



# Subject Index

#### Activity

The influence of metal oxides on the activity and selectivity of transition metal catalysts 1

#### Adsorption

Interfacial coordination chemistry. Current status and applications 147

### Alkylation

A quantum-chemical study of *para/ortho*-toluene alkylation by adsorbed methoxy species on zeolites 75

#### Bifunctional catalysis

Butane isomerization over platinum promoted sulfated zirconia catalysts 35

#### Bimetallic catalysts

Unique selectivity for the dimerization of propene on RhSn/SiO<sub>2</sub> catalysts: implications on the mechanism of C-C bond formation and cleavage on bimetallic catalysts 61

Evidence for kinetic and oxidative stabilization of Rh on Mo-promoted Rh/ ${\rm Al_2O_3}$  129

# Bimolecular isomerization mechanism

Butane isomerization over platinum promoted sulfated zirconia catalysts 35

#### Butane isomerization

Butane isomerization over platinum promoted sulfated zirconia catalysts 35

### Carbenium ions

Butane isomerization over platinum promoted sulfated zirconia catalysts 35

#### Carbon monoxide

Evidence for kinetic and oxidative stabilization of Rh on Mo-promoted Rh/Al<sub>2</sub>O<sub>3</sub> 129

Evidence for kinetic and oxidative stabilization

Evidence for kinetic and oxidative stabilization of Rh on Mo-promoted Rh/Al<sub>2</sub>O<sub>3</sub> 129

### Chemisorption

Evidence for kinetic and oxidative stabilization of Rh on Mo-promoted Rh/Al<sub>2</sub>O<sub>3</sub> 129

# Computer simulation

Defect processes at low coordinate surface sites of MgO and their role in the partial oxidation of hydrocarbons 103

#### Coordination chemistry

Interfacial coordination chemistry. Current status and applications 147

### Copper acetate

Activation of dioxygen by copper complexes incorporated in molecular sieves 93

# Coumarin synthesis

Zeolite catalysed synthesis of coumarin derivatives 87

#### Cresol

Activation of dioxygen by copper complexes incorporated in molecular sieves 93

### Defect structures

Defect processes at low coordinate surface sites of MgO and their role in the partial oxidation of hydrocarbons 103

#### Dimerization

Unique selectivity for the dimerization of propene on RhSn/SiO<sub>2</sub> catalysts: implications on the mechanism of C-C bond formation and cleavage on bimetallic catalysts 61

# Dioxygen

Activation of dioxygen by copper complexes incorporated in molecular sieves 93

### **EXAFS**

Sn-promoting mechanism for ketone hydrogenation over  $Rh/SiO_2$  115

#### Gamma-alumina

Evidence for kinetic and oxidative stabilization of Rh on Mo-promoted Rh/Al<sub>2</sub>O<sub>3</sub> 129

### Gas phase

Catalysis by hetropoly compounds. Part XXVI <sup>1</sup>. Gas phase synthesis of methyl *tert*-butyl ether over heteropolyacids 49

# Heteropolyacids

Catalysis by hetropoly compounds. Part XXVI <sup>1</sup>. Gas phase synthesis of methyl *tert*-butyl ether over heteropolyacids 49

 $\label{eq:High-resolution transmission electron microscopy} Evidence for kinetic and oxidative stabilization of Rh on Mo-promoted Rh/Al_2O_3 129$ 

#### Hydrogen

Evidence for kinetic and oxidative stabilization of Rh on Mo-promoted Rh/Al<sub>2</sub>O<sub>3</sub> 129

# Hydrogenation

Sn-promoting mechanism for ketone hydrogenation over  $Rh/SiO_2$  115

### Hydroxylation

Activation of dioxygen by copper complexes incorporated in molecular sieves 93

#### Image processing

Evidence for kinetic and oxidative stabilization of Rh on Mo-promoted Rh/Al<sub>2</sub>O<sub>3</sub> 129

#### Interfaces

Interfacial coordination chemistry. Current status and applications 147

#### Intermolecular isomerization mechanism

Butane isomerization over platinum promoted sulfated zirconia catalysts 35

#### Isotopic labelling

Butane isomerization over platinum promoted sulfated zirconia catalysts 35

#### Ketone

Sn-promoting mechanism for ketone hydrogenation over Rh/SiO<sub>2</sub> 115

#### Materials

Interfacial coordination chemistry. Current status and applications 147

#### Metal oxides

The influence of metal oxides on the activity and selectivity of transition metal catalysts 1

#### Methoxy species

A quantum-chemical study of para/orthotoluene alkylation by adsorbed methoxy species on zeolites 75

#### Methyl tert-butyl ether

Catalysis by hetropoly compounds. Part XXVI <sup>1</sup>. Gas phase synthesis of methyl *tert*-butyl ether over heteropolyacids 49

#### MgO

Defect processes at low coordinate surface sites of MgO and their role in the partial oxidation of hydrocarbons 103

#### Molybdenum

Evidence for kinetic and oxidative stabilization of Rh on Mo-promoted Rh/ $Al_2O_3$  129

#### Oxidation catalysis

Defect processes at low coordinate surface sites of MgO and their role in the partial oxidation of hydrocarbons 103

#### Pheno

Activation of dioxygen by copper complexes incorporated in molecular sieves 93

# Platinum

Butane isomerization over platinum promoted sulfated zirconia catalysts 35

#### Preparation

Interfacial coordination chemistry. Current status and applications 147

#### Propylene

Unique selectivity for the dimerization of propene on RhSn/SiO<sub>2</sub> catalysts: implications on the mechanism of C-C bond formation and cleavage on bimetallic catalysts 61

# Pseudoligand phase

Catalysis by hetropoly compounds. Part XXVI <sup>1</sup>. Gas phase synthesis of methyl *tert*-butyl ether over heteropolyacids 49

#### Rhodium

Unique selectivity for the dimerization of propene on RhSn/SiO<sub>2</sub> catalysts: implications on the mechanism of C-C bond formation and cleavage on bimetallic catalysts 61

Evidence for kinetic and oxidative stabilization of Rh on Mo-promoted Rh/Al<sub>2</sub>O<sub>3</sub> 129

#### Rh-Sn/SiO<sub>2</sub>

Sn-promoting mechanism for ketone hydrogenation over  $Rh/SiO_2$  115

#### Selectivity

The influence of metal oxides on the activity and selectivity of transition metal catalysts 1

#### Silica

Unique selectivity for the dimerization of propene on RhSn/SiO<sub>2</sub> catalysts: implications on the méchanism of C-C bond formation and cleavage on bimetallic catalysts 61

#### 3-substituted phenol

Zeolite catalysed synthesis of coumarin derivatives 87

#### Sulphated zirconia

Butane isomerization over platinum promoted sulfated zirconia catalysts 35

### Supported catalysts

Unique selectivity for the dimerization of propene on RhSn/SiO<sub>2</sub> catalysts: implications on the mechanism of C-C bond formation and cleavage on bimetallic catalysts 61

Evidence for kinetic and oxidative stabilization of Rh on Mo-promoted Rh/Al<sub>2</sub>O<sub>3</sub> 129

#### Surface modification

Evidence for kinetic and oxidative stabilization of Rh on Mo-promoted Rh/Al<sub>2</sub>O<sub>3</sub> 129

### Tin

 $\label{eq:continuous} Unique selectivity for the dimerization of propene on RhSn/SiO_2 catalysts: implications on the mechanism of C-C bond formation and cleavage on bimetallic catalysts 61$ 

#### Toluene

A quantum-chemical study of *para/ortho*toluene alkylation by adsorbed methoxy species on zeolites 75

### Transition metal catalysts

The influence of metal oxides on the activity and selectivity of transition metal catalysts 1

# Transition metal ions

Interfacial coordination chemistry. Current status and applications 147

# Tungsten

Catalysis by hetropoly compounds. Part XXVI <sup>1</sup>. Gas phase synthesis of methyl *tert*-butyl ether over heteropolyacids 49

### Tyrosinase

Activation of dioxygen by copper complexes incorporated in molecular sieves 93

#### $\alpha,\beta$ -unsaturated carboxylic acid

Zeolite catalysed synthesis of coumarin derivatives 87

#### Zeolite H-Beta

Zeolite catalysed synthesis of coumarin derivatives 87

### Zeolites

A quantum-chemical study of para/orthotoluene alkylation by adsorbed methoxy species on zeolites 75

# Zeozymes

Activation of dioxygen by copper complexes incorporated in molecular sieves 93

### Zirconia

Butane isomerization over platinum promoted sulfated zirconia catalysts 35

# L-DOPA

Activation of dioxygen by copper complexes incorporated in molecular sieves 93

# L-Tyrosine

Activation of dioxygen by copper complexes incorporated in molecular sieves 93