

## 動力特性

1999

Piero M. Armenante, Barbara Mazzarotta and GwoMing Chang:  
"Power consumption in stirred tanks provided with multiple pitched blade turbines"  
Ind.Eng.Chem.Res., 38(7), 28092816(1999)

## 流動特性

1999

G.Montante, K.C.Lee, A.Brucato and M.Yianneskis:  
"An experimental study of doubletosingleloop transition in stirred vessels":  
Can.J.Chem.Eng., 77(Aug), 649659(1999)

Ashwin W.Patwardhan and J.B.Joshi:  
"Relation between flow pattern and blending in stirred tanks"  
Ind.Eng.Chem.Res., 38(8), 31313143(1999)

亀井登、平岡節郎、加藤慎人、多田豊、藪内健太  
"パドル翼を備えた攪拌槽の液自由表面形状に及ぼす邪魔板寸法の影響"  
化学工学論文集, 25(1), 1217(1999)

松田充夫、多田豊、平岡節郎、水谷芳郎、上更谷幸治  
"攪拌槽内における長周期変動の周波数解析とフラクタル次元解析"  
化学工学論文集, 25(1), 99105(1999)

## 混合特性

1999

高田一貴、伊藤久善、菊池雅彦、岡本幸道  
"2段ワイドパドル翼付き攪拌槽内の流動・混合特性"  
化学工学論文集, 25(2), 253258(1999)

高田一貴、伊藤久善、菊池雅彦、岡本幸道  
"ダブルヘリカルリボン翼の流動・混合特性に及ぼす翼幅、翼ピッチ及びフレーム寸法の影響"  
化学工学論文集, 25(6), 887892(1999)

## 伝熱特性

1999

Jildert E.Visser, Peter F.Rozendal, Hendrik W. Hoogstraten and Antonie A.C.M. Beenackers:  
"Threedimensional nimerical simulation of flow and heat transfer in the Sulzer SMX static mixer"  
Chem. Eng. Sci., 54, 24912500(1999)

Kaminoyama,M., M.Watanabe, K.Nishi and M.Kamiwano:  
"Numerical Simulation of Local Heat Transfer Coefficients in Stirred Vessel with Impeller for Highly Viscous Fluids"  
J.Chem.Eng.Japan, 32(1), 2330(1999)

## 気液系

1999

Vivek V.Ranade and Vaibhav R. Deshpande:  
"Gasliquid flow in stirred reactors: Trailing vortices and gas accumulation behind impeller blades"  
Chem. Eng. Sci., 54, 23052315(1999)

A.S.Khare and K.Niranjan:  
"An experimental investigation into the effect of impeller design on gas holdup in a highly viscous Newtonian liquid"  
Chem. Eng. Sci., 54, 10931100(1999)

Z.D.Chen and J.J.J.Chen:  
"Comparison of mass transfer performance for various single and impellers"  
Trans.IChemE, 77, Part A, March, 104109(1999)

## 液液系

1999

C.Lin, M.Zhou and C.J.Xu:

"Axisymmetrical twodimensional heterogeneous mass transfe model for the absorption of gas into liquidliquid despensi ons"

Chem. Eng. Sci., 54, 389399(1999)

A.W.Pacek, S.Chamsart, A.W.Nienow and A.Bakker:

"The influence of impeller type on mean drop size and drop size distribution in an agitated vessel"

Chem. Eng. Sci., 54, 42114222(1999)

Shiping Liu and Dongming Li:

"Drop coalescence in turbulent dispersion"

Chem. Eng. Sci., 54, 56675675(1999)

Ville Alopaeus, Jukka Koskinen and Kari I. Keskinen:

"Simulation of the population balances for liquidliquid systems in a nonideal stirred tank.

Part 1 Description and quantitative validation"

Chem. Eng. Sci., 54, 58875899(1999)

J.A.Wesselingh and A.M.Bollen:

"Single particles, bubbles and drops:Their velocities and mass transfer coefficients"

Trans.IChemE, 77, Part A, March, 8996(1999)

Yamamira,H and K.Takahashi :

"Minimum Impeller Speeds forComplete LiquidLiquid Dispersion in a Bafflled Vessel"

J.Chem.Eng.Japan, 32(4), 395401(1999)

栗山雅文、門吐秀樹、今野宏卓

"攪拌槽内における高粘性分散液滴の分裂過程シミュレーション"

化学工学論文集, 25(4), 642647(1999)

## 固液系

1999

W.Bujalski, K.Takenaka, S.Paolini, M.Jahoda, A.Paglianti, K.Takahashi, A.W.Nienow and A.W.Etchells :

"Suspension and liquid homogenization in high solids concentration stirred chemical reactors"

Trans.IChemE, 77, Part A, May, 241247(1999)

Takahashi,K. and S.Sasaki :

"Complete Drawdown and Dispersion od Floating Solids in Agitated Vessel Equipped with Ordinary Impellers"

J.Chem.Eng.Japan, 32(1), 4044(1999)

## 数值解析

1999

JosDerkens and Harry E.A.Van den Akker:

"Large eddy simulations on the flow driven by a Ruston Turbine"

AIChE J., 45(2), 209221(1999)

Giorgio Micale, Alberto Brucato, Franco Grisafi and Michele Ciofalo:

"Prediction of flow fields in a dualimpeller stirred vessel"

AIChE J., 45(3), 445464(1999)

Lin Li and James Wei:

"Threedimensional image analysis of mixing in stirred vessels"

AIChE J., 45(9), 18551865(1999)

Mackley,M.R. and R.M.C.Neves Saraiva:

"The quantitative description of fluid mixing using Lagrangian and concentrationbased nimerical approaches"  
Chem. Eng. Sci., 54, 159170(1999)

A.K.Sahu, P.Kumar, A.W.Patwardhan and J.B.Joshi:  
"CFD modelling and mixing in stirred tanks"  
Chem. Eng. Sci., 54, 22852293(1999)

Marc Jenne and Matthias Reuss:  
"A critical assesment on the use of  $k \epsilon$  turbulence models for simulation of the turbulent liquid flow induced by a Rushton turbine in baffled stirredtank reactors"  
Chem. Eng. Sci., 54, 39213941(1999)

Torrez,C. and C.Andre:  
"Simulation of a Rushton Turbine Mixing Yield Stress Fluids : Application of the MetznerOtto Concept"  
Chem.Eng.Technol., 22(8), 701706(1999)

Tanguy,P.A., F.Thibault, C.Dubois and A.AitKadi:  
"Mixing hydrodynamics in a double planetaly mixer"  
Trans.IChemE, 77, Part A, June, 318324(1999)

松田充夫、多田豊、平岡節郎、上更谷幸治  
"流れ関数によるパドル翼攪拌槽内のフローパターンの変動に関する数値解析"  
化学工学論文集, 25(1), 99105(1999)

井上義朗、平田雄志  
"平面セル状対流におけるカオス的混合の数値解析 I  
－初期混合パターンと微細混合パターンの形成機構－"  
化学工学論文集, 25(2), 294302(1999)

## その他 1999

Omar N.Cavatorta, Ursula Bohm and Ana Maria Chiappori de del Giorgio:  
"Fluiddynamic and masstransfer behavior of static mixers and regular Packings"  
AIChE J., 45(5), 938948(1999)

JeanMarc Rousseaux, Laurent Falk, Herve Muhr and Edouard Plasari:  
"Micromixing Efficiency of a Novel Slidingsurface Mixing Device"  
AIChE J., 45(10), 22032213(1999)

D.W.F.brilman, R.Antink, W.P.M. van Swaaij and G.F.Versteeg:  
"Experimental study of the effect of bubbles, drops and particles on the product distribution for a mixing sensitive, parallelconsecutive reaction system"  
Chem.Eng.Sci., 54, 23252337(1999)

M.Yokota, E.Takezawa, t.Takakusaki, A.Sato, H.Takahashi and N.Kubota:  
"Scaleup effect un the rate of contact nucleation caused by collisions of crystals with an impeller"  
Chem.Eng.Sci., 54, 38313838(1999)

Eva Stahl Wernersson and Christian Tragardh:  
"Scaleup of Rushton turbineagitated tanks"  
Chem.Eng.Sci., 54, 42454256(1999)

Annette Eckstein, Jorg Koch, Alfons Vogelpohl and Felix Kaser:  
"Applicability of the Sulzer OPTFLOW structure for the LiquiLiquid extraction Investigation of single drops"  
Chem.Eng.Technol., 22(11), 909912(1999)

P.Vrabel, R.G.J.M.Van der Lans, Y.Q.Cui and K.CH.A.M.Luyben:  
"Compartment model approach: Mixing in large scale aerated reactors with multiple impellers"  
Trans.IChemE, 77, Part A, June, 291302(1999)

