

Chemical Engineering Journal 67 (1997) 223-225

Subject Index of Volume 67

Absorbtion of carbon dioxide influence of surfactants on absorption of CO2 in a stirred tank with and without bubbling, 131 Acidity synthesis of methyl tert-butyl ether on sulfur-promoted ZrO₂, 199 Acid process experimental study and modelling of gelatin production from bone powder: elaboration of an overall kinetic scheme for the acid process, 55 Alkaline hydrolysis micellar-catalyzed alkaline hydrolysis of n-butyl acetate by cetyltrimethylammonium bromide, 19 Autoclave reactor ultrasonic measurement of solids concentration in an autoclave reactor at high temperature, 175 Axial dispersion distribution of staying times of liquid in a non-maintained liquid-solid edding flow: influence of the presence of solids, 83 Axial stress stretching flow tests on polymer-thickened motor oils using an accelerated-film technique, 65 Bubble frequency effect of bubble size and frequency on the permeate flux of gas sparged ultrafiltration with tubular membranes, 71 Bubble size effect of bubble size and frequency on the permeate flux of gas sparged ultrafiltration with tubular membranes, 71 n-Butyl acetate micellar-catalyzed alkaline hydrolysis of n-butyl acetate by cetyltrimethylammonium bromide, 19 Cetyltrimethylammonium bromide micellar-catalyzed alkaline hydrolysis of n-butyl acetate by cetyltrimethylammonium bromide, 19 Chaos on control of nonlinear system dynamics at unstable steady state, 103 Chemical methods comparison between physical and chemical methods for the measurement of mixing times, 167 Concentrated dispersions the influence of pH and temperature on the rheology and stability of aqueous titanium dioxide dispersions, 97 Control on control of nonlinear system dynamics at unstable steady state, 103 Dextran effect of bubble size and frequency on the permeate flux of gas sparged ultrafiltration with tubular membranes, 71 Distribution of staying times

distribution of staying times of liquid in a non-maintained liquid-solid edding flow: influence of the presence of solids, 83

Downstream processing separation of higher molecular weight organic compounds by pervaporation, 191 Droplet size viscosity and storage/loss moduli for mixtures of fine and coarse emulsions, 37 Dual impellers power consumption of a dual turbine-helical ribbon impeller mixer in ungassed conditions, 215 Emulsion viscosity and storage/loss moduli for mixtures of fine and coarse emulsions, 37 Equation of state extension of the Wong-Sandler mixing rule to the three-parameter Patel-Teja equation of state: Application up to the near-critical region, 27 Extensional viscosity stretching flow tests on polymer-thickened motor oils using an accelerated-film technique, 65 External-loop airlift reactor hydrodynamics and mass transfer studies in a novel external-loop airlift reactor, 205 Fault diagnosis process monitoring using non-linear statistical techniques, 181 Fluidized bed hydrodynamics and mass transfer studies in a novel external-loop airlift reactor, 205 Gas cleaning modelling the performance of venturi scrubbers, 9 Gas holdup hydrodynamics and mass transfer studies in a novel external-loop airlift reactor, 205 Gas sparging effect of bubble size and frequency on the permeate flux of gas sparged ultrafiltration with tubular membranes, 71 Gelatin production experimental study and modelling of gelatin production from bone powder: elaboration of an overall kinetic scheme for the acid process, 55 Glaserite production of glaserite and potassium sulphate from gypsum and sylvinite catalysed by ammonia, 1 Gypsum production of glaserite and potassium sulphate from gypsum and sylvinite catalysed by ammonia, 1 Hydrodynamic hydrodynamics and mass transfer studies in a novel external-loop airlift reactor, 205

Induction time kinetics of wet air oxidation of phenol, 115 Kenics static mixer the Kenics static mixer: a three-dimensional chaotic flow, 153 Kinetic modelling experimental study and modelling of gelatin production from bone powder: elaboration of an overall kinetic scheme for the acid process, 55 Kinetics kinetics of wet air oxidation of phenol, 115 pyrolysis of methylcyclohexane: kinetics and modelling, 123 Laser Doppler velocimetry velocity field macro-instabilities in an axially agitated mixing vessel, 139 Liquid circulation velocity hydrodynamics and mass transfer studies in a novel external-loop airlift reactor, 205 Liquid-solid suspension distribution of staying times of liquid in a non-maintained liquid-solid edding flow: influence of the presence of solids, 83 Load enhancement stretching flow tests on polymer-thickened motor oils using an accelerated-film technique, 65 Lubricants stretching flow tests on polymer-thickened motor oils using an accelerated-film technique, 65 Macro-instabilities velocity field macro-instabilities in an axially agitated mixing vessel, 139 Mass transfer micellar-catalyzed alkaline hydrolysis of n-butyl acetate by cetyltrimethylammonium bromide, 19 modelling of mass transfer of volatile organic compounds in polymer dispersions, 45 hydrodynamics and mass transfer studies in a novel external-loop airlift reactor, 205 Mass transfer coefficient influence of surfactants on absorption of CO2 in a stirred tank with and without bubbling, 131 Methylcyclohexane pyrolysis of methylcyclohexane: kinetics and modelling, 123 Micellar catalyst micellar-catalyzed alkaline hydrolysis of n-butyl acetate by cetyltrimethylammonium bromide, 19 Mixing rule extension of the Wong-Sandler mixing rule to the three-parameter Patel-Teja equation of state: Application up to the near-critical region, 27 Mixing time hydrodynamics and mass transfer studies in a novel external-loop airlift reactor, 205 Mixing times comparison between physical and chemical methods for the measurement of mixing times, 167 Modelling modelling of mass transfer of volatile organic compounds in polymer dispersions, 45 Modulus viscosity and storage/loss moduli for mixtures of fine and coarse emulsions, 37 MTBE

synthesis of methyl tert-butyl ether on sulfur-promoted ZrO_2 , 199 Multivariate statistics

process monitoring using non-linear statistical techniques, 181

Near-critical region extension of the Wong-Sandler mixing rule to the three-parameter Patel-Teja equation of state: Application up to the near-critical region, 27 Nonlinear dynamics on control of nonlinear system dynamics at unstable steady state, 103 Non-linear principal component analysis process monitoring using non-linear statistical techniques, 181 Non-Newtonian fluids power consumption of a dual turbine-helical ribbon impeller mixer in ungassed conditions, 215 Particle collection modelling the performance of venturi scrubbers, 9 Pervaporation separation of higher molecular weight organic compounds by pervaporation, 191 pН the influence of pH and temperature on the rheology and stability of aqueous titanium dioxide dispersions, 97 Phase behavior extension of the Wong-Sandler mixing rule to the three-parameter Patel-Teja equation of state: Application up to the near-critical region, 27 Phenol kinetics of wet air oxidation of phenol, 115 Physical methods comparison between physical and chemical methods for the measurement of mixing times, 167 Pitched blade turbine velocity field macro-instabilities in an axially agitated mixing vessel, 139 Polymer dispersion modelling of mass transfer of volatile organic compounds in polymer dispersions, 45 Polymerisation process monitoring using non-linear statistical techniques, 181 Potassium sulphate production of glaserite and potassium sulphate from gypsum and sylvinite catalysed by ammonia, 1 Power consumption power consumption of a dual turbine-helical ribbon impeller mixer in ungassed conditions, 215 Process monitoring process monitoring using non-linear statistical techniques, 181 Pseudo first order kinetics of wet air oxidation of phenol, 115 Pyrolysis modelling pyrolysis of methylcyclohexane: kinetics and modelling, 123 Rheology viscosity and storage/loss moduli for mixtures of fine and coarse emulsions, 37 the influence of pH and temperature on the rheology and stability of aqueous titanium dioxide dispersions, 97 Shrinking core model experimental study and modelling of gelatin production from bone powder: elaboration of an overall kinetic scheme for the acid process, 55 Solids concentration ultrasonic measurement of solids concentration in an autoclave reactor at high temperature, 175 Spectral analysis velocity field macro-instabilities in an axially agitated mixing vessel,

139

Stagnant zone

distribution of staying times of liquid in a non-maintained liquid-solid edding flow: influence of the presence of solids, 83

Stretching flow

stretching flow tests on polymer-thickened motor oils using an accelerated-film technique, 65

Stripping

modelling of mass transfer of volatile organic compounds in polymer dispersions, 45

Surfactant

influence of surfactants on absorption of CO2 in a stirred tank with and without bubbling, 131

Sylvinite

production of glaserite and potassium sulphate from gypsum and sylvinite catalysed by ammonia, 1

Thermal cracking

- pyrolysis of methylcyclohexane: kinetics and modelling, 123 Thermal effects
 - the influence of pH and temperature on the rheology and stability of aqueous titanium dioxide dispersions, 97

Three-dimensional chaotic flow

- the Kenics static mixer: a three-dimensional chaotic flow, 153 Titanium dioxide
 - the influence of pH and temperature on the rheology and stability of aqueous titanium dioxide dispersions, 97

Trouton ratio

stretching flow tests on polymer-thickened motor oils using an accelerated-film technique, 65

Tubular membrane

effect of bubble size and frequency on the permeate flux of gas sparged ultrafiltration with tubular membranes, 71

Turbulent flow

- distribution of staying times of liquid in a non-maintained liquid-solid edding flow: influence of the presence of solids, 83
- Two-liquid phase fermentation separation of higher molecular weight organic compounds by pervaporation, 191

Ultrafiltration

effect of bubble size and frequency on the permeate flux of gas sparged ultrafiltration with tubular membranes, 71

Ultrasonic

ultrasonic measurement of solids concentration in an autoclave reactor at high temperature, 175

Venturi scrubbers

modelling the performance of venturi scrubbers, 9

Viscosity

viscosity and storage/loss moduli for mixtures of fine and coarse emulsions, 37

Viscous mixing

power consumption of a dual turbine-helical ribbon impeller mixer in ungassed conditions, 215

Volumetric oxygen transfer coefficient

hydrodynamics and mass transfer studies in a novel external-loop airlift reactor, 205

Wavelet transform

velocity field macro-instabilities in an axially agitated mixing vessel, 139

Wet air oxidation

kinetics of wet air oxidation of phenol, 115

Zirconia

synthesis of methyl tert-butyl ether on sulfur-promoted ZrO₂, 199