

## ミキシング関連文献リスト

(2007年)

検索雑誌名

### AIChE Journal

<http://www3.interscience.wiley.com/cgi-bin/jtoc/107061889?CRETRY=1&SRETRY=0> または  
[http://www.sciencedirect.com/science?\\_ob=JournalURL&\\_cdi=7006&\\_version=1&\\_urlVersion=0&\\_userid=0&md5=d36441509e6f937165578deaa0cabdbb&sb=n](http://www.sciencedirect.com/science?_ob=JournalURL&_cdi=7006&_version=1&_urlVersion=0&_userid=0&md5=d36441509e6f937165578deaa0cabdbb&sb=n)

### Canadian Journal of Chemical Engineering

<http://www.cjche.ca/publishedissues.htm>

### Chemical Engineering Science

[http://www.sciencedirect.com/science?\\_ob=JournalURL&\\_issn=0092509&\\_auth=y&\\_acct=C000000593&\\_version=1&\\_urlVersion=0&\\_userid=2735&md5=a9f275de9078837a91ebf74d5ced4f9](http://www.sciencedirect.com/science?_ob=JournalURL&_issn=0092509&_auth=y&_acct=C000000593&_version=1&_urlVersion=0&_userid=2735&md5=a9f275de9078837a91ebf74d5ced4f9)

### Chemical Engineering & Technology

<http://www3.interscience.wiley.com/journal/10008333/home>

### Industrial & Engineering Chemistry Research

<http://pubs3.acs.org/acs/journals/toc.page?incoden=iecred>  
(冊子体はなくなり、オンラインジャーナルのみになりました。)

### JOURNAL OF CHEMICAL ENGINEERING OF JAPAN

<http://www.seej.org/jcej/>

### Trans. IChemE (Chemical Engineering Research and Design )

<http://www.extenza-eps.com/ICE/loi/cerd>

### 化学工学論文集

<http://www.jstage.jst.go.jp/browse/kakorobunshu/-char/ja>

本年度も従来に従い上記の雑誌より検索しました。論文リストは2007年のものを掲載しております。各雑誌のWebによる検索が可能なように各HPのURLも紹介しておきました。

名古屋工業大学 加藤禎人

2008.3.25

### AIChE Journal

Stokes flow through a single-screw extruder  
53(1), 69-77(2007)  
M. G. Blyth, C. Pozrikidis

Vortex tracking and mixing enhancement in stirred processes  
53(2), 305-315(2007)  
A. Ducci, M. Yianneskis

Bubble trapping and coalescence at the baffles in stirred tank reactors  
53(9), 2232-2239(2007)  
Rahman Sudiyo, Bengt Andersson

### Canadian Journal of Chemical Engineering

LDA Velocity Measurements of High-Viscosity Fluids in Mixing Vessel with Vane Geometry Impeller  
Lidija Slemenik Perse, Tom Bajcar, Brane Sirok and Miha Zumer  
85(6), 817-824(2007)

### Chemical Engineering Science

Modelling local bubble size distributions in agitated vessels  
Marko Laakkonen, Pasi Moilanen, Ville Alopaeus and Juhani Aittamaa  
62(3), 721-740(2007)

Investigation of a rotating disc reactor for acetone stripping and asymmetric transfer hydrogenation: Modelling and experiments  
M. Zanfir, X. Sun and A. Gavrilidis  
62(3), 741-755(2007)

Solids motion in a conical frustum-shaped high shear mixer granulator  
B.H. Ng, C.C. Kwan, Y.L. Ding, M. Ghadiri and X.F. Fan  
62(3), 756-765(2007)

Dimensional analysis for planetary mixer: Mixing time and Reynolds numbers  
G.Delaplace, R.K.Thakur, L.Bouvier, C.Andre and C.Torrez  
62(5), 1442-1447(2007)

Scale-up behaviour in stirred square flocculation tanks  
J. Kilander, S. Blomström and A. Rasmuson  
62(6), 1606-1618(2007)

Mass transfer correlations for multiple-impeller gas–liquid contactors. Analysis of the effect of axial dispersion in gas and liquid phases on “local” kLa values measured by the dynamic pressure method in individual stages of the vessel  
M. Fujasová, V. Linek and T. Moucha  
62(6), 1650-1669(2007)

Comparative study of the mixing of free-flowing particles in a V-blender and a bin-blender  
M. Lemieux, F. Bertrand, J. Chaouki and P. Gosselin  
62(6), 1783-1802(2007)

An experimental and computational study of the vortex shape in a partially baffled agitated vessel  
Jean-Philippe Torré, David F. Fletcher, Thierry Lasuye and Catherine Xuereb  
62(7), 1915-1926(2007)

Viscoplastic fluid mixing in a rotating tank  
Frédéric Savreux, Pascal Jay and Albert Magnin  
62(8), 2290-2301(2007)

Measurement of the velocity field and frictional properties of wet masses in a high shear mixer  
Anders Darelius, Elin Lennartsson, Anders Rasmuson, Ingela Niklasson Björn and Staffan Folestad  
62(9), 2366-2374(2007)

Numerical characterisation of folding flow microchannel mixers  
J.M. MacInnes, A. Vikhansky and R.W.K. Allen  
62(10), 2718-2727(2007)

A general method for quantifying dispersion in multiscale systems using trajectory analysis  
T.W. Martin, J.P.K. Seville and D.J. Parker  
62(13), 3419-3428(2007)

Multi-scale modeling of a mixing-precipitation process in a semibatch stirred tank  
Lars Vicum and Marco Mazzotti  
62(13), 3513-3527(2007)

Hydrodynamics characterization of the Maxblend impeller  
Arash Iranshahi, Christophe Devals, Mourad Heniche, Louis Fradette, Philippe A. Tanguy and Katsuhide Takenaka  
62(14), 3641-3653(2007)

The role of small bubbles in gas–liquid mass transfer in stirred vessels and assessment of a two-fraction model for noncoalescent or moderately viscous liquids  
D. Pinelli  
62(14), 3767-3776(2007)

Hollow self-inducing impellers: Flow visualization and CFD simulation  
B.N. Murthy, N.A. Deshmukh, A.W. Patwardhan and J.B. Joshi  
62(14), 3839-3848(2007)

Experimental and numerical investigation of liquid circulation induced by a bubble plume in a baffled tank  
Anil Balleda, S. Pushpavanam and Abhijit Deshpande  
62(17), 4689-4704(2007)

CFD simulation of accidents in industrial batch stirred tank reactors  
A. Milewska and E.J. Molga  
62(18), 4920-4925(2007)

LDA measurements of near wall powder velocities in a high shear mixer  
Anders Darelius, Anders Rasmuson, Ingela Niklasson Björn and Staffan Folestad  
62(21), 5770-5776(2007)

Single and multiphase CFD approaches for modelling partially baffled stirred vessels: Comparison of experimental data with numerical predictions  
Jean-Philippe Torré, David F. Fletcher, Thierry Lasuye and Catherine Xuereb  
62(22), 6246-6262(2007)

Dispersion of high-viscosity liquid–liquid systems by flow through SMX static mixer elements  
N.V. Rama Rao, M.H.I. Baird, A.N. Hrymak and P.E. Wood  
62(23), 6885-6896(2007)

CFD simulations of gas–liquid–solid stirred reactor: Prediction of critical impeller speed for solid suspension  
B.N. Murthy, R.S. Ghadge and J.B. Joshi  
62(24), 7184-7195(2007)

## Chemical Engineering & Technology

Using CFD and Ultrasonic velocimetry to Study the Mixing of Pseudoplastic Fluids with a Helical Ribbon Impeller  
30(5), 606-614(2007)  
I. Ihejirika, F. Ein-Mozaffari

Mass Transfer Coefficients in Mechanically Agitated Gas-Liquid Contactors  
30(7), 829-834(2007)  
J. Markopoulos, C. Christofí, I. Katsimaris

Application of the Radial Basis Neural Network to Optimization of a Micromixer  
30(7), 962-966(2007)  
M. A. Ansari, K.-Y. Kim

Gas Hold-Up Evaluation Using the Analytical Solution of the Axial Dispersion Model: Comparison with Static Measurement Results  
30(8), 1020-1027(2007)  
H. Veverková-Majírová, D. Pinelli, F. Magelli, N. Siyatkatshana, V. Kudrna, V. Macho

Emulsion Liquid Membrane Pertraction of Zinc and Copper: Analysis of Emulsion Formation using Computational Fluid Dynamics  
30(9), 1212-1220(2007)  
K. Ganesh Prasad, S. Venkatesan, K. M. Meera Sheriff Begum, N. Anantharaman

Simulation of Barium Sulfate Precipitation using CFD and FM-PDF Modeling in a Continuous Stirred Tank  
30(12), 1642-1649(2007)  
Z. Wang, Q. H. Zhang, C. Yang, Z.-S. Mao, X. Q. Shen

Determination of Mixing Times with Helical Ribbon Impeller for Non-Newtonian Viscous Fluids Using an Advanced Imaging Method  
30(12), 1686-1691(2007)  
R. P. Chhabra, L. Bouvier, G. Delaplace, G. Cuvelier, S. Domének, C. André

A Digital Imaging Technique for the Analysis of Local Inhomogeneities from Agitated Vessels  
30(12), 1692-1699(2007)  
O. Visuri, M. Laakkonen, J. Aittamaa

## Industrial & Engineering Chemistry Research

Three-Dimensional Analysis of Flow and Mixing Characteristics of a Novel In-Line Opposing-Jet Mixer  
S. J. Wang and A. S. Mujumdar  
46(2), 632 - 642(2007)

Concentrated Bitumen-in-Water Emulsification in Coaxial Mixers  
Jean-Philippe Gingras, Louis Fradette, Philippe Tanguy, and Eric Jordà  
46(6), 1818 - 1825(2007)

Computational Fluid Dynamics Modeling of a Bench-scale Pump-Mixer: Head, Power and Residence Time Distribution  
K. K. Singh, S. M. Mahajani, K. T. Shenoy, and S. K. Ghosh  
46(7), 2180 - 2190(2007)

Inline Bitumen Emulsification Using Static Mixers  
Jean-Philippe Gingras, Louis Fradette, Philippe Tanguy, and Jacques Bousquet  
46(8), 2618 - 2627(2007)

Mixed Solids Distribution in Stirred Vessels: Experiments and Computational Fluid Dynamics Simulations  
Giuseppina Montante and Franco Magelli  
46(9), 2885 - 2891(2007)

Numerical and Experimental Study of a Dual-Shaft Coaxial Mixer with Viscous Fluids  
Maya Farhat, Christian Rivera, Louis Fradette, Mourad Heniche, and Philippe A. Tanguy  
46(24), 5021 - 5031(2007)

Gas-Liquid Dispersion with Buoyant Particles in a Hot-Sparged Stirred Tank  
Yuyun Bao, Zhengming Gao, Xiaohua Huang, Litian Shi, John M. Smith, and Rex B. Thorpe  
46(20), 6605 - 6611(2007)

Modeling Local Gas-Liquid Mass Transfer in Agitated Viscous Shear-Thinning Dispersions with CFD  
Pasi Moilanen, Marko Laakkonen, Olli Visuri, and Juhani Aittamaa  
46(22), 7289 - 7299(2007)

Modeling of the Complex Mixing Process in Internal Mixers  
Laurent Adragna, Françoise Couenne, Philippe Cassagnau, and Christian Jallut  
46(22), 7328 - 7339(2007)

Large-eddy Simulation of Single-phase Flow Dynamics and Mixing in an Industrial Crystallizer  
J. J. Derkxen, K. Kontomaris, J. B. McLaughlin and H. E. A. Van den Akker  
85(2), 169-179(2007)

# JOURNAL OF CHEMICAL ENGINEERING OF JAPAN

Instantaneous Successive Particle Collisions with an Impeller in a Stirred Tank  
Mio Isaji, Shinichi Oookawa and Kohei Ogawa  
40(1), 12-16 (2007)

Improving Gas Distribution through Agitator and Gas Sparger Modification in an Autoclave Model  
Mohamed Nabil Noui-Mehidi, Yonggang Zhu and Jie Wu  
40(3), 213-216(2007)

Bubble Size Distribution near the Vessel Wall in a Gas Sparged Vessel Agitated by Pitched Blade Paddle Up-Pumping  
Taku Nishio and Koji Takahashi  
40(4), 312-318(2007)

Mass Transfer Characteristics by Surface Aeration of Large Paddle Impeller: Application to a Polymerization Reactor with Liquid Level Change  
Ryuichi Yatomi, Katsuhide Takenaka, Koji Takahashi and Philippe A. Tanguy  
40(5),393-397(2007)

***Special Issue for Recent Progress on Mixing Technology Vol. 40 (2007) , No. 8***

Recent Advance in Chaotic Mixing in a Mixing Equipment  
605-610  
Koji Takahashi

Transport Phenomena around Cylindrical Baffles in an Agitated Vessel Measured by an Electrochemical Method  
611-616  
Yoshihito Kato, Noboru Kamei, Yutaka Tada, Yushi Iwasaki, Yuichiro Nagatsu, Shuichi Iwata, Young-Sei Lee and Song-Tae Koh

The Influence of the Bottom Shape of an Agitated Vessel Stirred by Dual Impellers on the Distribution of Solid Concentration  
617-621  
Shin-ichi Kondo, Mitsunori Motoda, Koji Takahashi and Hiro Horiguchi

Development of a New Swirling Micro Mixer for Continuous Hydrothermal Synthesis of Nano-Size Particles  
622-629  
Yuichiro Wakashima, Akira Suzuki, Shin-ichiro Kawasaki, Keitaro Matsui and Yukiya Hakuta

Experimental and CFD Studies of a Fluid Flow in a Draft-Tube Stirred Tank  
630-635  
Jian Min, Xinqiu Li, Zhengming Gao, Shixin Xiao, John M. Smith and Rex B. Thorpe

Mixing Effects on Particle Size Distribution in Semi-Batch Reactive Crystallization of Maneb  
636-644  
Emadoddin Abbasi and Abdolmohammad Alamdari

Numerical Analysis of the Mixing Process of a Heterogeneously Viscous System with High Concentration Slurry Liquids in a Stirred Vessel  
645-651  
Meguru Kaminoyama, Kazuhiko Nishi, Ryuta Misumi, Tomoyuki Inoue and Hiroshi Takeda

Experimental Investigation and Validation of Mixing and Segregation Behavior of Granular Flow in a Sectorial Container  
652-657  
Ajit Mujumdar, Masayuki Horio, P. S. Robi, Rahul Swarnkar and Moinuddin Malik

Correlation of the Mixing Process and the Power Consumption of Double-Blade Kneaders  
658-665  
Kazuhiko Nishi, Kinya Matsuda, Yasuo Suzuki, Ryuta Misumi, Mitsuo Kamiwano and Meguru Kaminoyama

Universal Expression of Tangential Velocity Distribution near Side Wall of a Fully Turbulent Agitated Vessel without Baffles  
666-672  
Setsuro Hiraoka, Katsumi Shiobara, Yoshihito Kato, Shuichi Iwata, Yutaka Tada, Takao Yamaguchi and Masaaki Yamamura

Relationship between the Dispersed Droplet Diameter and the Mean Power Input for Emulsification in Three Different Types of Motionless Mixers  
673-678  
Tatsumi Yamamoto, Hiroyuki Kawasaki and Hidehiro Kumazawa

Mixing Characteristics in the Horizontal Non-Baffled Stirred Vessel in Low Viscosity Fluid  
679-683  
Honghai Xiao and Koji Takahashi

Large Eddy Simulation of Flow Fields in Vessels Stirred by Dual Rushton Impeller Agitators  
684-691  
Zhipeng Li, Zhengming Gao, John M. Smith and Rex B. Thorpe

Gas Dispersion in Horizontal Non-Baffled Stirred Vessel with Rushton Turbine  
Honghai Xiao and Koji Takahashi  
40(9), 718-723(2007)

Estimation of Boundary Layer Thickness at Side Wall of a Fully Turbulent Agitated Vessel without Baffles  
Katsumi Shiobara, Setsuro Hiraoka, Yoshihito Kato, Shuichi Iwata, Yutaka Tada, Takao Yamaguchi and Masaaki Yamamura  
40(10), 793-804(2007)

Intensification of Mixing  
Jie Wu, L. J. Graham and N. Noui-Mehidi  
40(11), 890-895(2007)

Effect of Periodical Injection for the Intensification of Mixing Process  
Keita Okuda, Yuusuke Sugikawa and Toshihisa Ueda  
40(11), 905-912(2007)

## **Transactions IChemE Part A(Chemical Engineering Research and Design )**

Large-eddy Simulation of Single-phase Flow Dynamics and Mixing in an Industrial Crystallizer  
J. J. Derkxen, K. Kontomaris, J. B. McLaughlin and H. E. A. Van den Akker  
85(2), 169-179(2007)

Liquid/Liquid Viscous Dispersions with a SMX Static Mixer  
Fradette L., Tanguy P., Li H. -Z. and Choplin L.  
85(3), 395-405(2007)

### ***Special Issue 85(5): 12th European Conference on Mixing***

Vortex Identification Methodology for Feed Insertion Guidance in Fluid Mixing Processes  
Ducci A. and Yianneskis M.  
543-550

Mixing in a Model Bioreactor Using Agitators with a High Solidity Ratio and Deep Blades  
Simmons M. J. H., Zhu H., Bujalski W., Hewitt C. J. and Nienow A. W.  
551-559

Reconstruction of 3-D Flow Field Inside Miniature Stirred Vessels Using a 2-D PIV Technique  
Chung K. H. K., Barigou M. and Simmons M. J. H.  
560-567

Experimental and Numerical Analysis of Power Consumption for Mixing of High Viscosity Fluids with a Co-axial Mixer  
Rudolph L., Schäfer M., Atiemo-Obeng V. and Kraume M.  
568-575

Performance of Chaotic Mixing Caused by Reciprocating a Disk in a Cylindrical Vessel  
Hirata Y., Dote T., Yoshioka T., Komoda Y. and Inoue Y.  
576-582

Hydrodynamics performance of a dual shaft mixer with viscous Newtonian liquids  
Cabaret F., Rivera C., Fradette L., Heniche M. and Tanguy P. A.  
583-590

Measuring Flow Velocity in Pulp Suspension Mixing Using Ultrasonic Doppler Velocimetry  
Authors: Ein-Mozaffari F., Bennington C. P. J., Dumont G. A. and Buckingham D.  
591-598

CFD Analysis of Caverns and Pseudo-caverns Developed During Mixing of Non-Newtonian Fluids  
Adams L. W. and Barigou M.  
598-604

Determination of the Segregation Index to Sense the Mixing Quality of Pilotand Production-scale Microstructured Mixers  
Men Y., Hessel V., Löb P., Löwe H., Werner B. and Baier T.  
605-611

Mixing, Flow and Chemical Reaction of Partially Miscible Components in Microscale Channels  
Nauman E. B. and Nigam A.  
612-615

CFD Modelling of Liquid Homogenization in Stirred Tanks with One and Two Impellers Using Large Eddy Simulation  
Jahoda M., Mosťek M., Kukuková A. and Machon' V.  
616-626

Transient Hydrodynamics and Free Surface Capture of an Under-baffled Stirred Tank During Stopping  
Torré J. P., Fletcher D. F., Lasuye T. and Xuereb C.  
626-636

Modelling and Simulation of Gas—Liquid Hydrodynamics in Mechanically Stirred Tanks  
Scargiali F., D'Orazio A., Grisafi F. and Brucato A.  
637-646

Experimental Analysis and Computational Modelling of Gas—Liquid Stirred Vessels  
Montante G., Paglianti A. and Magelli F.  
647-653

Air Entrainment in Baffled Stirred Tanks  
Bhattacharya S., Hebert D. and Kresta S. M.  
654-664

Modelling Local Gas—Liquid Mass Transfer in Agitated Vessels

Laakkonen M., Moilanen P., Alopaeus V. and Aittamaa J.

665-675

Dispersion of Nano-particle Clusters Using Mixed Flow and High Shear Impellers in Stirred Tanks

Xie L., Rielly C. D., Eagles W. and Özcan-Taşkin G.

676-684

The Effect of Bottom Roughness on the Minimum Agitator Speed Required to Just Fully Suspend Particles in a Stirred Vessel

Ghionzoli A., Bujalski W., Grenville R. K., Nienow A. W., Sharpe R. W. and Paglianti A.

685-690

Mixing with Intermittent Jets with Application in Handling Radioactive Waste Sludges

Meyer P. A. and Etchells A. W.

691-696

Multi-Scale Simulations of Stirred Liquid–Liquid Dispersions

DerkSEN J. J. and Van Den Akker H. E. A.

697-702

Experimental Investigations and Modelling of Breakage Phenomena in Stirred Liquid/Liquid Systems.

Maaß S., Gäbler A., Zaccione A., Paschedag A. R. and Kraume M.

703-709

Modelling the Mixing and Dissolution Kinetics of Partially Miscible Liquids

Ibemere S. and Kresta S.

710-720

Influence of Dispersed Phase Viscosity on Drop Coalescence in Turbulent Flow

Podgórska W.

721-729

The Formation of Stable W/O, O/W, W/O/W Cosmetic Emulsions in an Ultrasonic Field

Tal-Figiel B.

730-734

CFD Modelling of Nano-particle Precipitation in Confined Impinging Jet Reactors

Gavi E., Rivautella L., Marchisio D. L., Vanni M., Barresi A. A. and Baldi G.

735-744

Double-feed Semibatch Precipitation: Effects of Mixing

Baldyga J., Makowski Ł. and Orciuch W.

745-752

CFD Modelling of Turbulent Drop Breakage in a Kenics Static Mixer and Comparison with Experimental Data

Jaworski Z., Pianko-Oprych P., Marchisio D. L. and Nienow A. W.

753-759

Intensifying Mass Transfer Between Immiscible Liquids Using Screen-Type Static Mixers

Al Taweel A. M., Li C., Gomaa H. G. and Yuet P.

760-765

Hydrodynamics of a Dual Shaft Mixer with Newtonian and Non-Newtonian Fluids

Khopkar A. R., Fradette L. and Tanguy P. A.

85(6), 863-871(2007)

Characterization of Mixing Patterns in a Coaxial Mixer

Bonnot S., Cabaret F., Fradette L. and Tanguy P. A.

85(8), 1129-1135(2007)

Laminar and Slurry Blending Characteristics of a Dual Shaft Impeller System

Pour S. Barar, Fradette L. and Tanguy P. A.

85(9), 1305-1313(2007)

Mixing Study in Batch Stirred Vessels Using a Fibre-optic UV-VIS Monitoring Technique: A Novel Method

Ng D. J. W. and Assirelli M.

85(10), 1348-1354(2007)

Power and Mixing Time Study Involving a Maxblend® Impeller with Viscous Newtonian and non-Newtonian Fluids

Fradette L., Thomé G., Tanguy P. A. and Takenaka K.

85(11), 1514-1523(2007)

Comparison of Mixing Technologies for the Production of Concentrated Emulsions

Fradette L., Brocart B. and Tanguy P. A.

85(11), 1553-1560(2007)

## 化学工学論文集

非定常搅拌に対する非対称翼の適用

加藤 賢人, 多田 豊, 伴 昌子, 長津 雄一郎, 柳本 和司

33(1), 16-19(2007)

マルチフラクタル解析による2成分流体混合パターンの評価  
井上 義朗, 柴 貴子, 小野 将史, 平田 雄志  
33(2), 85-91(2007)

新型2軸搅拌翼オクタジットの流動特性  
加藤 稔人, 多田 豊, 佐藤 裕子, 原田 拓, 長津 雄一郎, 中谷 哲治  
33(3), 195-200(2007)

マルチフラクタル解析の多種流体系の混合パターン評価への応用  
柴 貴子, 平田 雄志, 井上 義朗  
33(3), 201-207(2007)

邪魔板なし乱流搅拌槽での円周方向速度の半径方向分布の考察  
塩原 克己, 平岡 節郎, 加藤 稔人, 岩田 修一, 山口 隆生, 山村 正明  
33(4), 281-287(2007)

邪魔板なし乱流搅拌槽の槽側壁での熱移動と運動量移動の相似性の検証  
塩原 克己, 平岡 節郎, 加藤 稔人, 岩田 修一, 山口 隆生, 山村 正明  
33(4), 288-293(2007)

パドル翼搅拌槽における旋回スロッシングと共振現象  
出口 雅紀, 新井 和吉, 伴 康隆, 岩原 光男, 長松 昭男  
33(4), 300-305(2007)