

Subject Index of Volume 97

- Acetic acid
Pervaporation of acetic acid/water mixtures through carbon molecular sieve-filled PDMS membranes, 83
- Acoustic emission
Acoustic emission measurement of low velocity plunging jets to monitor bubble size, 11
- Adsorption
Improved fixed bed models for metal biosorption, 233
Biosorption of cadmium by brown, green, and red seaweeds, 249
- Air stripping
The air-phase mass transfer resistance in the lumen of a hollow fiber at low air flow, 69
- Airflow
The air-phase mass transfer resistance in the lumen of a hollow fiber at low air flow, 69
- Algae
Biosorption of cadmium by brown, green, and red seaweeds, 249
- Aluminum removal
Removal of aluminum from aqueous solutions using sodium di-(*n*-octyl) phosphinate, 225
- Ammonia
Effect of oxygen and water vapor on the removal of styrene and ammonia from nitrogen by non-pulse corona-discharge at elevated temperatures, 213
- Artificial neural networks
Hybrid process modeling and optimization strategies integrating neural networks/support vector regression and genetic algorithms: study of benzene isopropylation on Hbeta catalyst, 115
- Benzene isopropylation
Hybrid process modeling and optimization strategies integrating neural networks/support vector regression and genetic algorithms: study of benzene isopropylation on Hbeta catalyst, 115
- Bifurcation
Dynamic behavior of two-phase systems in physical equilibrium, 183
- Bimetallic
Temperature-programmed desorption of methanol and oxidation of methanol on Pt–Sn/Al₂O₃ catalysts, 161
- Biosorption
Biosorption of Zn(II) and Cu(II) by the indigenous *Thiobacillus thiooxidans*, 195
Improved fixed bed models for metal biosorption, 233
Biosorption of cadmium by brown, green, and red seaweeds, 249
- Breakthrough curve
Improved fixed bed models for metal biosorption, 233
- Bubble ignition
Explosions of oxygen bubbles in cyclohexane, 151
- Bubbly media
Explosions of oxygen bubbles in cyclohexane, 151
- CMS
Pervaporation of acetic acid/water mixtures through carbon molecular sieve-filled PDMS membranes, 83
- Copper oxide
CuO/NiO monolithic catalysts for NO_x removal from nitric acid plant flue gas, 1
- Corona-discharge
Effect of oxygen and water vapor on the removal of styrene and ammonia from nitrogen by non-pulse corona-discharge at elevated temperatures, 213
- CSTR
Dynamic behavior of two-phase systems in physical equilibrium, 183
- Cumene synthesis
Hybrid process modeling and optimization strategies integrating neural networks/support vector regression and genetic algorithms: study of benzene isopropylation on Hbeta catalyst, 115
- Cyclohexane
Explosions of oxygen bubbles in cyclohexane, 151
- Differentiated monolith
Modelling of catalytic monolith converters with low- and high-temperature NO_x storage compounds and differentiated washcoat, 131
- Dissociation constant
Biosorption of Zn(II) and Cu(II) by the indigenous *Thiobacillus thiooxidans*, 195
- Drop-size distribution
Non-invasive system and procedures for the characterization of liquid–liquid dispersions, 173
- Effect of oxygen
Effect of oxygen and water vapor on the removal of styrene and ammonia from nitrogen by non-pulse corona-discharge at elevated temperatures, 213
- Effect of water vapour
Effect of oxygen and water vapor on the removal of styrene and ammonia from nitrogen by non-pulse corona-discharge at elevated temperatures, 213
- Electrodes
Mass transfer enhancement at vibrating electrodes, 141
- Elevated temperature
Effect of oxygen and water vapor on the removal of styrene and ammonia from nitrogen by non-pulse corona-discharge at elevated temperatures, 213
- Enhancement
Mass transfer enhancement at vibrating electrodes, 141
- Equilibrium concentration
Biosorption of Zn(II) and Cu(II) by the indigenous *Thiobacillus thiooxidans*, 195
- Explosion
Explosions of oxygen bubbles in cyclohexane, 151
- Explosion hazard
Explosions of oxygen bubbles in cyclohexane, 151
- Filled PDMS membrane
Pervaporation of acetic acid/water mixtures through carbon molecular sieve-filled PDMS membranes, 83

- Fluidized bed
Modeling of fluidized bed reactor of ethylene polymerization, 27
- Forced systems
Dynamic behavior of two-phase systems in physical equilibrium, 183
- Gas–liquid two-phase flow
Shear stress-based modelling of steady state permeate flux in micro-filtration enhanced by two-phase flows, 257
- Genetic algorithms
Hybrid process modeling and optimization strategies integrating neural networks/support vector regression and genetic algorithms: study of benzene isopropylation on Hbeta catalyst, 115
- Germicidal lamp
Photocatalytic activities enhanced for decompositions of organic compounds over metal-photodepositing titanium dioxide, 203
- Hbeta catalyst
Hybrid process modeling and optimization strategies integrating neural networks/support vector regression and genetic algorithms: study of benzene isopropylation on Hbeta catalyst, 115
- Heavy metal
Biosorption of Zn(II) and Cu(II) by the indigenous *Thiobacillus thiooxidans*, 195
- Heavy metals
Improved fixed bed models for metal biosorption, 233
Biosorption of cadmium by brown, green, and red seaweeds, 249
- Hollow fiber
The air-phase mass transfer resistance in the lumen of a hollow fiber at low air flow, 69
- Hydroquinone
Effects of Pt and Ag on the photocatalytic degradation of 4-chlorophenol and its by-products, 241
- Langmuir isotherms
Biosorption of Zn(II) and Cu(II) by the indigenous *Thiobacillus thiooxidans*, 195
- Large-scale impellers
Power consumption and solid suspension performance of large-scale impellers in gas–liquid–solid three-phase stirred tank reactors, 103
- Leak detection system
Liquid pipeline leak detection system: model development and numerical simulation, 47
- Liquid pipelines
Liquid pipeline leak detection system: model development and numerical simulation, 47
- Mass transfer
Mass transfer enhancement at vibrating electrodes, 141
- Mass transfer resistance
The air-phase mass transfer resistance in the lumen of a hollow fiber at low air flow, 69
- Mathematical modelling
Modelling of catalytic monolith converters with low- and high-temperature NO_x storage compounds and differentiated washcoat, 131
- Maxwell–Stefan theory
Analytic solution of the Maxwell–Stefan equations for multicomponent permeation across a zeolite membrane, 37
- Membrane
The air-phase mass transfer resistance in the lumen of a hollow fiber at low air flow, 69
- Metal deposition
Photocatalytic reduction and deposition of metallic ions in aqueous phase, 77
- Metal recovery
Removal of aluminum from aqueous solutions using sodium di-(*n*-octyl) phosphinate, 225
- Metal-photodeposition
Photocatalytic activities enhanced for decompositions of organic compounds over metal-photodepositing titanium dioxide, 203
- Methanol
Temperature-programmed desorption of methanol and oxidation of methanol on Pt–Sn/Al₂O₃ catalysts, 161
- Microfiltration
Shear stress-based modelling of steady state permeate flux in micro-filtration enhanced by two-phase flows, 257
- Modelling
Shear stress-based modelling of steady state permeate flux in micro-filtration enhanced by two-phase flows, 257
- Moment equations
Modelling of fluidized bed reactor of ethylene polymerization, 27
- Monoliths
CuO/NiO monolithic catalysts for NO_x removal from nitric acid plant flue gas, 1
- Multi-phase systems
Dynamic behavior of two-phase systems in physical equilibrium, 183
- Nickel oxide
CuO/NiO monolithic catalysts for NO_x removal from nitric acid plant flue gas, 1
- Nitric acid plants
CuO/NiO monolithic catalysts for NO_x removal from nitric acid plant flue gas, 1
- Nitrogen oxides
CuO/NiO monolithic catalysts for NO_x removal from nitric acid plant flue gas, 1
- NO_x storage catalyst
Modelling of catalytic monolith converters with low- and high-temperature NO_x storage compounds and differentiated washcoat, 131
- Non-invasive dispersed phase imaging system
Non-invasive system and procedures for the characterization of liquid–liquid dispersions, 173
- Nonlinear programming
Optimal control of product quality for batch nylon-6,6 autoclaves, 87
- Non-stationary operation
Modelling of catalytic monolith converters with low- and high-temperature NO_x storage compounds and differentiated washcoat, 131
- Numerical simulation
Liquid pipeline leak detection system: model development and numerical simulation, 47
- Nylon-6,6
Optimal control of product quality for batch nylon-6,6 autoclaves, 87
- Optimal control
Optimal control of product quality for batch nylon-6,6 autoclaves, 87
- Optimization
Optimal control of product quality for batch nylon-6,6 autoclaves, 87
- Organic solvent
Explosions of oxygen bubbles in cyclohexane, 151
- Oxidation
Temperature-programmed desorption of methanol and oxidation of methanol on Pt–Sn/Al₂O₃ catalysts, 161
- Oxygen bubbles
Explosions of oxygen bubbles in cyclohexane, 151
- Packed bed
Improved fixed bed models for metal biosorption, 233
- Pervaporation
Pervaporation of acetic acid/water mixtures through carbon molecular sieve-filled PDMS membranes, 83
- Photocatalysis
Photocatalytic reduction and deposition of metallic ions in aqueous phase, 77

- Photocatalyst
Photocatalytic activities enhanced for decompositions of organic compounds over metal-photodepositing titanium dioxide, 203
Effects of Pt and Ag on the photocatalytic degradation of 4-chlorophenol and its by-products, 241
- Photocatalytic decomposition
Photocatalytic activities enhanced for decompositions of organic compounds over metal-photodepositing titanium dioxide, 203
- Photocatalytic reduction
Photocatalytic reduction and deposition of metallic ions in aqueous phase, 77
- Platinum–tin
Temperature-programmed desorption of methanol and oxidation of methanol on Pt–Sn/Al₂O₃ catalysts, 161
- Plunging jet
Acoustic emission measurement of low velocity plunging jets to monitor bubble size, 11
- Polyethylene polymerization
Modeling of fluidized bed reactor of ethylene polymerization, 27
- Power consumption
Power consumption and solid suspension performance of large-scale impellers in gas–liquid–solid three-phase stirred tank reactors, 103
- Pretreatment
Biosorption of Zn(II) and Cu(II) by the indigenous *Thiobacillus thiooxidans*, 195
- Process intensification
Mass transfer enhancement at vibrating electrodes, 141
- Process modeling
Hybrid process modeling and optimization strategies integrating neural networks/support vector regression and genetic algorithms: study of benzene isopropylation on Hbeta catalyst, 115
- Process monitoring
Acoustic emission measurement of low velocity plunging jets to monitor bubble size, 11
- Process optimization
Hybrid process modeling and optimization strategies integrating neural networks/support vector regression and genetic algorithms: study of benzene isopropylation on Hbeta catalyst, 115
- Reactor modeling
Modeling of fluidized bed reactor of ethylene polymerization, 27
- Seaweeds
Biosorption of cadmium by brown, green, and red seaweeds, 249
- Selective catalytic reduction
CuO/NiO monolithic catalysts for NO_x removal from nitric acid plant flue gas, 1
- Separation of alkanes
Analytic solution of the Maxwell–Stefan equations for multicomponent permeation across a zeolite membrane, 37
- Shock wave ignition
Explosions of oxygen bubbles in cyclohexane, 151
- Sodium di-(*n*-octyl) phosphinate
Removal of aluminum from aqueous solutions using sodium di-(*n*-octyl) phosphinate, 225
- Solid suspension
Power consumption and solid suspension performance of large-scale impellers in gas–liquid–solid three-phase stirred tank reactors, 103
- Steady state
Dynamic behavior of two-phase systems in physical equilibrium, 183
- Styrene
Effect of oxygen and water vapor on the removal of styrene and ammonia from nitrogen by non-pulse corona-discharge at elevated temperatures, 213
- Support vector regression
Hybrid process modeling and optimization strategies integrating neural networks/support vector regression and genetic algorithms: study of benzene isopropylation on Hbeta catalyst, 115
- Thiobacillus thiooxidans*
Biosorption of Zn(II) and Cu(II) by the indigenous *Thiobacillus thiooxidans*, 195
- Three-phase stirred tank
Power consumption and solid suspension performance of large-scale impellers in gas–liquid–solid three-phase stirred tank reactors, 103
- Titanium dioxide
Photocatalytic reduction and deposition of metallic ions in aqueous phase, 77
Photocatalytic activities enhanced for decompositions of organic compounds over metal-photodepositing titanium dioxide, 203
- Total organic carbon
Effects of Pt and Ag on the photocatalytic degradation of 4-chlorophenol and its by-products, 241
- TPD
Temperature-programmed desorption of methanol and oxidation of methanol on Pt–Sn/Al₂O₃ catalysts, 161
- Vibration
Mass transfer enhancement at vibrating electrodes, 141
- Wall shear stress
Shear stress-based modelling of steady state permeate flux in micro-filtration enhanced by two-phase flows, 257
- Wastewater treatment
Removal of aluminum from aqueous solutions using sodium di-(*n*-octyl) phosphinate, 225
- Water purification
Photocatalytic reduction and deposition of metallic ions in aqueous phase, 77
- Zeolite membrane permeation
Analytic solution of the Maxwell–Stefan equations for multicomponent permeation across a zeolite membrane, 37
- Ziegler–Natta
Modeling of fluidized bed reactor of ethylene polymerization, 27