized bed reactor (Myllyoja, S. (136) 153)

# Cross-linked polymer

Hydrogenation of ethyl 12-trimethylsilyl-9-dodecyn-11-enoate by isocyanide polymer-bound Rh(PPh<sub>3</sub>)<sub>3</sub>Cl (Fiandanese, V. (136) 111)

#### Cumene

Mechanistic investigation of the autooxidation of cumene catalyzed by transition metal salts supported on polymer (Hsu, Y F. (136) 1)

# Cyclohexane oxidation

Cyclohexane oxidation over rare earth exchanged zeolite Y (Pires, E.L. (136) 69)

#### Dealumination

Direct hydroxylation of aromatics to their corresponding phenols catalysed by H-[Al]ZSM-5 zeolite (Motz, J.L. (136) 175) Reduction of platinum dispersed on dealuminated beta zeolite (Ho, L.-W. (136) 293)

# Density-functional calculations

Dissociation of methane on different transition metals (Liao, M.-S. (136) 185)

### Dinitrosylmolybdenum complexes

Catalytic activity of  $Mo(NO)_2(HSO_4)_2L_2$  and  $[Mo(NO)_2-L_4](HSO_4)_2$  (L = MeCN, EtOH) in reaction of metathesis and epoxidation of olefins (Keller, A. (136) 115)

# Diphosphine

Hydroformylation of styrene using thiolato-pyrazolate bridge rhodium catalysts modified with phosphorous ligands (Orejón, A. (136) 279)

# Distribution coefficient

Equilibrium and extraction of quaternary salt in an organic solvent/alkaline solution: effect of NaOH concentration (Wu, H.-S. (136) 135)

# DRIFT

Deposition of chromium hexacarbonyl on alumina in a fluidized bed reactor (Myllyoja, S. (136) 153)

# Elastomeric polypropylene

Steric and electronic effects of R in (2-(4-R-C<sub>6</sub>H<sub>4</sub>)-indenyl)<sub>2</sub>ZrCl<sub>2</sub>catalysts on the synthesis of elastomeric polypropylene (Lin, S. (136) 23)

# Electrocatalysis

Electrocatalytic oxidation of preadsorbed monolayer of CO on polycrystalline Pt<sub>60</sub>-Ru<sub>40</sub> electrocatalyst: nucleation and growth of oxygen-containing species (Metikoš-Huković, M. (136) 75)

#### Electronic effects

Steric and electronic effects of R in (2-(4-R-C<sub>6</sub>H<sub>4</sub>)-indenyl)<sub>2</sub>ZrCl<sub>2</sub>catalysts on the synthesis of elastomeric polypropylene (Lin, S. (136) 23)

# Enantioselectivity

Hydroformylation of styrene using thiolato-pyrazolate bridge rhodium catalysts modified with phosphorous ligands (Orejón, A. (136) 279)

#### Epoxidation

[2.2]-para-Cyclophane-4-carbaldehyde as building-block for chiral ligands. Part II: Epoxidation of alkenes catalyzed by the Mn(III)-complex of an atropoisomerically pure  $(\alpha, \beta, \alpha, \beta)$ -tetraarylporphyrin (Rispens, M.T. (136) 13)

Catalytic activity of  $Mo(NO)_2(HSO_4)_2L_2$  and  $[Mo(NO)_2-L_4](HSO_4)_2$  (L = MeCN, EtOH) in reaction of metathesis and

epoxidation of olefins (Keller, A. (136) 115)

Synthesis, characterisation and homogeneous catalytic activity study of Mn(II) and Fe(III) ternary complexes (Sureshan, C.A. (136) 285)

#### Ethanol

In situ diffuse reflectance infrared Fourier transform spectroscopy study of surface species involved in  $NO_x$  reduction by ethanol over alumina-supported silver catalyst (Chafik, T. (136) 203)

#### Extraction

Equilibrium and extraction of quaternary salt in an organic solvent/alkaline solution: effect of NaOH concentration (Wu, H.-S. (136) 135)

# Extra framework alumina

Direct hydroxylation of aromatics to their corresponding phenols catalysed by H-[Al]ZSM-5 zeolite (Motz, J.L. (136) 175)

#### FAU zeolites

Cyclohexane oxidation over rare earth exchanged zeolite Y (Pires, E.L. (136) 69)

#### Fluidized bed reactor

Deposition of chromium hexacarbonyl on alumina in a fluidized bed reactor (Myllyoja, S. (136) 153)

### Fluorination

Preparation of 1,1,1,2-tetrafluoroethane by catalytic fluorination of 1,1,1-trifluoro-2-chloroethane over  $CrF_3/MgF_2$ -AlF<sub>3</sub> (Lee, H. (136) 85)

#### Framework aluminum and silicon

Electronic and structural properties of montmorillonite—a quantum chemical study (Chatterjee, A. (136) 195)

# H-[A1]ZSM-5

Direct hydroxylation of aromatics to their corresponding phenols catalysed by H-[Al]ZSM-5 zeolite (Motz, J.L. (136) 175)

### Heterocyclotrimerisation

Control of selectivity in the cobalt(I)-catalysed cocyclisation of alkynes with nitriles (Heller, B. (136) 219)

# Heterogeneous catalysis

Clay-supported non-chiral and chiral Mn(salen) complexes as catalysts for olefin epoxidation (Fraile, J.M. (136) 47)

Carboxylate-type palladium(II) complexes as soluble precursors for the preparation of carbon-supported Pd/C catalysts (Hermans, S. (136) 59)

# 1-Hexene metathesis

A comparative study of hydrosilane compounds as cocatalysts in the metathesis of 1-hexene (Baibich, I.M. (136) 213)

# Homologation

Rhodium-catalyzed hydrocarbonylation of acetic acid into higher acids (Serp, P. (136) 269)

#### HREELS

A study of the thermodynamics of surface intermediates formations in the reactions between adsorbed atom and molecules on Pt(111) by the method of BOC-MP (Gobal, F. (136) 169)

# Hydrocarbonylation

Rhodium-catalyzed hydrocarbonylation of acetic acid into higher acids (Serp, P. (136) 269)

#### Hydroformylation

Hydroformylation of styrene using thiolato-pyrazolate bridge rhodium catalysts modified with phosphorous ligands (Orejón, A. (136) 279)

#### Hydroger

A study of the thermodynamics of surface intermediates formations in the reactions between adsorbed atom and molecules on Pt(111) by the method of BOC-MP (Gobal, F. (136) 169)

#### Hydrogenation

Hydrogenation of carbon dioxide over Fe-Cu-Na/zeolite composite catalysts: Na migration via solid-solid reaction and its effects on the catalytic activity (Xu. O. (136) 161)

#### Hydrogen transfer

Hydrogen transfer reduction of ketones catalyzed by Fluka K-10 montmorillonite (Dolmazon, D. (136) 147)

# Hydrosilane cocatalysts

A comparative study of hydrosilane compounds as cocatalysts in the metathesis of 1-hexene (Baibich, I.M. (136) 213)

# Hydrothermal treatment

Direct hydroxylation of aromatics to their corresponding phenols catalysed by H-[Al]ZSM-5 zeolite (Motz, J.L. (136) 175) Hydroxy benzene derivatives

Direct hydroxylation of aromatics to their corresponding phenols catalysed by H-[Al]ZSM-5 zeolite (Motz, J.L. (136) 175)

# In situ DRIFT

In situ diffuse reflectance infrared Fourier transform spectroscopy study of surface species involved in  $NO_x$  reduction by ethanol over alumina-supported silver catalyst (Chafik, T. (136) 203)

### Intermediate phases

New intermediate phases in formation at V-Mg-O catalyst (Oganowski, W. (136) 91)

# Iodide promoter

Rhodium-catalyzed hydrocarbonylation of acetic acid into higher acids (Serp, P. (136) 269)

### Iron

Hydrogenation of carbon dioxide over Fe-Cu-Na/zeolite composite catalysts: Na migration via solid-solid reaction and its effects on the catalytic activity (Xu, Q. (136) 161)

### Iron complexes

Synthesis, characterisation and homogeneous catalytic activity study of Mn(II) and Fe(III) ternary complexes (Sureshan, C.A. (136) 285)

# Isocyanide polymer

Hydrogenation of ethyl 12-trimethylsilyl-9-dodecyn-11-enoate by isocyanide polymer-bound Rh(PPh<sub>3</sub>)<sub>3</sub>Cl (Fiandanese, V. (136) 111)

#### Ketones

Hydrogen transfer reduction of ketones catalyzed by Fluka K-10 montmorillonite (Dolmazon, D. (136) 147)

# Magnesium orthovanadate

New intermediate phases in formation at V-Mg-O catalyst (Oganowski, W. (136) 91)

#### Manganese

[2.2]-para-Cyclophane-4-carbaldehyde as building-block for chiral ligands. Part II: Epoxidation of alkenes catalyzed by the Mn(III)-complex of an atropoisomerically pure  $(\alpha, \beta, \alpha, \beta)$ -tetraarylporphyrin (Rispens, M.T. (136) 13)

#### Manganese complexes

Synthesis, characterisation and homogeneous catalytic activity study of Mn(II) and Fe(III) ternary complexes (Sureshan, C.A. (136) 285)

### Mannich base

Synthesis, characterisation and homogeneous catalytic activity study of Mn(II) and Fe(III) ternary complexes (Sureshan, C.A. (136) 285)

### Membrane inlet mass spectrometry

The copper catalysed reduction of nitric oxide by ammonia in aqueous solution studied by membrane inlet mass spectrometry (Pénzeli, P. (136) 235)

#### Metallocene

Steric and electronic effects of R in (2-(4-R-C<sub>6</sub>H<sub>4</sub>)-indenyl)<sub>2</sub>ZrCl<sub>2</sub>catalysts on the synthesis of elastomeric polypropylene (Lin, S. (136) 23)

#### Metathesis

Catalytic activity of  $Mo(NO)_2(HSO_4)_2L_2$  and  $[Mo(NO)_2-L_4](HSO_4)_2$  (L = MeCN, EtOH) in reaction of metathesis and epoxidation of olefins (Keller, A. (136) 115)

# Methane adsorption

Methane adsorption on Rh/Al<sub>2</sub>O<sub>3</sub> (Wang, D. (136) 301)

#### Methane dissociation

Dissociation of methane on different transition metals (Liao, M.-S. (136) 185)

#### Mn(salen) on clays

Clay-supported non-chiral and chiral Mn(salen) complexes as catalysts for olefin epoxidation (Fraile, J.M. (136) 47)

#### Molecular sieves

Cyclohexane oxidation over rare earth exchanged zeolite Y (Pires, E.L. (136) 69)

#### Montmorillonite

Hydrogen transfer reduction of ketones catalyzed by Fluka K-10 montmorillonite (Dolmazon, D. (136) 147)

Electronic and structural properties of montmorillonite—a quantum chemical study (Chatterjee, A. (136) 195)

# Nickel

Nickel vs. palladium catalysts for coupling reactions of allyl alcohol with soft nucleophiles: activities and deactivation processes (Bricout, H. (136) 243)

# Nitric oxide

A study of the thermodynamics of surface intermediates formations in the reactions between adsorbed atom and molecules on Pt(111) by the method of BOC-MP (Gobal, F. (136) 169) The copper catalysed reduction of nitric oxide by ammonia in aqueous solution studied by membrane inlet mass spectrometry (Pénzeli, P. (136) 235)

#### Nitriles

Control of selectivity in the cobalt(I)-catalysed cocyclisation of alkynes with nitriles (Heller, B. (136) 219)

# Nitrous oxide

Direct hydroxylation of aromatics to their corresponding phenols catalysed by H-[Al]ZSM-5 zeolite (Motz, J.L. (136) 175)

# NO, reduction

In situ diffuse reflectance infrared Fourier transform spectroscopy study of surface species involved in  $NO_x$  reduction by ethanol over alumina-supported silver catalyst (Chafik, T. (136) 203)

# Nucleation

Electrocatalytic oxidation of preadsorbed monolayer of CO on polycrystalline  $Pt_{60}$ - $Ru_{40}$  electrocatalyst: nucleation and growth of oxygen-containing species (Metikoš-Huković, M. (136) 75)

#### Nucleophilic substitution

Nickel vs. palladium catalysts for coupling reactions of allyl alcohol with soft nucleophiles: activities and deactivation processes (Bricout, H. (136) 243)

# Olefin epoxidation

Pyridines as bifunctional co-catalysts in the  $CrO_3$ -catalyzed oxygenation of olefins by *t*-butyl hydroperoxide (Rothenberg, G. (136) 253)

#### Oxidation

Carboxylate-type palladium(II) complexes as soluble precursors for the preparation of carbon-supported Pd/C catalysts (Hermans, S. (136) 59)

### Oxidation catalyst

[2.2]-para-Cyclophane-4-carbaldehyde as building-block for chiral ligands. Part II: Epoxidation of alkenes catalyzed by the Mn(III)-complex of an atropoisomerically pure  $(\alpha, \beta, \alpha, \beta)$ -tetraarylporphyrin (Rispens, M.T. (136) 13)

# Oxygen

A study of the thermodynamics of surface intermediates formations in the reactions between adsorbed atom and molecules on Pt(111) by the method of BOC-MP (Gobal, F. (136) 169) Oxygen adsorption

Methane adsorption on Rh/Al<sub>2</sub>O<sub>3</sub> (Wang, D. (136) 301)

#### Palladium

Carboxylate-type palladium(II) complexes as soluble precursors for the preparation of carbon-supported Pd/C catalysts (Hermans, S. (136) 59)

#### Phase-transfer catalysis

Equilibrium and extraction of quaternary salt in an organic solvent/alkaline solution: effect of NaOH concentration (Wu, H.-S. (136) 135)

#### Phenol

Direct hydroxylation of aromatics to their corresponding phenols catalysed by H-[Al]ZSM-5 zeolite (Motz, J.L. (136) 175)

# Phosphine

Nickel vs. palladium catalysts for coupling reactions of allyl alcohol with soft nucleophiles: activities and deactivation processes (Bricout, H. (136) 243)

# Photochemical activation

Control of selectivity in the cobalt(I)-catalysed cocyclisation of alkynes with nitriles (Heller, B. (136) 219)

#### Platinum

Electrocatalytic oxidation of preadsorbed monolayer of CO on polycrystalline Pt<sub>60</sub>-Ru<sub>40</sub> electrocatalyst: nucleation and growth of oxygen-containing species (Metikoš-Huković, M. (136) 75)

# Platinum oxide

Reduction of platinum dispersed on dealuminated beta zeolite (Ho, L.-W. (136) 293)

# Polymer

Mechanistic investigation of the autooxidation of cumene catalyzed by transition metal salts supported on polymer (Hsu, Y.F. (136) 1)

#### Polymerization

Catalytic activity of  $Mo(NO)_2(HSO_4)_2L_2$  and  $[Mo(NO)_2-L_4](HSO_4)_2$  (L = MeCN, EtOH) in reaction of metathesis and epoxidation of olefins (Keller, A. (136) 115)

#### Polymer protection

Polymer-supported palladium-nickel bimetallic catalyst for the regioselective hydroesterification of styrene (Wan, B.-S. (136) 263)

# Porphyrin

[2.2]-para-Cyclophane-4-carbaldehyde as building-block for chiral ligands. Part II: Epoxidation of alkenes catalyzed by the Mn(III)-complex of an atropoisomerically pure  $(\alpha, \beta, \alpha, \beta)$ -tetraarylporphyrin (Rispens, M.T. (136) 13)

# Propionic acid

Rhodium-catalyzed hydrocarbonylation of acetic acid into higher acids (Serp, P. (136) 269)

#### Pt(111)

A study of the thermodynamics of surface intermediates formations in the reactions between adsorbed atom and molecules on Pt(111) by the method of BOC-MP (Gobal, F. (136) 169)

# Pyridine

Control of selectivity in the cobalt(I)-catalysed cocyclisation of alkynes with nitriles (Heller, B. (136) 219)

Pyridines as bifunctional co-catalysts in the  $\text{CrO}_3$ -catalyzed oxygenation of olefins by *t*-butyl hydroperoxide (Rothenberg, G. (136) 253)

# Ouantum chemical calculations

Electronic and structural properties of montmorillonite—a quantum chemical study (Chatterjee, A. (136) 195)

#### Rare earth metals

Cyclohexane oxidation over rare earth exchanged zeolite Y (Pires, E.L. (136) 69)

# Redox catalysts

Cyclohexane oxidation over rare earth exchanged zeolite Y (Pires, E.L. (136) 69)

#### Reduction

Hydrogen transfer reduction of ketones catalyzed by Fluka K-10 montmorillonite (Dolmazon, D. (136) 147)

Hydrogenation of carbon dioxide over Fe-Cu-Na/zeolite composite catalysts: Na migration via solid-solid reaction and its effects on the catalytic activity (Xu, Q. (136) 161)

# Regioselective hydroesterification

Polymer-supported palladium-nickel bimetallic catalyst for the regioselective hydroesterification of styrene (Wan, B.-S. (136) 263)

# Rhodium

Hydrogenation of ethyl 12-trimethylsilyl-9-dodecyn-11-enoate by isocyanide polymer-bound Rh(PPh<sub>3</sub>)<sub>3</sub>Cl (Fiandanese, V. (136) 111)

Hydroformylation of styrene using thiolato-pyrazolate bridge rhodium catalysts modified with phosphorous ligands (Orejón, A. (136) 279)

#### Rhodium catalysis

Rhodium-catalyzed hydrocarbonylation of acetic acid into higher acids (Serp, P. (136) 269)

# Ruthenium

Electrocatalytic oxidation of preadsorbed monolayer of CO on polycrystalline  $Pt_{60}-Ru_{40}$  electrocatalyst: nucleation and growth of oxygen-containing species (Metikoš-Huković, M. (136) 75)

# Ruthenium mono(bipyridine)/SiO<sub>2</sub> catalysts

Chemically activated ruthenium mono(bipyridine)/SiO<sub>2</sub> catalysts in water–gas shift reaction (Haukka, M. (136) 127)

#### Selective hydrogenation

Hydrogenation of ethyl 12-trimethylsilyl-9-dodecyn-11-enoate by isocyanide polymer-bound Rh(PPh<sub>3</sub>)<sub>3</sub>Cl (Fiandanese, V. (136) 111)

### Semi-empirical calculations

Pyridines as bifunctional co-catalysts in the  $CrO_3$ -catalyzed oxygenation of olefins by *t*-butyl hydroperoxide (Rothenberg, G. (136) 253)

#### Silver

In situ diffuse reflectance infrared Fourier transform spectroscopy study of surface species involved in  $NO_x$  reduction by ethanol over alumina-supported silver catalyst (Chafik, T. (136) 203)

#### Sodium

Hydrogenation of carbon dioxide over Fe-Cu-Na/zeolite composite catalysts: Na migration via solid-solid reaction and its effects on the catalytic activity (Xu, Q. (136) 161)

#### Solid-solid reaction

Hydrogenation of carbon dioxide over Fe-Cu-Na/zeolite composite catalysts: Na migration via solid-solid reaction and its effects on the catalytic activity (Xu, O. (136) 161)

# Structure-sensitive reaction

Methane adsorption on Rh/Al<sub>2</sub>O<sub>3</sub> (Wang, D. (136) 301)

# Styrene

Polymer-supported palladium-nickel bimetallic catalyst for the regioselective hydroesterification of styrene (Wan, B.-S. (136) 263)

# Sulphur dioxide poisoning

Effects of thiophene and SO<sub>2</sub> on acrolein hydrogenation over Co/SiO<sub>2</sub> catalysts (Bailie, J.E. (136) 35)

#### Supported catalyst

Hydrogenation of ethyl 12-trimethylsilyl-9-dodecyn-11-enoate by isocyanide polymer-bound Rh(PPh<sub>3</sub>)<sub>3</sub>Cl (Fiandanese, V. (136) 111)

### Supported cobalt catalyst

Effects of thiophene and SO<sub>2</sub> on acrolein hydrogenation over Co/SiO<sub>2</sub> catalysts (Bailie, J.E. (136) 35)

# Surface intermediates

A study of the thermodynamics of surface intermediates formations in the reactions between adsorbed atom and molecules on Pt(111) by the method of BOC-MP (Gobal, F. (136) 169)

# Synergic effect

Polymer-supported palladium-nickel bimetallic catalyst for the regioselective hydroesterification of styrene (Wan, B.-S. (136) 263)

# Synergism

Electrocatalytic oxidation of preadsorbed monolayer of CO on polycrystalline  $Pt_{60}$ – $Ru_{40}$  electrocatalyst: nucleation and growth of oxygen-containing species (Metikoš-Huković, M. (136) 75)

# Ternary complexes

Synthesis, characterisation and homogeneous catalytic activity study of Mn(II) and Fe(III) ternary complexes (Sureshan, C.A. (136) 285)

### Thermodynamic equilibrium

Equilibrium and extraction of quaternary salt in an organic solvent/alkaline solution: effect of NaOH concentration (Wu, H.-S. (136) 135)

#### Thermogravimetric analysis

Hydrogenation of carbon dioxide over Fe-Cu-Na/zeolite composite catalysts: Na migration via solid-solid reaction and its effects on the catalytic activity (Xu, O. (136) 161)

# Thiophene poisoning

Effects of thiophene and SO<sub>2</sub> on acrolein hydrogenation over Co/SiO<sub>2</sub> catalysts (Bailie, J.E. (136) 35)

#### TPR

Reduction of platinum dispersed on dealuminated beta zeolite (Ho, L.-W. (136) 293)

#### Transition metals

Dissociation of methane on different transition metals (Liao, M.-S. (136) 185)

# Transition metal salt

Mechanistic investigation of the autooxidation of cumene catalyzed by transition metal salts supported on polymer (Hsu, Y.F. (136) 1)

#### Tungsten catalyst

A comparative study of hydrosilane compounds as cocatalysts in the metathesis of 1-hexene (Baibich, I.M. (136) 213)

### V-Mg-O catalyst

New intermediate phases in formation at V-Mg-O catalyst (Oganowski, W. (136) 91)

# Water-gas shift reaction

Chemically activated ruthenium mono(bipyridine)/SiO<sub>2</sub> catalysts in water-gas shift reaction (Haukka, M. (136) 127)

# Zeolite

Hydrogenation of carbon dioxide over Fe-Cu-Na/zeolite composite catalysts: Na migration via solid-solid reaction and its effects on the catalytic activity (Xu, Q. (136) 161)

Direct hydroxylation of aromatics to their corresponding phenols catalysed by H-[Al]ZSM-5 zeolite (Motz, J.L. (136) 175)