

Subject Index of Volume 93

- Alkylation
Study on the alkylation of benzene and 1-dodecene, 191
- Ammonia
Production of CO_x-free hydrogen for fuel cells via step-wise hydrocarbon reforming and catalytic dehydrogenation of ammonia, 69
- Ammonia oxidation
Optimization of heat transfer characteristics, flow distribution, and reaction processing for a microstructured reactor/heat-exchanger for optimal performance in platinum catalyzed ammonia oxidation, 201
- Anionic and cationic surfactant recovery
Anionic and cationic surfactant recovery from water using a multistage foam fractionator, 241
- Aspect ratio
On the influence of aspect ratio and distributor in gas fluidized beds, 151
- Asymmetric ceramic supports
Preparation and characterization of Pd–Cu composite membranes for hydrogen separation, 11
- Benzene
Study on the alkylation of benzene and 1-dodecene, 191
- Bidisperse catalyst
Thermal effects on effectiveness of catalysts having bidisperse pore size distributions, 143
- Biodegradability
Modelling vinasse/cotton waste ratio incubation for optimum composting, 233
- Carbon number distribution
Non-isothermal pyrolysis of waste automobile lubricating oil in a stirred batch reactor, 225
- Catalysis
Experimental study of hydrocarbon hydrogenation and dehydrogenation reactions in silicon microfabricated reactors of two different geometries, 217
- Catalyst
Membrane reactor for the production of hydrogen and higher hydrocarbons from methane over Ru/Al₂O₃ catalyst, 31
- Cerium oxide
Gold–ceria catalysts for low-temperature water-gas shift reaction, 41
- CFD models
CFD models for methanol synthesis three-phase reactors: reactor optimization, 103
- Chromatography
Equilibrium and kinetics properties of *p*-dichlorobenzene and toluene on silica gel in dense CO₂ by chromatography analysis, 163
- Circulating fluidized bed boiler
Particle population balance model for a circulating fluidized bed boiler, 121
- Co-feed experiments
Oxidation of ethane over vanadia-alumina-based catalysts: co-feed and redox experiments, 181
- CO-free hydrogen production
Production of CO_x-free hydrogen for fuel cells via step-wise hydrocarbon reforming and catalytic dehydrogenation of ammonia, 69
- Composite membrane
Preparation and characterization of Pd–Cu composite membranes for hydrogen separation, 11
- Compost
Modelling vinasse/cotton waste ratio incubation for optimum composting, 233
- Conversion
Experimental study of hydrocarbon hydrogenation and dehydrogenation reactions in silicon microfabricated reactors of two different geometries, 217
- Copper
Preparation and characterization of Pd–Cu composite membranes for hydrogen separation, 11
Gold–ceria catalysts for low-temperature water-gas shift reaction, 41
- Copper-based catalysts
Combined methanol reforming for hydrogen generation over monolithic catalysts, 91
- Cotton waste
Modelling vinasse/cotton waste ratio incubation for optimum composting, 233
- Countercurrent
A model for pressure drop and liquid saturation in gas–liquid cocurrent upflow through packed beds, 135
- m*-Cresol
On the solubility of phenol in *m*-cresol, 173
- Critical micelle concentration
Anionic and cationic surfactant recovery from water using a multistage foam fractionator, 241
- Cyclohexene
Experimental study of hydrocarbon hydrogenation and dehydrogenation reactions in silicon microfabricated reactors of two different geometries, 217
- Dehydrogenation
Experimental study of hydrocarbon hydrogenation and dehydrogenation reactions in silicon microfabricated reactors of two different geometries, 217
- Distributor
On the influence of aspect ratio and distributor in gas fluidized beds, 151
- 1-Dodecene
Study on the alkylation of benzene and 1-dodecene, 191
- Effectiveness factor
Thermal effects on effectiveness of catalysts having bidisperse pore size distributions, 143
- Electrocatalyst
Mesoporous platinum as a catalyst for oxygen electroreduction and methanol electrooxidation, 81
- Electroless plating
Preparation and characterization of Pd–Cu composite membranes for hydrogen separation, 11
- EOS
On the solubility of phenol in *m*-cresol, 173

- Equilibrium (EQ) stage model
Study on the alkylation of benzene and 1-dodecene, 191
- Ethane
Oxidation of ethane over vanadia-alumina-based catalysts: co-feed and redox experiments, 181
- Fluidization
On the influence of aspect ratio and distributor in gas fluidized beds, 151
- Fuel cell
Mesoporous platinum as a catalyst for oxygen electroreduction and methanol electrooxidation, 81
- Fuel cell vehicles
Combined methanol reforming for hydrogen generation over monolithic catalysts, 91
- Fuel processing
Fuel processing for portable power applications, 55
- Gas separation
Preparation and characterization of Pd–Cu composite membranes for hydrogen separation, 11
- Gas–liquid cocurrent
A model for pressure drop and liquid saturation in gas–liquid cocurrent upflow through packed beds, 135
- Gold
Gold–ceria catalysts for low-temperature water-gas shift reaction, 41
- Heat transfer
Optimization of heat transfer characteristics, flow distribution, and reaction processing for a microstructured reactor/heat-exchanger for optimal performance in platinum catalyzed ammonia oxidation, 201
- Heat-exchanger
Optimization of heat transfer characteristics, flow distribution, and reaction processing for a microstructured reactor/heat-exchanger for optimal performance in platinum catalyzed ammonia oxidation, 201
- High temperature
Preparation and characterization of Pd–Cu composite membranes for hydrogen separation, 11
- Hydrocarbons
Membrane reactor for the production of hydrogen and higher hydrocarbons from methane over Ru/Al₂O₃ catalyst, 31
- Hydrogen
Combined methanol reforming for hydrogen generation over monolithic catalysts, 91
- Hydrogen separation
Preparation and characterization of Pd–Cu composite membranes for hydrogen separation, 11
- Hydrogenation and dehydrogenation processes
Pd–Ag membrane reactors for water gas shift reaction, 23
- Integral observer
Integral observers for uncertainty estimation in continuous chemical reactors: algebraic-differential approach, 113
- Kinetic properties
Equilibrium and kinetics properties of *p*-dichlorobenzene and toluene on silica gel in dense CO₂ by chromatography analysis, 163
- Liquid saturation
A model for pressure drop and liquid saturation in gas–liquid cocurrent upflow through packed beds, 135
- Mass transport
Experimental study of hydrocarbon hydrogenation and dehydrogenation reactions in silicon microfabricated reactors of two different geometries, 217
- Membrane reactor
Membrane reactor for the production of hydrogen and higher hydrocarbons from methane over Ru/Al₂O₃ catalyst, 31
- MEMS
Experimental study of hydrocarbon hydrogenation and dehydrogenation reactions in silicon microfabricated reactors of two different geometries, 217
- Methane
Production of CO_x-free hydrogen for fuel cells via step-wise hydrocarbon reforming and catalytic dehydrogenation of ammonia, 69
- Methanol oxidation reaction
Mesoporous platinum as a catalyst for oxygen electroreduction and methanol electrooxidation, 81
- Methanol reforming
Combined methanol reforming for hydrogen generation over monolithic catalysts, 91
- Microreactor
Optimization of heat transfer characteristics, flow distribution, and reaction processing for a microstructured reactor/heat-exchanger for optimal performance in platinum catalyzed ammonia oxidation, 201
- Miniaturization
Experimental study of hydrocarbon hydrogenation and dehydrogenation reactions in silicon microfabricated reactors of two different geometries, 217
- Model catalysts
Production of CO_x-free hydrogen for fuel cells via step-wise hydrocarbon reforming and catalytic dehydrogenation of ammonia, 69
- Model uncertainties
Integral observers for uncertainty estimation in continuous chemical reactors: algebraic-differential approach, 113
- Monoliths
Combined methanol reforming for hydrogen generation over monolithic catalysts, 91
- Multistage foam fractionator
Anionic and cationic surfactant recovery from water using a multistage foam fractionator, 241
- Nanostructured ceria
Gold–ceria catalysts for low-temperature water-gas shift reaction, 41
- NEMCA
Selective oxidation of methane in an SOFC-type reactor: effect of applied potential, 3
- Noisy measurements
Integral observers for uncertainty estimation in continuous chemical reactors: algebraic-differential approach, 113
- Nonequilibrium (NEQ) stage model
Study on the alkylation of benzene and 1-dodecene, 191
- Non-isothermal
Thermal effects on effectiveness of catalysts having bidisperse pore size distributions, 143
- Optimum catalyst distribution
CFD models for methanol synthesis three-phase reactors: reactor optimization, 103
- Oxidation of ethane
Oxidation of ethane over vanadia-alumina-based catalysts: co-feed and redox experiments, 181
- Oxidative coupling of methane
Selective oxidation of methane in an SOFC-type reactor: effect of applied potential, 3
- Oxygen reduction reaction
Mesoporous platinum as a catalyst for oxygen electroreduction and methanol electrooxidation, 81
- Oxygen storage capacity
Gold–ceria catalysts for low-temperature water-gas shift reaction, 41

- Palladium
Preparation and characterization of Pd–Cu composite membranes for hydrogen separation, 11
- Palladium–copper alloy
Preparation and characterization of Pd–Cu composite membranes for hydrogen separation, 11
- Partial molar volume
Equilibrium and kinetics properties of *p*-dichlorobenzene and toluene on silica gel in dense CO₂ by chromatography analysis, 163
- Particle population balance
Particle population balance model for a circulating fluidized bed boiler, 121
- Pd–Ag membrane reactors
Pd–Ag membrane reactors for water gas shift reaction, 23
- Permeation
Pd–Ag membrane reactors for water gas shift reaction, 23
- Permselectivity
Pd–Ag membrane reactors for water gas shift reaction, 23
- Petroleum
Experimental study of hydrocarbon hydrogenation and dehydrogenation reactions in silicon microfabricated reactors of two different geometries, 217
- Phenol
On the solubility of phenol in *m*-cresol, 173
- Platinum
Mesoporous platinum as a catalyst for oxygen electroreduction and methanol electrooxidation, 81
- Polymer electrolyte fuel cell
Reaction and surface characterization studies of titania-supported Co, Pt and Co/Pt catalysts for the selective oxidation of CO in H₂-containing streams, 61
- Portable power applications
Fuel processing for portable power applications, 55
- Potassium doping
Oxidation of ethane over vanadia-alumina-based catalysts: co-feed and redox experiments, 181
- Pressure drop
A model for pressure drop and liquid saturation in gas–liquid cocurrent upflow through packed beds, 135
- Pyrolysis
Non-isothermal pyrolysis of waste automobile lubricating oil in a stirred batch reactor, 225
- Redox experiments
Oxidation of ethane over vanadia-alumina-based catalysts: co-feed and redox experiments, 181
- Robustness
Integral observers for uncertainty estimation in continuous chemical reactors: algebraic-differential approach, 113
- Selective oxidation
Reaction and surface characterization studies of titania-supported Co, Pt and Co/Pt catalysts for the selective oxidation of CO in H₂-containing streams, 61
- Selectivity
Experimental study of hydrocarbon hydrogenation and dehydrogenation reactions in silicon microfabricated reactors of two different geometries, 217
- Slurry bubble column reactors
CFD models for methanol synthesis three-phase reactors: reactor optimization, 103
- Solid oxide fuel cell
Selective oxidation of methane in an SOFC-type reactor: effect of applied potential, 3
- Solid–liquid equilibrium
On the solubility of phenol in *m*-cresol, 173
- Solubility
On the solubility of phenol in *m*-cresol, 173
- Step-wise reforming
Production of CO_x-free hydrogen for fuel cells via step-wise hydrocarbon reforming and catalytic dehydrogenation of ammonia, 69
- Stirred batch reactor
Non-isothermal pyrolysis of waste automobile lubricating oil in a stirred batch reactor, 225
- Suboxide
Reaction and surface characterization studies of titania-supported Co, Pt and Co/Pt catalysts for the selective oxidation of CO in H₂-containing streams, 61
- Supercritical fluid chromatography
Equilibrium and kinetics properties of *p*-dichlorobenzene and toluene on silica gel in dense CO₂ by chromatography analysis, 163
- Suspension catalytic distillation (SCD)
Study on the alkylation of benzene and 1-dodecene, 191
- Temperature-programmed desorption
Selective oxidation of methane in an SOFC-type reactor: effect of applied potential, 3
- TGA
Non-isothermal pyrolysis of waste automobile lubricating oil in a stirred batch reactor, 225
- Tritiated water
Pd–Ag membrane reactors for water gas shift reaction, 23
- Two-phase flow
A model for pressure drop and liquid saturation in gas–liquid cocurrent upflow through packed beds, 135
- Uncertainty estimation
Integral observers for uncertainty estimation in continuous chemical reactors: algebraic-differential approach, 113
- Vanadia-alumina-based catalysts
Oxidation of ethane over vanadia-alumina-based catalysts: co-feed and redox experiments, 181
- Vinasse
Modelling vinasse/cotton waste ratio incubation for optimum composting, 233
- Waste automobile lubricating oil
Non-isothermal pyrolysis of waste automobile lubricating oil in a stirred batch reactor, 225
- Water gas shift reaction
Pd–Ag membrane reactors for water gas shift reaction, 23
- Water-gas shift
Gold–ceria catalysts for low-temperature water-gas shift reaction, 41