

Subject Index of Volume 102

- Adomian polynomial
Approximate solution for the nonlinear model of diffusion and reaction in porous catalysts by the decomposition method, 1
- Adsorption
A generalized shrinking core model for multicomponent batch adsorption processes, 267
Organic dye adsorption on mesoporous hybrid gels, 277
- Adsorption isotherm
Organic dye adsorption on mesoporous hybrid gels, 277
- Air conditioning
Performance analysis of two-stage evaporative coolers, 255
- Airlift reactor
Influence of the gas distributor on the local hydrodynamic behavior of an external loop airlift reactor, 51
- Anaerobic processes
Studies on bimethanation of distillery wastes and its mathematical analysis, 193
- Axial evolution
Influence of the gas distributor on the local hydrodynamic behavior of an external loop airlift reactor, 51
- Biodegradation
Studies on bimethanation of distillery wastes and its mathematical analysis, 193
- Biogas
Studies on bimethanation of distillery wastes and its mathematical analysis, 193
- Biomethanation
Studies on bimethanation of distillery wastes and its mathematical analysis, 193
- Bioreactors
Studies on bimethanation of distillery wastes and its mathematical analysis, 193
- Biosorption
Biosorption of chromium(VI), cadmium(II) and copper(II) by *Pantoea* sp. TEM18, 249
- Breakage
Drop breakage in a coalescence-dispersion pulsed-sieve-plate extraction column, 185
- Bubble behavior
Influence of the gas distributor on the local hydrodynamic behavior of an external loop airlift reactor, 51
- Cadmium
Biosorption of chromium(VI), cadmium(II) and copper(II) by *Pantoea* sp. TEM18, 249
- CaO
A new sorbent, hydrogarnet, with purging HCl gas at high temperature, 99
- Catalyst
Improvement of the catalytic monoliths efficiency for CO oxidation using non-uniform active component distribution along the monolith length, 35
- Catalyst pellet
Approximate solution for the nonlinear model of diffusion and reaction in porous catalysts by the decomposition method, 1
- Catalytic combustion
Kinetic study of the combustion of methyl-ethyl ketone over α -hematite catalyst, 107
- Catalytic membrane reactor
Kinetic study of the combustion of methyl-ethyl ketone over α -hematite catalyst, 107
- Catechol
Removal of catechol from aqueous solution by advanced photo-oxidation process, 203
- Chromium
Biosorption of chromium(VI), cadmium(II) and copper(II) by *Pantoea* sp. TEM18, 249
- CO oxidation
Improvement of the catalytic monoliths efficiency for CO oxidation using non-uniform active component distribution along the monolith length, 35
- Coalescence-dispersion pulsed-sieve-plate extraction column (CDPSEC)
Drop breakage in a coalescence-dispersion pulsed-sieve-plate extraction column, 185
- Coatings
Estimation of the effective diffusion coefficients in open zeolite coatings, 209
- Cobalt-nickel catalyst
Performance of a Co-Ni catalyst for propane reforming under low steam-to-carbon ratios, 119
- Coherent spectral analysis
A study on intermittency phenomena in the impeller stream via digital particle image velocimetry (DPIV), 25
- Coke characterisation
Performance of a Co-Ni catalyst for propane reforming under low steam-to-carbon ratios, 119
- Coke formation
Performance of a Co-Ni catalyst for propane reforming under low steam-to-carbon ratios, 119
- Composite membranes
Composite membranes for hydrophobic pervaporation: study with the toluene–water system, 171
- Contact angle
Composite membranes for hydrophobic pervaporation: study with the toluene–water system, 171
- Copper
Biosorption of chromium(VI), cadmium(II) and copper(II) by *Pantoea* sp. TEM18, 249
- Correlation analysis
Transfer and weighting functions of a sewage treatment plant based on random input and output signal characteristics, 233
- Deactivation
Performance of a Co-Ni catalyst for propane reforming under low steam-to-carbon ratios, 119

- 2,4-Dibromophenol (DBP)
Design and operation of a solid polymer electrolyte reactor for electrochemical hydrodehalogenation, 161
- 2,4-Dichlorophenol (DCP)
Design and operation of a solid polymer electrolyte reactor for electrochemical hydrodehalogenation, 161
- Diffusion
Estimation of the effective diffusion coefficients in open zeolite coatings, 209
- Diffusion and reaction
Approximate solution for the nonlinear model of diffusion and reaction in porous catalysts by the decomposition method, 1
- Digital particle image velocimetry (DPIV)
A study on intermittency phenomena in the impeller stream via digital particle image velocimetry (DPIV), 25
- Distribution
Improvement of the catalytic monoliths efficiency for CO oxidation using non-uniform active component distribution along the monolith length, 35
- Distributor
Influence of the gas distributor on the local hydrodynamic behavior of an external loop airlift reactor, 51
- Drop size distribution
Drop breakage in a coalescence-dispersion pulsed-sieve-plate extraction column, 185
- Effective diffusivity
A generalized shrinking core model for multicomponent batch adsorption processes, 267
- Effective medium theory
Estimation of the effective diffusion coefficients in open zeolite coatings, 209
- Effectiveness
Approximate solution for the nonlinear model of diffusion and reaction in porous catalysts by the decomposition method, 1
- Electrochemical hydrodehalogenation (HDH)
Design and operation of a solid polymer electrolyte reactor for electrochemical hydrodehalogenation, 161
- Electrochemical porous reactor
An analysis of the influence of mass transfer on porous electrode performance, 83
- Electrochemical reactors
Electrochemical model of the integrated planar solid oxide fuel cell (IP-SOFC), 61
Mass transfer at gas sparged interface between two immiscible non-dispersed liquids in batch and continuous reactors, 131
- Enhancement
Dynamic analysis of mass transfer at vertically oscillating surfaces, 71
- Evaporative cooling
Performance analysis of two-stage evaporative coolers, 255
- Fe₂O₃
Kinetic study of the combustion of methyl-ethyl ketone over α -hematite catalyst, 107
- Fixation of HCl
A new sorbent, hydrogarnet, with purging HCl gas at high temperature, 99
- Fluidised bed reactor
Performance of a Co-Ni catalyst for propane reforming under low steam-to-carbon ratios, 119
- Fluid–solid reactions
Predicting reaction rates for non-catalytic fluid–solid reactions in presence of structural changes in the solid phase, 141
- Fuel cells
Electrochemical model of the integrated planar solid oxide fuel cell (IP-SOFC), 61
- Gas sparging
Mass transfer at gas sparged interface between two immiscible non-dispersed liquids in batch and continuous reactors, 131
- Gas–solid flow
Numerical study of gas–solid flow in a precalciner using kinetic theory of granular flow, 151
- Grain size distribution
Predicting reaction rates for non-catalytic fluid–solid reactions in presence of structural changes in the solid phase, 141
- H₂O₂
Photocatalytic and photochemical degradation of nitrobenzene using artificial ultraviolet light, 283
- Hybrid gel
Organic dye adsorption on mesoporous hybrid gels, 277
- Hydrogarnet
A new sorbent, hydrogarnet, with purging HCl gas at high temperature, 99
- Hydrophobic interaction
Organic dye adsorption on mesoporous hybrid gels, 277
- Indirect/direct evaporative cooling
Performance analysis of two-stage evaporative coolers, 255
- Intermittency in the impeller stream
A study on intermittency phenomena in the impeller stream via digital particle image velocimetry (DPIV), 25
- Kinetic modeling
Kinetic study of the combustion of methyl-ethyl ketone over α -hematite catalyst, 107
- Kinetic theory of granular flow
Numerical study of gas–solid flow in a precalciner using kinetic theory of granular flow, 151
- Kinetics
Performance of a Co-Ni catalyst for propane reforming under low steam-to-carbon ratios, 119
- Laminar flow
Pressure drops of single and two-phase flows through T-type micro-channel mixers, 11
- Laser Doppler anemometry
On the variation of precessional flow instabilities with operational parameters in stirred vessels, 217
- Liquid–liquid mass transfer
Mass transfer at gas sparged interface between two immiscible non-dispersed liquids in batch and continuous reactors, 131
- Local hydrodynamics
Influence of the gas distributor on the local hydrodynamic behavior of an external loop airlift reactor, 51
- Macro-instabilities
On the variation of precessional flow instabilities with operational parameters in stirred vessels, 217
- Macro-instability (MI)
A study on intermittency phenomena in the impeller stream via digital particle image velocimetry (DPIV), 25
- Mass transfer
Dynamic analysis of mass transfer at vertically oscillating surfaces, 71
Estimation of the effective diffusion coefficients in open zeolite coatings, 209
- Mass transfer coefficient
Enhancement of solid dissolution process, 45
A generalized shrinking core model for multicomponent batch adsorption processes, 267
- Mass transport
An analysis of the influence of mass transfer on porous electrode performance, 83

- Mathematical analysis
Composite membranes for hydrophobic pervaporation: study with the toluene–water system, 171
- Mathematical model
An analysis of the influence of mass transfer on porous electrode performance, 83
- Mechanical agitation
Enhancement of solid dissolution process, 45
- Mechanical vapor compression
Performance analysis of two-stage evaporative coolers, 255
- Mesoporous
Organic dye adsorption on mesoporous hybrid gels, 277
- Methyl-ethyl ketone
Kinetic study of the combustion of methyl-ethyl ketone over α -hematite catalyst, 107
- Microchannel
Pressure drops of single and two-phase flows through T-type micro-channel mixers, 11
- Micromixer
Pressure drops of single and two-phase flows through T-type micro-channel mixers, 11
- Mixing
On the variation of precessional flow instabilities with operational parameters in stirred vessels, 217
- Model
Approximate solution for the nonlinear model of diffusion and reaction in porous catalysts by the decomposition method, 1
- Modeling
A generalized shrinking core model for multicomponent batch adsorption processes, 267
- Modelling
Electrochemical model of the integrated planar solid oxide fuel cell (IP-SOFC), 61
- Monolith
Improvement of the catalytic monoliths efficiency for CO oxidation using non-uniform active component distribution along the monolith length, 35
- Nitrobenzene
Photocatalytic and photochemical degradation of nitrobenzene using artificial ultraviolet light, 283
- Numerical simulation
Numerical study of gas–solid flow in a precalciner using kinetic theory of granular flow, 151
- Numerical solution
Approximate solution for the nonlinear model of diffusion and reaction in porous catalysts by the decomposition method, 1
- Optimization
A generalized shrinking core model for multicomponent batch adsorption processes, 267
- n th order reaction
Approximate solution for the nonlinear model of diffusion and reaction in porous catalysts by the decomposition method, 1
- Organic dye
Organic dye adsorption on mesoporous hybrid gels, 277
- Pantoea* sp
Biosorption of chromium(VI), cadmium(II) and copper(II) by *Pantoea* sp. TEM18, 249
- Paraffin oil
Design and operation of a solid polymer electrolyte reactor for electrochemical hydrodehalogenation, 161
- Pervaporation
Composite membranes for hydrophobic pervaporation: study with the toluene–water system, 171
- Phenol
Photocatalytic and photochemical degradation of nitrobenzene using artificial ultraviolet light, 283
- Photocatalysis
Photocatalytic and photochemical degradation of nitrobenzene using artificial ultraviolet light, 283
- Photo-oxidation
Removal of catechol from aqueous solution by advanced photo-oxidation process, 203
- Population balance model
Drop breakage in a coalescence-dispersion pulsed-sieve-plate extraction column, 185
- Positron annihilations
Composite membranes for hydrophobic pervaporation: study with the toluene–water system, 171
- Precalciner
Numerical study of gas–solid flow in a precalciner using kinetic theory of granular flow, 151
- Precession
On the variation of precessional flow instabilities with operational parameters in stirred vessels, 217
- Pressure drop
Pressure drops of single and two-phase flows through T-type micro-channel mixers, 11
- Process intensification
Dynamic analysis of mass transfer at vertically oscillating surfaces, 71
- Propane steam reforming
Performance of a Co-Ni catalyst for propane reforming under low steam-to-carbon ratios, 119
- Radial profile
Influence of the gas distributor on the local hydrodynamic behavior of an external loop airlift reactor, 51
- Rate of solid dissolution
Enhancement of solid dissolution process, 45
- Shrinking core model
A generalized shrinking core model for multicomponent batch adsorption processes, 267
- Simulation
Improvement of the catalytic monoliths efficiency for CO oxidation using non-uniform active component distribution along the monolith length, 35
- Solid polymer electrolyte reactors
Design and operation of a solid polymer electrolyte reactor for electrochemical hydrodehalogenation, 161
- Spatially averaged vorticity
A study on intermittency phenomena in the impeller stream via digital particle image velocimetry (DPIV), 25
- Stationary linear dynamic plant
Transfer and weighting functions of a sewage treatment plant based on random input and output signal characteristics, 233
- Stirred reactor
A study on intermittency phenomena in the impeller stream via digital particle image velocimetry (DPIV), 25
- Stirred vessel
On the variation of precessional flow instabilities with operational parameters in stirred vessels, 217
- Structural changes
Predicting reaction rates for non-catalytic fluid–solid reactions in presence of structural changes in the solid phase, 141
- Thermogravimetry
Performance of a Co-Ni catalyst for propane reforming under low steam-to-carbon ratios, 119

- Thiele modulus
Approximate solution for the nonlinear model of diffusion and reaction in porous catalysts by the decomposition method, 1
- Three-dimensional electrode
An analysis of the influence of mass transfer on porous electrode performance, 83
- TiO₂
Photocatalytic and photochemical degradation of nitrobenzene using artificial ultraviolet light, 283
- TOC
Performance of a Co-Ni catalyst for propane reforming under low steam-to-carbon ratios, 119
- Toluene/water
Composite membranes for hydrophobic pervaporation: study with the toluene–water system, 171
- Transport phenomena
Electrochemical model of the integrated planar solid oxide fuel cell (IP-SOFC), 61
- Turbulence
On the variation of precessional flow instabilities with operational parameters in stirred vessels, 217
- Two-phase flow
Pressure drops of single and two-phase flows through T-type micro-channel mixers, 11
- Ultrasound and chemical reaction
Enhancement of solid dissolution process, 45
- Ultrasound energy dissipation rate
Enhancement of solid dissolution process, 45
- UV light
Photocatalytic and photochemical degradation of nitrobenzene using artificial ultraviolet light, 283
- Vibration
Dynamic analysis of mass transfer at vertically oscillating surfaces, 71
- Waste treatment
Studies on biomethanation of distillery wastes and its mathematical analysis, 193
- Waste water treatment
Biosorption of chromium(VI), cadmium(II) and copper(II) by *Pantoea* sp. TEM18, 249
- Wastewater
Removal of catechol from aqueous solution by advanced photo-oxidation process, 203
- Weighting and transfer functions
Transfer and weighting functions of a sewage treatment plant based on random input and output signal characteristics, 233
- Zeolites
Estimation of the effective diffusion coefficients in open zeolite coatings, 209