

\* 本年度より早期公開の時期を基準にリストアップしています。

**AIChE Journal Vol. 66 (2020), Vol. 67 (2021)**

Investigation on the flow characteristics of a novel multi-blade combined agitator by time-resolved particle image velocimetry and large eddy simulation; Xu, Y; Wu, B; Luo, PC; 66(8), e16277 (2020), DOI: 10.1002/aic.16277

Flow characteristics of blade unit of a tridimensional rotational flow sieve tray under concurrent gas-liquid flow; Wang, HK; Tang, M; Wang, DW; Liu, Y; Zhang, YS; Hu, BS; Wang, RJ; Zhang, SF; 66(9), e16454 (2020), DOI: 10.1002/aic.16454

Hydrodynamic analysis of an axial impeller in a non-Newtonian fluid through particle image velocimetry; del Pozo, DF; Line, A; Van Geem, KM; Le Men, C; Nopens, I; 66(6), e16939 (2020), DOI: 10.1002/aic.16939

Determination method of the cavern boundary viscosity in a stirred tank with pseudoplastic fluid; Luan, DY; Wang, ZR; Wang, H; Wang, SS; Li, LB; Chen, YM; 66(5), e16941 (2020), DOI: 10.1002/aic.16941

Effect of dispersed phase feed time on the droplet size of Pickering emulsions produced in a stirred tank; Donmez, D; Ayranci, I; 66(6), e16942 (2020), DOI: 10.1002/aic.16942

Suspension of flexible cylinders in laminar liquid flow; Derksen, JJ; 66(6), e16952 (2020), DOI: 10.1002/aic.16952

Experimental and numerical investigation of sands and Geldart A biomass co-fluidization; Lu, LQ; Yu, J; Gao, X; Xu, YP; Shahnam, M; Rogers, WA; 66(6), e16969 (2020), DOI: 10.1002/aic.16969

Flow, suspension and mixing dynamics inDASGIPbioreactors, Part 2; Samaras, JJ; Ducci, A; Micheletti, M; 66(11), e16999 (2020), DOI: 10.1002/aic.16999

Flow, suspension, and mixing dynamics inDASGIPbioreactors: Part 1; Samaras, JJ; Micheletti, M; Ducci, A; 66(11), e17014 (2020), DOI: 10.1002/aic.17014

Local and overall gas holdup in an aerated coaxial mixing system containing a non-Newtonianfluid; Jamshidzadeh, M; Ein-Mozaffari, F; Lohi, A; 66(11), e17016 (2020), DOI: 10.1002/aic.17016

Improving mixing performance bycurved-bladestatic mixer; Mahmoodi, H; Razzaghi, K; Shahraki, F; 66(11), e17034 (2020), DOI: 10.1002/aic.17034

PODanalysis of oscillating grid turbulence in water and shear thinning polymer solution; Lacassagne, T; Simoens, S; EL Hajem, M; Champagne, JY; 67(1), e17044 (2021), DOI: 10.1002/aic.17044

A spectral approach of suspending solid particles in a turbulent stirred vessel; Giacomelli, JJ; van den Akker, HEA; 67(2), e17097 (2021), DOI: 10.1002/aic.17097

**Canadian Journal of Chemical Engineering Vol. 98 (2020), Vol. 99 (2021),**

Experimental methods in chemical engineering: Residence time distribution-RTD; Berard, A; Blais, B; Patience, GS; 98(4), 848-867 (2020), DOI: 10.1002/cjce.23711

Experimental investigation on micromixing characteristics of coaxial mixers in viscous system; Liu, BQ; Gao, PF; Sun, N; Zhang, YK; Jin, ZJ; Sunden, B; 98(8), 1815-1824 (2020), DOI: 10.1002/cjce.23730

ACFD-DEMapproach to study the breakup of fractal agglomerates in an internal mixer; Frungieri, G; Boccardo, G; Buffo, A; Marchisio, D; Karimi-Varzaneh, HA; Vanni, M; 98(9), 1880-1892 (2020), DOI: 10.1002/cjce.23773

Turbulent blend times with off-centre v-mounted agitators; Chen, P; Myers, KJ; Janz, EE; Brown, NA; 98(11), 2360-2367 (2020), DOI: 10.1002/cjce.23772

Pyrolysis shaker reactor for the production of biochar; Careaga, FJS; Porat, A; Briens, L; Briens, C; 98(11), 2417-2424 (2020), DOI: 10.1002/cjce.23771

Adding active particles for overall aggregation in a mixing tank: A computational study; Lim, JW; Derksen, JJ; 98(11), 2451-2460 (2020), DOI: 10.1002/cjce.23764

Suspension pattern and rising height of sedimentary particles with low concentration in a mechanically stirred vessel; Tokura, Y; Miyagawa, K; Uddin, MA; Kato, Y; 99(1), 410-420 (2021), DOI: 10.1002/cjce.23842

Numerical study of mixing of cavitating flows in a Venturi tube; Shi, HB; Liu, QX; Nikrityuk, P; 99(3), 813-828 (2021), DOI: 10.1002/cjce.23898

Analysis of premixed and non-premixed co-injection of volatile gas in an industrial indirect pyrolysis plant; Khodaei, H; Olson, C; Nikrityuk, PA; 99(5), 1186-1198 (2021), DOI: 10.1002/cjce.23915

Experimental study on aeration efficiency in a pilot-scale decelerated oxidation ditch equipped with fine bubble diffusers and impellers; Xu, XF; Wei, WZ; Liu, FX; Wei, W; Liu, ZJ; 99(6), 1410-1420 (2021), DOI: 10.1002/cjce.23919

## **Chemical Engineering Communications Vol. 207 (2020), Vol. 208 (2021)**

Investigating the effect of micro-riblets on the flow and micro-mixing behavior in micro-channel; Ling, FWM; Khleif, AA; Abdulbari, HA; 208(5), 673-686 (2021), DOI: 10.1080/00986445.2020.1715959

Computational investigation of flow field, mixing and reaction in a T-shaped microchannel; Madana, VST; Basheer, AA; 208(6), 903-913 (2021), DOI: 10.1080/00986445.2020.1865936

Comparison of mixing performance between stationary-baffle and moving-baffle batch oscillatory baffled columns via numerical modeling; Sutherland, K; Pakzad, L; Fatehi, P; DOI: 10.1080/00986445.2020.1823841

Influence of the hydrodynamics and the reaction-rate formulation in modeling infinitely fast irreversible reactions in a turbulent unbaffled chemical reactor; Saikali, E; Bois, G; Rodio, MG; Bieder, U; Bertrand, M; Leterrier, N; Dolias, Y; DOI: 10.1080/00986445.2020.1864627

Predicting phase inversion in agitated dispersions with machine learning algorithms; Maffi, JM; Estenoz, DA; DOI: 10.1080/00986445.2020.1815715

## **Chemical Engineering Journal Vol. 382-401 (2020)**

Mixing intensification under turbulent conditions in a high pressure microreactor; Zhang, F; Marre, S; Erriguible, A; 382, 122859 (2020), DOI: 10.1016/j.cej.2019.122859

Experimental and CFD study of a new one-pot reactor for hybrid catalysis; Frey, M; Violet, L; Richard, D; Fongarland, P; 383, 122958 (2020), DOI: 10.1016/j.cej.2019.122958

Investigation of the detrimental effect of the rotational speed on gas holdup in non-Newtonian fluids with Scaba-anchor coaxial mixer: A paradigm shift in gas-liquid mixing; Jegatheeswaran, S; Ein-Mozaffari, F; 383, 123118 (2020), DOI: 10.1016/j.cej.2019.123118

Impact of computational domain discretization and gradient limiters on CFD results concerning liquid mixing in a helical pipe; Mansour, M; Khot, P; Kovats, P; Thevenin, D; Zahringer, K; Janiga, G; 383, 123121 (2020), DOI: 10.1016/j.cej.2019.123121

Effects of sloshing gas-liquid interface on dynamics of meandering bubble plumes and mixing in a shallow vessel: PIV and PLIF

measurements; Thaker, AH; Bhujbal, SV; Buwa, VV; 386, 122036 (2020), DOI: 10.1016/j.ccej.2019.122036

Hydrodynamics in unbaffled liquid-solid stirred tanks with free surface studied by DEM-VOF method; Kang, QQ; He, DP; Zhao, N; Feng, X; Wang, JT; 386, 122846 (2020), DOI: 10.1016/j.ccej.2019.122846

Effect of geometry on engulfment flow regime in T-jet reactors; Zhang, JW; Li, WF; Xu, XL; El Hassan, M; Liu, HF; Wang, FC; 387, 124148 (2020), DOI: 10.1016/j.ccej.2020.124148

Green, fast, and scalable production of reduced graphene oxide via Taylor vortex flow; Nam, KH; Kim, UJ; Jeon, MH; Lee, TR; Yu, J; You, NH; Kim, YK; Suk, JW; Ku, BC; 391, 123482 (2020), DOI: 10.1016/j.ccej.2019.123482

Multi-objective optimization of liquid-liquid mixing in helical pipes using Genetic Algorithms coupled with Computational Fluid Dynamics; Mansour, M; Zahringer, K; Nigam, KDP; Thevenin, D; Janiga, G; 391, 123570 (2020), DOI: 10.1016/j.ccej.2019.123570

Mixing enhancement induced by viscoelastic micromotors in microfluidic platforms; Zizzari, A; Cesaria, M; Bianco, M; del Mercato, LL; Carraro, M; Bonchio, M; Rella, R; Arima, V; 391, 123572 (2020), DOI: 10.1016/j.ccej.2019.123572

Mixing enhancement via a serpentine micromixer for real-time activation of carboxyl; Shi, HH; Nie, KX; Dong, B; Chao, LM; Gao, FX; Ma, MY; Long, MQ; Liu, ZC; 392, 123642 (2020), DOI: 10.1016/j.ccej.2019.123642

The role of flow features and chemical kinetics on the reaction yield in a T-shaped micro-reactor; Mariotti, A; Antognoli, M; Galletti, C; Mauri, R; Salvetti, MV; Brunazzi, E; 396, 125223 (2020), DOI: 10.1016/j.ccej.2020.125223

Mixing in flows past confined microfluidic cylinders: Effects of pin and fluid interface offsetting; Zhang, SG; Cagney, N; Lacassagne, T; Balabani, S; Naveira-Cotta, CP; Tiwari, MK; 397, 125358 (2020), DOI: 10.1016/j.ccej.2020.125358

A new scale-up method for competitive chemical model reactions based on complete similarity; Rehage, H; Bartsch, M; Kind, M; 400, 125763 (2020), DOI: 10.1016/j.ccej.2020.125763

Process intensification of a photochemical oxidation reaction using a Rotor-Stator Spinning Disk Reactor: A strategy for scale up; Chaudhuri, A; Kuijpers, KPL; Hendrix, RBJ; Shivaprasad, P; Hacking, JA; Emanuelsson, EAC; Noel, T; van der Schaaf, J; 400, 125875 (2020), DOI: 10.1016/j.ccej.2020.125875

Analysis of power consumption for gas dispersion in non-Newtonian fluids with a coaxial mixer: New correlations for Reynolds and power numbers; Jamshidzadeh, M; Kazemzadeh, A; Ein-Mozaffari, F; Lohi, A; 401, 126002 (2020), DOI: 10.1016/j.ccej.2020.126002

## **Chemical Engineering and Processing: Process Intensification Vol. 147-157 (2020)**

Turbulent mixing enhancement of thermal cracking coil by Hollow Cross Disk internal; Bai, DH; Zong, Y; Zhou, MM; Zhao, L; 147, 107726 (2020), DOI: 10.1016/j.ccep.2019.107726

Numerical investigation on mixing intensification of ferrofluid and deionized water inside a microchannel using magnetic actuation generated by embedded microcoils for lab-on-chip systems; Saadat, M; Shafii, MB; Ghassemi, M; 147, 107727 (2020), DOI: 10.1016/j.ccep.2019.107727

CFD evaluation of mass transfer distribution heterogeneity along the membrane-liquid interface in stirred submerged membrane bioreactors; Vlaev, SD; Dzhonova-Atanasova, D; Tsibranska, I; 147, 107738 (2020), DOI: 10.1016/j.ccep.2019.107738

Active and passive micromixers: A comprehensive review; Bayareh, M; Ashani, MN; Usefian, A; 147, 107771 (2020), DOI: 10.1016/j.ccep.2019.107771

Macromixing study for various designs of impellers in a stirred vessel; Ghotli, RA; Shafeeyan, MS; Abbasi, MR; Raman, AAA; Ibrahim, S; 148, 107794 (2020), DOI: 10.1016/j.ccep.2019.107794

Modified scaba 6SRGT impellers for process intensification: Cavern size and energy saving when stirring viscoplastic fluids; Ameer, H;

Vial, C; 148, 107795 (2020), DOI: 10.1016/j.cep.2019.107795

Performance of a dual helical ribbon impeller in a two-phase (gas-liquid) stirred tank reactor; Amirafabi, M; Khiadani, M; Mohammed, HA; 148, 107811 (2020), DOI: 10.1016/j.cep.2020.107811

Simulation analysis on vaporizer/mixer performance of the high-pressure SCR system in a marine diesel; Zhu, YQ; Li, TH; Xia, C; Feng, YM; Zhou, S; 148, 107819 (2020), DOI: 10.1016/j.cep.2020.107819

CFD modelling of turbulent liquid - liquid dispersion in a static mixer; Vikhansky, A; 149, 107840 (2020), DOI: 10.1016/j.cep.2020.107840

A horizontal axis rotating disc contactor combining narrow mixing space and oil-wet slits; Lyu, L; Liang, B; Liu, CJ; Tang, SY; Yue, HR; 150, 107903 (2020), DOI: 10.1016/j.cep.2020.107903

Liquid-liquid microextraction in a rotating microchannel extractor; Ma, R; Fan, CX; Wang, YB; Luo, JH; Li, J; Ji, YZ; 151, 107916 (2020), DOI: 10.1016/j.cep.2020.107916

Intensification effects of stirred fluid on liquid?solid, gas?liquid and gas?solid interactions in flotation: A review; Li, DL; Wang, HN; Yang, L; Yan, XK; Wang, LJ; Zhang, HJ; 152, 107943 (2020)

Scale-up of continuous microcapsule production; Gobert, SRL; Kuhn, S; Teixeira, RFA; Braeken, L; Thomassen, LCJ; 153, 107989 (2020), DOI: 10.1016/j.cep.2020.107989

Mixing efficiency enhancement by a modified curved micromixer: A numerical study; Mashaei, PR; Asiaei, S; Hosseinalipour, SM; 154, 108006 (2020), DOI: 10.1016/j.cep.2020.108006

Newly modified curved-bladed impellers for process intensification: Energy saving in the agitation of Hershel-Bulkley fluids; Ameer, H; 154, 108009 (2020), DOI: 10.1016/j.cep.2020.108009

Continuous flow semi-hydrogenation of alkynes using 3D printed catalytic static mixers; Kundra, M; Sultan, BB; Ng, D; Wang, YX; Alexander, DLJ; Nguyen, X; Xie, ZL; Hornung, CH; 154, 108018 (2020), DOI: 10.1016/j.cep.2020.108018

Intensification of gas dispersion in pseudoplastic fluids with coaxial mixers; Jamshidzadeh, M; Kazemzadeh, A; Ein-Mozaffari, F; Lohi, A; 155, 108058 (2020), DOI: 10.1016/j.cep.2020.108058

CFD modelling of the effects of local turbulence intensification on synthesis of LiFePO<sub>4</sub> particles in an impinging jet reactor; Chen, LM; Dong, B; Guo, YQ; Yang, XG; Li, G; 155, 108065 (2020), DOI: 10.1016/j.cep.2020.108065

Use of Gas Helicity as an Indicator to Evaluate Impeller Design and its Gas Holdup: Proof of Concept for the Intensification of Gas-Liquid Mixing; Jegatheeswaran, S; Ein-Mozaffari, F; 156, 108091 (2020), DOI: 10.1016/j.cep.2020.108091

CFD Based Nozzle Design for a Multijet Mixer; Gyurik, L; Ulbert, Z; Molnar, B; Varga, T; Chovan, T; Egedy, A; 157, 108121 (2020), DOI: 10.1016/j.cep.2020.108121

Process intensification through staggered herringbone micro-channels: Mass transfer enhancement to a reactive wall; Cantu-Perez, A; Lopez-Guajardo, EA; Romero-Flores, M; Nigam, KDP; Gavriilidis, A; Montesinos-Castellanos, A; 157, 108154 (2020), DOI: 10.1016/j.cep.2020.108154

## **Chemical Engineering Research and Design Vol. 153-164 (2020)**

Validation of the pressure drop-flow rate relationship predicted by lattice Boltzmann simulations for immiscible liquid-liquid flows through SMX static mixers; Leclaire, S; Vidal, D; Fradette, L; Bertrand, F; 153, 350-368 (2020), DOI: 10.1016/j.cherd.2019.10.035

A review of in-line and on-line measurement techniques to monitor industrial mixing processes; Bowler, AL; Bakalis, S; Watson, NJ; 153, 463-495 (2020), DOI: 10.1016/j.cherd.2019.10.045

Mixing indices allow scale-up of stirred tank slurry reactor conditions for equivalent homogeneity; Harrison, STL; Kotsiopoulos, A; Stevenson, R; Cilliers, JJ; 153, 865-874 (2020), DOI: 10.1016/j.cherd.2019.10.049

Agitating cylindrical particles in laminar liquid flow; Derksen, JJ; 154, 11-20 (2020), DOI: 10.1016/j.cherd.2019.12.002

Investigation of gas-liquid dispersion and mass transfer performance of wide-viscosity-range impellers in water solutions of xanthan gum; Liu, BQ; Xiao, Q; Gao, PF; Sunden, B; Fan, FY; 154, 60-69 (2020), DOI: 10.1016/j.cherd.2019.12.005

Liquid-solid two-phase jet in a turbulent crossflow: Experiments and simulations; Octau, C; Dbouk, T; Watremez, M; Meresse, D; Lippert, M; Schiffler, J; Keirsbulck, L; Dubar, L; 155, 156-171 (2020), DOI: 10.1016/j.cherd.2020.01.004

Enhancement of photocatalytic degradation of ibuprofen contained in water using a static mixer; Nunez-Flores, A; Sandoval, A; Mancilla, E; Hidalgo-Millan, A; Ascanio, G; 156, 54-63 (2020), DOI: 10.1016/j.cherd.7070.01.018

Characterization method for mass mixing in batch reactors based on temperature profiles; Camps, L; Moens, L; Groth, U; Braeken, L; Kuhn, S; Thomassen, LCJ; 156, 300-310 (2020), DOI: 10.1016/j.cherd.2020.02.004

Parametric study of the Crossing elongation effect on the mixing performances using short Two-Layer Crossing Channels Micromixer (TLCCM) geometry; Amar, K; Embarek, D; Sofiane, K; 158, 33-43 (2020), DOI: 10.1016/j.cherd.2020.03.010

Prediction of the growth kinetics and agglomeration mechanisms using a mixer torque rheometer; Franceschinis, E; Schmid, F; Baggio, R; Dal Zotto, M; Realdon, N; Santomaso, AC; 159, 328-338 (2020), DOI: 10.1016/j.cherd.2020.04.024

Comparative assessment of mixing in compact coiled flow inverters under diffusion free laminar flow condition; Jha, VK; Sharma, L; Roy, S; Nigam, KDP; Bhaumik, SK; 159, 455-467 (2020), DOI: 10.1016/j.cherd.2020.04.028

Experimental study of micromixing in curved tube reactors by the reactive tracer method; Rozen, A; Kopytowski, J; 160, 335-350 (2020), DOI: 10.1016/j.cherd.2020.04.042

Bubble size distribution in aerated stirred tanks: Quantifying the effect of impeller-stator design; Mesa, D; Brito-Parada, PR; 160, 356-369 (2020), DOI: 10.1016/j.cherd.2020.05.029

Rheological profile in mixer torque rheometer of samples containing furazolidone and different binders; Belem, BR; Ferraz, HG; 160, 533-539 (2020), DOI: 10.1016/j.cherd.7070.06.077

Mass transfer in coalescent batch fermenters with mechanical agitation; Kracik, T; Petricek, R; Moucha, T; 160, 587-592 (2020), DOI: 10.1016/j.cherd.2020.03.015

Mixing enhancement through a micromixer using topology optimization; Dehghani, T; Moghanlou, FS; Vajdi, M; Asl, MS; Shokouhimehr, M; Mohammadi, M; 161, 187-196 (2020), DOI: 10.1016/j.cherd.2020.07.008

Chemical reactor/compounding vessel fingerprinting: Scale-up/down considerations for homogeneous and heterogeneous mixing using computational fluid dynamics; Pohar, A; Naneh, O; Bajec, D; Likozar, B; 163, 125-137 (2020), DOI: 10.1016/j.cherd.2020.08.024

Diffusive lagrangian mixing simulation; Matos, J; Dias, MM; Lopes, JCB; Santos, RJ; 163, 307-319 (2020), DOI: 10.1016/j.cherd.2020.09.010

Design and mixing performance characterization of a mini-channel mixer with nature-inspired geometries; Tarlet, D; Fan, YL; Luo, LG; 164, 230-239 (2020), DOI: 10.1016/j.cherd.2020.09.026

Crystallization process modifications to address polymorphic and particle size challenges in early stage development of an API salt; Abhishek, MS; Hazra, D; Steele, G; Pal, S; 164, 400-411 (2020), DOI: 10.1016/j.cherd.2020.09.021

Antisolvent crystallization intensified by a jet crystallizer and a method for investigating crystallization kinetics; Wu, B; Li, J; Li, CH; He, JX; Luo, PC; 211, 115259 (2020), DOI: 10.1016/j.ces.2019.115259

Fully resolved modelling and simulation of micromixing in confined impinging jets; Brito, MSCA; Dias, MM; Santos, RJ; Lopes, JCB; Fonte, CP; 211, 115299 (2020), DOI: 10.1016/j.ces.2019.115299

Simulation of flow and mixing for highly viscous fluid in a twin screw extruder with a conveying element using parallelized smoothed particle hydrodynamics; Dong, TW; Jiang, SL; Wu, JC; Liu, HS; He, YD; 212, 115311 (2020), DOI: 10.1016/j.ces.2019.115311

Novel scale-up strategy based on three-dimensional shear space for animal cell culture; Li, C; Teng, XN; Peng, HD; Yi, XP; Zhuang, YP; Zhang, SL; Xia, JY; 212, 115329 (2020), DOI: 10.1016/j.ces.2019.115329

Flow behaviour of an agitated tubular reactor using a novel dynamic mesh based CFD model; He, Y; Bayly, AE; Hassanpour, A; Fairweather, M; Muller, F; 212, 115333 (2020), DOI: 10.1016/j.ces.2019.115333

Deformation of gas-liquid interfaces in a non-Newtonian fluid at high throughputs inside a microfluidic device and effect of an expansion on bubble breakup mechanisms; Sepulveda, J; Montillet, A; Della Valle, D; Loisel, C; Riaublanc, A; 213, 115377 (2020), DOI: 10.1016/j.ces.2019.115377

Hydrodynamics of gas-liquid dispersion in transparent Sulzer static mixers SMX (TM); Scala, M; Garnet, L; Malbec, LM; Li, HZ; 213, 115398 (2020), DOI: 10.1016/j.ces.2019.115398

Optimal Reynolds number for liquid-liquid mixing in helical pipes; Mansour, M; Khot, P; Thevenin, D; Nigam, KDP; Zahringer, K; 214, 114522 (2020), DOI: 10.1016/j.ces.2018.09.046

A non-equilibrium molecular dynamics study of subcritical, supercritical and transcritical mixing of liquid-gas systems; Rahmani, F; Weathers, T; Hosangadi, A; Chiew, YC; 214, 115424 (2020), DOI: 10.1016/j.ces.2019.115424

Validation of the hydrodynamics in a turbulent un-baffled stirred tank: A necessity for vortex-reactor precipitation studies; Saikali, E; Rodio, MG; Bois, G; Bieder, U; Leterrier, N; Bertrand, M; Dolias, Y; 214, 115426 (2020), DOI: 10.1016/j.ces.2019.115426

A multiple-outlet adaptive boundary condition for Eulerian-Eulerian multiphase numerical simulation; Fan, DD; Tan, W; Zhu, GR; 214, 115447 (2020), DOI: 10.1016/j.ces.2019.115447

Simultaneous measurements of liquid velocity and tracer concentration in a continuous flow stirred tank; Paglianti, A; Montante, G; 216, 115495 (2020), DOI: 10.1016/j.ces.2020.115495

Investigations on the effect of tip clearance gap and inducer on the transport of air-water two-phase flow by centrifugal pumps; Parikh, T; Mansour, M; Thevenin, D; 218, 115554 (2020), DOI: 10.1016/j.ces.2020.115554

Rapid production of biodiesel in a microchannel reactor at room temperature by enhancement of mixing behaviour in methanol phase using volume of fluid model; Laziz, AM; KuShaari, K; Azeem, B; Yusup, S; Chin, J; Denecke, J; 219, 115532 (2020), DOI: 10.1016/j.ces.2020.115532

Mixing performance in continuous oscillatory baffled reactors; Avila, M; Fletcher, DF; Poux, M; Xuereb, C; Aubin, J; 219, 115600 (2020), DOI: 10.1016/j.ces.2020.115600

Mass transfer in a single-use angled-shaft aerated stirred bioreactor applicable for animal cell culture; Kazemzadeh, A; Elias, C; Tamer, M; Lohi, A; Ein-Mozaffari, F; 219, 115606 (2020), DOI: 10.1016/j.ces.2020.115606

Numerical simulation of the mixing process in a soft elastic reactor with bionic contractions; Zou, JS; Xiao, J; Zhang, Y; Li, CY; Chen, XD; 220, 115623 (2020), DOI: 10.1016/j.ces.2020.115623

Review and implementation of CFD-DEM applied to chemical process systems; Golshan, S; Sotudeh-Gharebagh, R; Zarghami, R; Mostoufi, N; Blais, B; Kuipers, JAM; 221, 115646 (2020), DOI: 10.1016/j.ces.2020.115646

Numerical study of flow mixing and heat transfer in helical pipes, coiled flow inverters and a novel coiled configuration; Mansour, M; Thevenin, D; Zahringer, K; 221, 115690 (2020), DOI: 10.1016/j.ces.2020.115690

Numerical simulation of gas-liquid flows in a centrifugal rotor; Stel, H; Ofuchi, EM; Chiva, S; Morales, REM; 221, 115692 (2020), DOI: 10.1016/j.ces.2020.115692

Mixing dynamics in an uncovered unbaffled stirred tank using Large-Eddy Simulations and a passive scalar transport equation; Ramirez-Cruz, J; Salinas-Vazquez, M; Ascanio, G; Vicente-Rodriguez, W; Lagarza-Cortes, C; 222, 115658 (2020), DOI: 10.1016/j.ces.2020.115658

Simulation of micromixing in a T-mixer under laminar flow conditions; Fonte, CP; Fletcher, DF; Guichardon, P; Aubin, J; 222, 115706 (2020), DOI: 10.1016/j.ces.2020.115706

A theory for pressures in cylindrical silos under concentric mixed flow; Sadowski, AJ; Rotter, JM; Nielsen, J; 223, 115748 (2020), DOI: 10.1016/j.ces.2020.115748

Hysteresis effect of propeller jet flows in viscoelastic fluids: Steady state flow patterns; Cao, C; Kraume, M; 223, 115750 (2020), DOI: 10.1016/j.ces.2020.115750

Numerical analysis on droplet mixing induced by microwave heating: Decoupling of influencing physical properties; Cui, WJ; Yesiloz, G; Ren, CL; 224, 115791 (2020)

A quadrature-based conditional moment closure for mixing-sensitive reactions; Ilgun, AD; Passalacqua, A; Fox, RO; 226, 115831 (2020), DOI: 10.1016/j.ces.2020.115831

Scale-up of microreactor: Effects of hydrodynamic diameter on liquid-liquid flow and mass transfer; Wang, XD; Wang, YM; Li, F; Li, L; Ge, XH; Zhang, SL; Qiu, T; 226, 115838 (2020), DOI: 10.1016/j.ces.2020.115838

Scale-up potential of photochemical microfluidic synthesis by selective dimension enlarging with agitation of microbubbles; Sheng, X; Zheng, YZ; Li, WJ; Gao, RM; Du, L; Wang, YJ; 226, 115862 (2020), DOI: 10.1016/j.ces.2020.115862

Analysis of immiscible liquid-liquid mixing in stirred tanks by Electrical Resistance Tomography; Maluta, F; Montante, G; Paglianti, A; 227, 115898 (2020), DOI: 10.1016/j.ces.2020.115898

Flow regimes and mixing characteristics in non-aligned T-jets reactors; Zhang, W; Zhang, JW; Li, WF; Liu, HF; Wang, FC; 228, 115991 (2020), DOI: 10.1016/j.ces.2020.115991

Energy recovery enhancement of heat exchanger network by mixing and azeotrope formation; Zhang, D; Li, YF; Sun, HF; Liu, GL; 228, 115992 (2020), DOI: 10.1016/j.ces.2020.115992

Oil-water flow splitting in eccentric annular T-junction tubes-Experimental and CFD analysis; Yang, LL; Wang, J; Jiang, YH; Zou, L; 228, 116000 (2020), DOI: 10.1016/j.ces.2020.116000

## **Chemical Engineering & Technology Vol. 43 (2020)**

Modeling of Mixing-Precipitation Processes: Agglomeration; Orlewski, PM; Mazzotti, M; 43(6), 1029-1039 (2020), DOI: 10.1002/ceat.201900551

Gas-Liquid Mixing in a Grid-Disc Impeller Stirred Tank; Yang, FL; Sun, HY; Zhang, CX; 43(7), 1297-1307 (2020), DOI: 10.1002/ceat.201900651

Mixing Characteristics of High-Viscosity Fluids under Forced Vertical Vibration; Zhan, XB; He, Y; Sun, ZB; Shen, BJ; Li, XW; 43(7), 1327-1335 (2020), DOI: 10.1002/ceat.201800546

Numeric Simulation-Based Analysis of the Mixing Process in Anaerobic Digesters of Biogas Plants; Conti, F; Saidi, A; Goldbrunner, M; 43(8), 1522-1529 (2020), DOI: 10.1002/ceat.201900650

Cavern Boundary Determination with Pseudoplastic Fluid Based on the Apparent Viscosity Method; Luan, DY; Chen, YM; Wang, H; Wang, ZR; Wang, SS; Li, LB; 43(9), 1726-1732 (2020), DOI: 10.1002/ceat.201800446

Atomization and Mixing Characteristics of Swirl-Flow Atomizers in the Refining Industry; Jin, HZ; Xu, HH; Yu, CY; Liu, XF; Wang, C; Ou, GF; 43(9), 1823-1831 (2020), DOI: 10.1002/ceat.202000063

Numerical and Experimental Study on Mixing in Chaotic Micromixers with Crossing Structures; Fuwad, A; Hossain, S; Ryu, H; Ansari, MA; Khan, MSI; Kim, KY; Jeon, TJ; Kim, SM; 43(9), 1866-1875 (2020), DOI: 10.1002/ceat.201900523

Positron Emission Particle Tracking for Liquid-Solid Mixing in Stirred Tanks; Windows-Yule, CRK; Hart-Villamil, R; Ridout, T; Kokalova, T; Nogueira, JC; 43(10), 1939-1950 (2020), DOI: 10.1002/ceat.202000177

Hydrodynamic Performance of a Ring-Style High-Shear Impeller in Newtonian and Shear-Thinning Fluids; Guadarrama-Perez, R; Marquez-Banos, VE; De La Concha-Gomez, AD; Valencia-Lopez, JJ; Vengoechea-Pimienta, A; de Jesus, GM; Ramirez-Munoz, J; 43(11), 2325-2335 (2020), DOI: 10.1002/ceat.201900569

Optimization of Helical Microreactors by a Genetic Algorithm Technique; Beigzadeh, R; Izadi, M; Rahimi, M; 43(12), 2514-2522 (2020), DOI: 10.1002/ceat.202000301

## **Chinese Journal of Chemical Engineering Vol. 28 (2020)**

Numerical study on turbulent mixed convection in a vertical plane channel using hybrid RANS/LES and LES models; Ding, PX; Wang, SF; Chen, K; 28(1), 1-8 (2020), DOI: 10.1016/j.cjche.2019.04.007

An experimental study of immiscible liquid-liquid dispersions in a pump-mixer of mixer-settler; Tang, Q; Zhang, JYZ; Wu, YX; Wang, YD; Liu, ZH; 28(1), 33-45 (2020), DOI: 10.1016/j.cjche.2019.07.022

CFD modeling of immiscible liquids turbulent dispersion in Kenics static mixers: Focusing on droplet behavior; Haddadi, MM; Hosseini, SH; Rashtchian, D; Ahmadi, G; 28(2), 348-361 (2020), DOI: 10.1016/j.cjche.2019.07.020

Concept of a swirling diffuser in batch blending tanks; Artichowicz, W; Sawicki, JM; 28(2), 378-382 (2020), DOI: 10.1016/j.cjche.2019.09.009

Comparative analysis of different static mixers performance by CFD technique: An innovative mixer; Haddadi, MM; Hosseini, SH; Rashtchian, D; Olazar, M; 28(3), 672-684 (2020), DOI: 10.1016/j.cjche.2019.09.004

Structural optimization of a settler via CFD simulation in a mixer-settler; Ye, SS; Tang, Q; Wang, YD; Fei, WY; 28(4), 995-1015 (2020), DOI: 10.1016/j.cjche.2020.01.010

Gas dispersion and solid suspension in a three-phase stirred tank with triple impellers; Wang, HB; Gao, ZM; Wang, BJ; Bao, YY; Cai, ZQ; 28(5), 1195-1202 (2020), DOI: 10.1016/j.cjche.2019.09.013

Mixed convection in the heated semi-circular lid-driven cavity for non-Newtonian power-law fluids: Effect of presence and shape of the block; Gangawane, KM; Oztop, HF; 28(5), 1244-1259 (2020), DOI: 10.1016/j.cjche.2020.03.005

CFD investigation of the agitation in the desupersaturation during the wet-process phosphoric acid (WPPA) process; Hadane, A; Khamar, L; Benjelloun, S; Nounah, A; Khamar, M; 28(8), 2064-2074 (2020), DOI: 10.1016/j.cjche.2020.03.041

Numerical simulation of micro-mixing in gas-liquid and solid-liquid stirred tanks with the coupled CFD-E-model; Duan, XX; Feng, X; Peng, C; Yang, C; Mao, ZS; 28(9), 2235-2247 (2020), DOI: 10.1016/j.cjche.2020.06.016

The numerical simulation of a new double swirl static mixer for gas reactants mixing; Zhuang, ZK; Yan, JT; Sun, CL; Wang, HQ; Wang,



YJ; Wu, ZB; 28(9), 2438-2446 (2020), DOI: 10.1016/j.cjche.2020.05.008

CFD simulation of impeller shape effect on quality of mixing in two-phase gas-liquid agitated vessel; Heidari, A; 28(11), 2733-2745 (2020), DOI: 10.1016/j.cjche.2020.06.036

## **Industrial & Engineering Chemistry Research Vol. 59 (2020)**

Investigation of Mixing Performance of Two-Dimensional Micromixer Using Tesla Structures with Different Shapes of Obstacles; Hossain, S; Fuwad, A; Kim, KY; Jeon, TJ; Kim, SM; 59(9), 3636-3643 (2020), DOI: 10.1021/acs.iecr.9b06741

Mixing Performance in a Distributed-Feed Plate-Type Reactor with Multinozzle Injection for Fine Chemical Production Scale; Rojahn, P; Russ, O; Gossel, L; Kroschel, M; Herbstritt, F; Heck, J; Schael, F; 59(9), 3655-3668 (2020), DOI: 10.1021/acs.iecr.9b06407

An Overview of Flow Features and Mixing in Micro T and Arrow Mixers; Camarri, S; Mariotti, A; Galletti, C; Brunazzi, E; Mauri, R; Salvetti, MV; 59(9), 3669-3686 (2020), DOI: 10.1021/acs.iecr.9b04922

Mixing of Viscoelastic Fluid Flows in a Coiled Flow Inverter; Verma, V; Topalovic, A; Monechi, G; Alsudani, A; Nigam, KDP; Padding, JT; 59(9), 3854-3864 (2020), DOI: 10.1021/acs.iecr.9b05142

Shining Light on the Coiled-Flow Inverter-Continuous-Flow Photochemistry in a Static Mixer; Tiwari, CP; Delgado-Licona, F; Valencia-Llompant, M; Nunez-Correa, S; Nigam, KDP; Montesinos-Castellanos, A; Lopez-Guajardo, EA; Aguirre-Soto, A; 59(9), 3865-3872 (2020), DOI: 10.1021/acs.iecr.9b05008

Performance Evaluation of Liquid Mixing in a T-Junction Passive Micromixer with a Twisted Tape Insert; Kurnia, JC; Sasmito, AP; 59(9), 3904-3915 (2020), DOI: 10.1021/acs.iecr.9b04535

Enhancement of Heat Transfer in Laminar Flows Using a Toroidal Helical Pipe; Zhang, CG; Nandakumar, K; 59(9), 3922-3933 (2020), DOI: 10.1021/acs.iecr.9b04196

Passive Mixer cum Reactor Using Threaded Inserts: Investigations of Flow, Mixing, and Heat Transfer Characteristics; Khalde, CM; Ramanan, V; Sangwai, JS; Ranade, VV; 59(9), 3943-3961 (2020), DOI: 10.1021/acs.iecr.9b04606

Hydrodynamics and Local Turbulent Mixing of Submerged, Parallel Liquid Jets: Experiments and CFD Simulations; Jiang, SX; Wang, JJ; Feng, LF; Coppens, MO; 59(9), 3985-3995 (2020), DOI: 10.1021/acs.iecr.9b04871

Nonlinear Pressure Drop Oscillations during Gelation in a Kenics Static Mixer; Hozumi, T; Sreedevi, AM; Ohta, S; Ito, T; 59(10), 4533-4541 (2020), DOI: 10.1021/acs.iecr.9b06571

Predicting the Mixing Time of Soft Elastic Reactors: Physical Models and Empirical Correlations; Delaplace, G; Liu, MH; Jeantet, R; Xiao, J; Chen, XD; 59(13), 6258-6268 (2020), DOI: 10.1021/acs.iecr.9b06053

Refractive Index-Matched PIV Experiments and CFD Simulations of Mixing in a Complex Dynamic Geometry; Huang, FL; Chen, P; Wang, JH; Li, ZP; Gao, ZM; Derksen, JJ; 59(16), 7982-7992 (2020), DOI: 10.1021/acs.iecr.0c00169

On the Reduction of Power Consumption in Vortexing Unbaffled Bioslurry Reactors; Scargiali, F; Brucato, A; Micale, G; Tamburini, A; 59(16), 8037-8045 (2020), DOI: 10.1021/acs.iecr.0c00726

Intensifying the Absorption of CO<sub>2</sub> in Water Using a Static Mixer. Part I: Effect of Measurement Technique; Altabash, G; Al-Hindi, M; Azizi, F; 59(25), 11691-11704 (2020), DOI: 10.1021/acs.iecr.0c01269

Breakup of a Viscoelastic Droplet in Co-Rotating Non-Twin Screw Channels; Yu, HW; Xu, BP; Wu, HW; Du, YX; Liu, CT; Turng, LS; 59(33), 15075-15086 (2020), DOI: 10.1021/acs.iecr.0c03268

Discussion on the Construction Principle of New Mixing Indices and Application for Cubic Particle Mixing by SIPHPM; Zhang, ZW; Gui, N; Yang, XT; Tu, JY; Jiang, SY; Li, ZL; 59(43), 19438-19448 (2020), DOI: 10.1021/acs.iecr.0c03185

Continuous Surface Strain Tuning for NiFe-Layered Double Hydroxides Using a Multi-inlet Vortex Mixer; Wang, ST; Zhai, XW; Shi, YL; Chen, L; Lv, Y; Zhang, YL; Ge, GX; Guo, XH; 59(45), 19897-19906 (2020), DOI: 10.1021/acs.iecr.0c03341

Study on the Flow Field Characteristics of a Liquid-Solid-Solid Three-Phase System and the Influence of a Draft Tube in a Stirred Reactor; Wang, LC; Wang, MY; Qi, Y; Tian, YX; Gao, YW; 59(48), 21231-21247 (2020), DOI: 10.1021/acs.iecr.0c04587

Alternative Kinetic Model of the Iodide-Iodate Reaction for Its Use in Micromixing Investigations; Martinez, ANM; Haase, AS; Assirelli, M; van der Schaaf, J; 59(49), 21359-21370 (2020), DOI: 10.1021/acs.iecr.0c04901

Experimental Analysis of the Mass Transfer Coefficient and Interfacial Area in an Aerated Coaxial Mixing System Comprising a Non-Newtonian Solution; Jamshidzadeh, M; Ein-Mozaffari, F; Lohi, A; 59(49), 21530-21547 (2020), DOI: 10.1021/acs.iecr.0c03641

## **Korean Journal of Chemical Engineering Vol. 37 (2020)**

PIV experimental study on flow structure and dynamics of square stirred tank using modal decomposition; Jin, J; Fan, Y; 37(5), 755-765 (2020), DOI: 10.1007/s11814-020-0504-7

Intrinsically microporous oligomers as organic porogens for mixed-matrix membranes; Moon, GH; Park, S; Park, SC; Kim, BS; Jang, J; Kang, YS; 37(6), 1050-1056 (2020), DOI: 10.1007/s11814-020-0528-z

Experimental study on thermo-hydraulic performance of nanofluids in diverse axial ratio elliptical tubes with a built-in turbulator; Qi, C; Chen, TT; Wang, YX; Yang, LY; 37(9), 1466-1481 (2020), DOI: 10.1007/s11814-020-0566-6

Experimental study of gas-liquid two-phase bubbly flow characteristics in a static mixer with three twisted leaves; Meng, HB; Hao, YN; Yu, YF; Li, ZG; Song, SN; Wu, JH; 37(11), 1859-1866 (2020), DOI: 10.1007/s11814-020-0609-z

## **Journal of Chemical Engineering of Japan Vol. 53 (2020)**

Turbulence Characteristics of Magnetic Stirring by Dynamic Mode Decomposition; Jie Jin, Ying Fan; 53(9), 463-468 (2020), DOI: 10.1252/jcej.20we059

Hydrodynamic and Mass Transfer Correlation in a Microbubble Aerated Stirred Tank Reactor; Simon Matthes, Benjamin Thomas, Daniel Ohde, Marko Hoffmann, Paul Bubenheim, Andreas Liese, Shunya Tanaka, Koichi Terasaka, Michael Schlueter; 53(10), 577-584 (2020), DOI: 10.1252/jcej.19we18

Numerical Simulation of the Influence of Bottom Structures on the Flow Field Characteristic in Shaking Bioreactors; Zhiming Lu, Chengtuo Li, Liuyi Huang, Fengping Zhong, Liangqi Fei, Hongliang Zhang, Yuhui Pan; 53(12), 739-746 (2020), DOI: 10.1252/jcej.20we022