

# **Publikationsbericht 2006**

**Fakultät für Verfahrens- und Systemtechnik**



**Otto-von-Guericke-Universität Magdeburg**

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### 1. Leitung

Prof. Dr.-Ing. habil. Jürgen Tomas (Dekan)  
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Prof. Dr.-Ing. Eckehard Specht (Studiendekan)

### 2. Institute

Institut für Strömungstechnik und Thermodynamik  
Institut für Verfahrenstechnik  
Institut für Apparate- und Umwelttechnik  
Institut für Chemie

### 3. Veröffentlichungen

#### *Dissertationen*

#### **Agustini, Sri Silvia**

Regenerative action of the wall on the heat transfer for directly and indirectly heated rotary kilns. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2006; [Link unter URL](#); XII, 134 S.: graph. Darst.; 21 cm

#### **Battke, Jürgen**

Interaktion von Sorption und Reaktion bei der Dehalogenierung von halogenorganischen Verbindungen in Wasser. - Dissertation / UFZ-Umweltforschungszentrum Leipzig-Halle GmbH; 2006,11

Zugl.: Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2006; Leipzig [u.a.]: UFZ; 197 S.: graph. Darst.

#### **Brzoza, Mirosław**

Reduzierung von Eigenspannungen und Verzug von Stahlbauteilen durch örtliche Beeinflussung der Abkühlung. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2006; 137 S.: Ill., graph. Darst.; 30 cm

#### **Hussain, Arshad**

Heat and mass transfer in tubular inorganic membranes. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2006; [Link unter URL](#); VII, 166 S.: graph. Darst.; 21 cm

#### **Irawan, Anton**

Isothermal drying of pore networks - influence of pore structure on drying kinetics. - Magdeburg,

Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2006; [Link unter URL](#); X, 117 S.: Ill., graph. Darst.; 21 cm

**Kaspereit, Malte**

Separation of enantiomers by a process combination of chromatography and crystallisation.  
- Forschungsberichte aus dem Max-Planck-Institut für Dynamik Komplexer Technischer Systeme; 14

Zugl.: Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2006; Aachen: Shaker; 140 S.: graph. Darst.; 21 cm, 228 gr.

**Mai, Thanh-Phong**

Experimental investigation of heterogeneously catalyzed hydrolysis of esters. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2006; [Link unter URL](#); VII, 150 S.: graph. Darst.; 21 cm

**Mangold, Michael**

Rechnergestützte Modellierung, Analyse und Führung von Membranreaktoren und Brennstoffzellen. - Magdeburg, Univ., Fakultät für Verfahrens- und Systemtechnik, Habil.-Schr., 2006; Getr. Zählung: Ill., graph. Darst.; 30 cm

**Rosyid, Oo Abdul**

System-analytic safety evaluation of the hydrogen cycle for energetic utilization. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2006; [Link unter URL](#); XI, 237 S.: Ill., graph. Darst.; 30 cm

**Vu, Thai Hong**

Influence of pore size distribution on drying behaviour of porous media by a continuous model.  
- Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2006; [Link unter URL](#); XIII, 136 S.: Ill., graph. Darst.; 30 cm

**Ye, Yinmei**

Experimental study on n-Butane partial oxidation to maleic anhydride in a solid electrolyte membrane reactor. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2006; [Link unter URL](#); XII, 128 Bl.: Ill., graph. Darst.; 30 cm

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Prof. Dr.-Ing. D. Thévenin (Lehrstuhl für Strömungsmechanik und Strömungstechnik)  
Prof. Dr.-Ing. Dr. h.c. (i. R.) H. J. Kecke  
Prof. Dr.-Ing. (i. R.) H.-K. Iben

### 3. Veröffentlichungen

#### *Originalartikel in begutachteten internationalen Zeitschriften*

##### **Boye, Hartwig; Staate, Yvonne; Schmidt, Jürgen**

Experimental investigation and modelling of heat transfer during convective boiling in a minichannel  
In: International journal of heat and mass transfer. - Amsterdam [u.a.]: Elsevier, S. 208-215;  
[Link unter URL](#)  
[Imp.fact.: 1.347]

##### **Cheng, Chuang; Specht, Eckehard**

Reaction rate coefficients in decomposition of lumpy limestone of different origin  
In: Thermochemica acta: an international journal concerned with the broader aspects of thermochemistry and its applications to chemical problems. - Amsterdam: Elsevier, S. 8-15;  
[Link unter URL](#)  
[Imp.fact.: 1.230]

##### **Chmielowski, M. ; Specht, Eckehard**

Modelling of the heat transfer of transport rollers in kilns  
In: Applied thermal engineering: design, processes, equipment, economics. - Oxford [u.a.]: Pergamon, S. 736-744; [Link unter URL](#)  
[Imp.fact.: 0.777]

##### **Cortina Diaz, Marta; Boye, Hartwig; Hpke, I. ; Schmidt, Jürgen; Staate, Y. ; Zhekov, Z.**

Investigation of flow boiling in narrow channels by thermographic measurement of local wall temperatures

In: Microfluidics and nanofluidics. - Heidelberg: Springer, S. 1-11; [Abstract unter URL](#), 2006

**Fernandez Fernandez, A. ; Brichard, B. ; Berghmans, F. ; El-Rabii, H. ; Fokine, M. ; Popov, M.**

Chemical composition fiber gratings in a high mixed gamma neutron radiation field

In: Institute of Electrical and Electronics Engineers: IEEE transactions on nuclear science: NS; a publication of the IEEE Nuclear and Plasma Sciences Society. - New York, NY: IEEE, S. 1607-1613; [Link unter URL](#), 2006

[Imp.fact.: 1.259]

**Hilbert, Renan; Janiga, Gabor; Baron, Romain; Thévenin, Dominique**

Multi-objective shape optimization of a heat exchanger using parallel genetic algorithms

In: International journal of heat and mass transfer. - Amsterdam [u.a.]: Elsevier, S. 2567-2577;

[Link unter URL](#)

[Imp.fact.: 1.347]

**Holzapfel, Kai-Uwe; Specht, Eckehard**

Heat transfer between a rotating cylinder and a transported plate

In: Experimental heat transfer: international journal. - Washington, DC: Taylor & Francis, S. 39-51; [Link unter URL](#), 2006

[Imp.fact.: 0.343]

**Krause, Nico; Pap, Elemer; Thevenin, Dominique**

One circular arc blade impeller of a radial pump measured with TR-PIV

In: World Scientific and Engineering Academy and Society: WSEAS transactions on fluid mechanics. - Athens: WSEAS, S. 392-398; [Link unter URL](#)

**Liu, Xiao Yan; Specht, Eckehard**

Mean residence time and hold-up of solids in rotary kilns

In: Chemical engineering science: journal internat. de génie chimique. - Amsterdam: Elsevier, S. 5176-5181; [Link unter URL](#)

[Imp.fact.: 1.735]

**Liu, Xiao Yan; Specht, Eckehard; Guerra Gonzalez, O. ; Walzel, P.**

Analytical solution for the rolling-mode granular motion in rotary kilns

In: Chemical engineering and processing. - Lausanne: Elsevier, S. 515-521; [Link unter URL](#)

[Imp.fact.: 1.159]

### ***Originalartikel in begutachteten nationalen Zeitschriften***

**Brzoza, Mirosław; Specht, Eckehard; Ohland, J. ; Belkessam, O. ; Lübben, Th. ; Fritsching, U.**

Minimizing stress and distortion for shafts and discs by controlled quenching in a field of nozzles

In: Materialwissenschaft und Werkstofftechnik. - Weinheim: Wiley-VCH, S. 97-102, 2006

[Imp.fact.: 0.264]

**Leonhardt, Henry; Meinecke, Dirk; Gerlach, Klaus Louis**

Quantitative Bestimmung der Thermosensibilität nach Umstellungsosteotomien des Unterkiefers  
In: Mund-, Kiefer- und Gesichtschirurgie: MKG. - Berlin: Springer, S. 162-167; [Link unter URL](#), 2006

**Woche, Hermann; Nirmolo, Aryoso; Specht, Eckehard**

Auslegungskriterien zur Temperaturvergleichmäßigung in Brennkammern mit radikaler Lufteindüsung

In: Gaswärme international: Gasanwendung in Industrie und Gewerbe; Zeitschrift für das gesamte Gebiet der Gasverwendung und der gasbeheizten Industrieöfen; Organ des Gaswärme-Instituts - GWI -, Essen, des Bereichs Feuerungstechnik des Engler-Bunte-Instituts der Universität Karlsruhe (TH), des Instituts für Industrieofenbau und Wärmetechnik im Hüttenwesen der Rhein.-Westf. Techn. Hochschule Aachen, des Instituts für Energieverfahrenstechnik des Lehrstuhls Hochtemperaturanlagen, des Institutes für Wärmetechnik und Thermodynamik der TU Bergakademie, Freiberg, und des Fachverbandes Thermoprozess- und Abfalltechnik im Verband Deutscher Maschinen- und Anlagenbau (VDMA) e.V., Frankfurt. - Essen: Vulkan-Verl., S. 338-341, 2006

**Originalartikel in begutachteten zeitschriftenartigen Reihen**

**Bordás, Robert; Kuhn, Robert; Michaelis, Bernd; Thévenin, Dominique; Wunderlich, Bernd**

Towards the investigation of vortex structures in gas flows with 3d-highspeed particle tracking using coloured tracers

In: International Symposium on Flow Visualization <12, 2006, Göttingen>: CD-ROM proceedings: September 10 - 14, 2006, Göttingen, Germany. - Edinburgh, UK: Optimage Ltd., insges. 9 S.

**Bordás, Robert; Öncül, Alper; Zähringer, Katharina; Thévenin, Dominique**

Optical measurements in two-phase flows involving particles

In: International Symposium on Flow Visualization <12, 2006, Göttingen>: CD-ROM proceedings: September 10 - 14, 2006, Göttingen, Germany. - Edinburgh, UK: Optimage Ltd., insges. 10 S.

**Cortina Díaz, Marta; Schmidt, Jürgen**

Experimental investigation of flow boiling heat transfer in a microchannel by using infrared thermography

In: World Congress on Particle Technology <5, 2006, Orlando, Fla.>: Fifth World Congress on Particle Technology: WCPT 5. - New York, NY: American Institute of Chemical Engineers, insges. 9 S.; P / AIChE, American Institute of Chemical Engineers; 227

**Czibere, Tibor; Kalmár, László; Janiga, Gábor**

Fully-developed isothermal and incompressible turbulent flows in passages

In: Conference on Modelling Fluid Flow, (CMFF'06), September 6 - 9, 2006: conference proceedings. - Budapest: Department of Fluid Mechanics of Budapest Univ. of Technology and Economics, S. 456-463

**Imberdis, Oliver; Bensler, H. ; Hartmann, M. ; Hentschel, W. ; Ohmstede, G. ; Thévenin,**

**Dominique**

Visualization and characterization of intake-port model induced turbulent structures

In: International Symposium on Flow Visualization <12, 2006, Göttingen>: CD-ROM proceedings: September 10 - 14, 2006, Göttingen, Germany. - Edinburgh, UK: Optimage Ltd., insges. 11 S.

**Janiga, Gábor; Thévenin, Dominique**

Numerical optimisation of a laminar burner to reduce CO emissions

In: Conference on Modelling Fluid Flow, (CMFF'06), September 6 - 9, 2006: conference proceedings. - Budapest: Department of Fluid Mechanics of Budapest Univ. of Technology and Economics, S. 109-115

**Krause, Nico; Pap, Elemer; Thévenin, Dominique**

Influence of blade geometry on the rotating stall in a radial pump impeller

In: Conference on Modelling Fluid Flow, (CMFF'06), September 6 - 9, 2006: conference proceedings. - Budapest: Department of Fluid Mechanics of Budapest Univ. of Technology and Economics, S. 639-646

**Leschka, Stefan; Thévenin, Dominique; Zähringer, Katharina**

Flow measurements around a static mixer using laser-doppler anemometry, particle image velocimetry and laser-induced fluorescence

In: International Symposium on Flow Visualization <12, 2006, Göttingen>: CD-ROM proceedings: September 10 - 14, 2006, Göttingen, Germany. - Edinburgh, UK: Optimage Ltd., insges. 10 S.

**Leschka, Stefan; Thévenin, Dominique; Zähringer, Katharina**

Fluid velocity measurements around a static mixer using laser-doppler anemometry and particle image velocimetry

In: Conference on Modelling Fluid Flow, (CMFF'06), September 6 - 9, 2006: conference proceedings. - Budapest: Department of Fluid Mechanics of Budapest Univ. of Technology and Economics, S. 639-646

**Shalaby, Hemdan; Janga, Gabor; Laverdant, A. ; Thévenin, Dominique**

Visualization of turbulent flames using direct numerical simulation

In: International Symposium on Flow Visualization <12, 2006, Göttingen>: CD-ROM proceedings: September 10 - 14, 2006, Göttingen, Germany. - Edinburgh, UK: Optimage Ltd., insges. 9 S.

**Thévenin, Dominique**

Modelling internal reacting flows

In: Conference on Modelling Fluid Flow, (CMFF'06), September 6 - 9, 2006: conference proceedings. - Budapest: Department of Fluid Mechanics of Budapest Univ. of Technology and Economics, S. 12-25

**Ulzama, Shabi; Specht, Eckehard**

Kinetic analysis of Boudouard reaction and its dependence on porous structure

In: American Institute of Chemical Engineers: All topical conference sessions and non-topical conference sessions. - New York, NY: American Institute of Chemical Engineers, insges. 10 S.;

P / AIChE, American Institute of Chemical Engineers; 227, 2006

**Wunderlich, Bernd; Hagemeier, Thomas; Thévenin, Dominique; Bordás, Róbert**

LDV signals provide more information than used before

In: Conference on Modelling Fluid Flow, (CMFF'06), September 6 - 9, 2006: conference proceedings. - Budapest: Department of Fluid Mechanics of Budapest Univ. of Technology and Economics, S. 730-735

### ***Buchbeiträge***

**Bordás, Robert; Hagemeier, T. ; Thévenin, Dominique; Wunderlich, Bernd**

LDV-Signale beinhalten mehr Informationen als nur die Geschwindigkeit

In: Lasermethoden in der Strömungsmesstechnik: 14. Fachtagung, 5. bis 7. September 2006 Physikalisch-Technische Bundesanstalt Braunschweig. - Braunschweig: Physikal.-Techn. Bundesanst., insges. 7 S.

**Brzoza, Mirosław; Kaymak, Yalcin; Specht, Eckehard**

Study of controlled quenching for minimizing stress and equalizing hardness as examples for shafts and discs

In: 12th International Metallurgy-Materials Congress and Fair: 28th September - 02nd October, Istanbul, 2005. - Ankara, insges. 8 S., 2006

**Cortina Díaz, Marta; Schmidt, Jürgen**

Flow boiling heat transfer of n-hexane and n-octane in a minichannel

In: Conference proceedings: Sydney Convention and Exhibition Centre Sydney, Australia, 13 - 18 August 2006. - Sydney, insges. 12 S.

**Fodor, Béla; Czibere, Tibor; Kalmár, László; Pap, Elemer**

Näherungsberechnung der betrieblichen Schaufelbelastung von Kaplan-Turbinen

In: Áramlás és hőtechnikai. - Miskolc: Univ., S. 13-20, 2006

**Georgieva-Angelova, K. ; Schmidt, Jürgen**

Simulation of mass transfer in a catalytic membrane reactor

In: Conference proceedings: Sydney Convention and Exhibition Centre Sydney, Australia, 13 - 18 August 2006. - Sydney, insges. 12 S.

**Imberdis, Olivier; Bensler, Henry-Paul; Hartmann, Michael; Hentschel, Werner; Schrottke, Uwe; Thévenin, Dominique**

Analysis of turbulent flow induced by a simplified steady-state engine port model - LDA measurements and CFD simulation

In: Lasermethoden in der Strömungsmesstechnik: 14. Fachtagung, 5. bis 7. September 2006 Physikalisch-Technische Bundesanstalt Braunschweig. - Braunschweig: Physikal.-Techn. Bundesanst., insges. 9 S.

**Janiga, Gábor; Gordner, Achim; Shalaby, Hemdan; Thévenin, Dominique**

Simulation of laminar burners using detailed chemistry on parallel computers

In: European Conference on Computational Fluid Dynamics: Egmond aan Zee, the Netherlands, 5 - 8 September 2006; proceedings. - TU Delft, insges. 14 S.



**Janiga, Gabor; Thévenin, Dominique**

Direct numerical simulation of turbulent reacting flows involving dilute particles

In: Direct and large-eddy simulation VI: proceedings of the Sixth International ERCOFTAC Workshop on Direct and Large-Eddy Simulation, held at the University of Poitiers, September 12 - 14, 2005. - Dordrecht: Springer, S. 101-108; Ercoftac series; 10, 2006

**Kalmár, László; Czibere, Tibor; Janiga, Gábor**

Computation of the fully-developed turbulent channel flows

In: Áramlás és hőtechnika. - Miskolc: Univ., S. 79-84, 2006

**Kaymak, Yalcin; Brzoza, Mirosław; Specht, Eckehard**

Simulation of the distortion and microstructure distribution in steel profiles during cooling by finite element method

In: 12th International Metallurgy-Materials Congress and Fair: 28th September - 02nd October, Istanbul, 2005. - Ankara, insges. 8 S., 2006

**Krol, Jacek; Specht, Eckehard**

Atomized spray quenching as alternative technique for reduction of distortion and stresses

In: 12th International Metallurgy-Materials Congress and Fair: 28th September - 02nd October, Istanbul, 2005. - Ankara, insges. 7 S., 2006

**Pong Bui, Thanh; Schröder, Wolfgang; Meinke, Matthias; Shalaby, Hemdan; Thévenin, Dominique**

Source term evaluation of the spray system using DNS data

In: European Conference on Computational Fluid Dynamics: Egmond aan Zee, the Netherlands, 5 - 8 September 2006; proceedings. - TU Delft, insges. 14 S.

**Shalaby, Hemdan; Thévenin, Dominique; Pong Bui, Thanh; Schröder, Wolfgang; Meinke, Matthias**

DNS/CAA hybrid approach to simulate the noise radiated from a turbulent premixed flame

In: Proceedings: July 2 - 6, Vienna, Austria. - Vienna: TU Vienna, insges. 8 S., 2006

**Witte, Kerstin; Wunderlich, Bernd; Betzler, Nils; Thévenin, Dominique; Bordás, Róbert; Edelmann- Nusser, Jürgen**

Examination of a swimming dummy's flow field using laser doppler velocimetry

In: Developments for disciplines. - New York, NY: Springer, S. 75-80, 2006

**Wunderlich, Bernd; Janiga, Gábor; Szabó, Szilárd**

Modeling of units of an electrically heated furnace

In: Áramlás és hőtechnika. - Miskolc: Univ., S. 1-6, 2006

**Artikel in Kongressbänden**

**Bourig, Ali; Lago, V. ; Martin, J.-P. ; Pliavaka, K. ; Pliavaka, F. ; Gorbatov, S. ; Chernukho, A. ; Naumos, V.**

Generation of singlet oxygen in HV pulsed + DC crossed discharge at atmospheric pressure for oxygen-enhanced combustion

In: Proceedings of the 5th ISNTPT: la Vielle Perrotine, Saint Pierre d'Oleron, Oleron Island,

France, June 19-23, 2006. - Université de Poitiers, insges. 6 S.

**Bourig, Ali; Martin, J.-P. ; Lago, V. ; Thévenin, Dominique; Zähringer, Katharina**

Hydrogen combustion in presence of excited oxygen produced by non thermal plasma  
- experimental and numerical study

In: The second International Workshop Nonequilibrium Processes in Combustion and Plasma-Based Technologies, NPCPBT 2006: Minsk, Belarus, 26 - 31 August 2006: proceedings.  
- Minsk, S. 51-55

**Cossali, G. E. ; Marengo, M. ; Santini, M. ; Fest, Stephanie**

Effect of wall effusivity on thermally induced secondary atomisation of single drop impacting onto a tiled surface

In: ICLASS 2006, 10th International Conference on Liquid Atomization and Spray Systems: August 27 - September 1, 2006, Kyoto, Japan; proceedings, insges. 7 S.

**Kaymak, Yacin; Specht, Eckehard; Bertram, Albrecht**

Reducing the residual stresses and distortion by controlled quenching

In: 15th IFHTSE and SMT 20. - ASMET, insges. 5 S., 2006

**Krause, Nico; Pap, Elemer; Thévenin, Dominique**

Investigation of off-design conditions in a radial pump by using time-resolved-piv

In: 13th Lisbon: international symposium; 26 - 29 June 2006, [Calouste Gulbenkian Foundation, Lisboa, Portugal; 13th International Symposium on Applications of Laser Techniques to Fluid Mechanics; papers]. - Lisboa, insges. 11 S.

**Nacheva, Mariya; Schmidt, Jürgen**

Micro modeling of the spray cooling of hot metal surfaces above the leidenfrost temperature

In: ICLASS 2006, 10th International Conference on Liquid Atomization and Spray Systems: August 27 - September 1, 2006, Kyoto, Japan; proceedings, insges. 7 S.

**Nacheva, Mariya; Schmidt, Jürgen**

Simulations of heat transfer to single droplets impacting on heated solid surfaces at different weber numbers

In: Drop/wall interaction: industrial applications, experiments and modelling: DITICE workshop, Bergamo, 19 May 2006. - Bergamo, insges. 6 S.

**Nacheva, Mariya; Schmidt, Jürgen**

Theoretical investigation of spray cooling heat transfer using a micro model for single droplets

In: 6th International Conference on Boiling Heat Transfer: May 7-12, 2006, Spoleto, Italy.  
- Spoleto, insges. 7 S.

**Pliavaka, K. F. ; Gorbatov, S. V. ; Shushkou, S. V. ; Pliavaka, F. V. ; Chernukho, A. P. ; Zhdanok, S. A. ; Naumov, V. V. ; Starik, A. M. ; Bourig, Ali; Martin, J.-P.**

Singlet oxygen production in electrical non-self-sustained HV pulsed + DC cross discharge at atmospheric pressure with application to plasma assisted combustion technologies

In: The second International Workshop Nonequilibrium Processes in Combustion and Plasma-Based Technologies, NPCPBT 2006: Minsk, Belarus, 26 - 31 August 2006: proceedings.  
- Minsk, S. 186-191

**Shalaby, Hemban; Thévenin, Dominique**

Interest of direct numerical simulations for investigations of turbulent flame structure and noise emissions

In: Eighth International Congress on Fluid Dynamics and Propulsion, ICFDP 8: December 14-17, 2006, Sharm El-Shierkh, Sinal, Egypt; proceedings. - ASME, insges. 7 S.

***Dissertationen***

**Bes, Agnieszka**

Dynamic process simulation of limestone calcination in normal shaft kilns. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2006; [Link unter URL](#); 118 S.: graph. Darst.; 21 cm

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Prof. Dr.-Ing. habil. Kai Sundmacher(geschäftsführender Leiter)  
Prof. Dr.-Ing. habil. Evangelos Tsotsas  
Prof. Dr.-Ing. habil. Jürgen Tomas  
Dipl.-Phys. Diethard Kürschner  
Dipl.-Ing. Aimo Haack

### 2. Hochschullehrer

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Prof. Dr.-Ing. habil. Andreas Seidel-Morgenstern  
Prof. Dr.-Ing. habil. Kai Sundmacher  
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Prof. Dr.-Ing. habil. Evangelos Tsotsas  
Prof. em. Dr.-Ing. Siegfried Kattanek  
Jun.-Prof. Dr. rer.nat. habil Ulrich Tallarek

### 3. Veröffentlichungen

#### *Originalartikel in begutachteten internationalen Zeitschriften*

**Angelov, I. ; Raisch, Jörg; Elsner, M. P. ; Seidel-Morgenstern, Andreas**

Optimization of initial conditions for preferential crystallization

In: Industrial & engineering chemistry research. - Columbus, Ohio: American Chemical Society, S. 759-766; [Abstract unter URL](#)

[Imp.fact.: 1.424]

**Antonyuk, Sergiy; Khanal, Manoj; Tomas, Jürgen; Heinrich, Stefan; Mörl, Lothar**

Impact breakage of spherical granules - experimental study and DEM simulation

In: Chemical engineering and processing. - Lausanne: Elsevier, S. 838-856; [Link unter URL](#), 2006

[Imp.fact.: 1.159]

**Groenewold, H. ; Tsotsas, Evangelos**

Drying in fluidized beds with immersed heating elements

In: Chemical engineering science: journal internat. de génie chimique. - Amsterdam: Elsevier, S. 481-502; [Link unter URL](#)

[Imp.fact.: 1.735]

**Grossmann, Lilla; Tomas, Jürgen; Herold, Daniela; Sommer, Karl**

Experimentelle Untersuchung der Verdichtung von kohäsiven Schüttgütern mit einer Walzenpresse

In: Aufbereitungstechnik: AT. - Gütersloh: Bauverl. BV, S. 22-29, 2006

**Grötsch, M. ; Gundermann, M. ; Mangold, Michael; Kienle, Achim; Sundmacher, Kai**

Development and experimental investigation of an extended Kalman filter for an industrial molten carbonate fuel cell system

In: Journal of process control: a journal affiliated with IFAC, the International Federation of Automatic Control. - Amsterdam [u.a.]: Elsevier Science, S. 985-992; [Abstract unter URL](#)

[Imp.fact.: 1.433]

**Gueorguieva, Ludmila; Vallejo, Luis Felipe; Rinas, Ursula; Seidel-Morgenstern, Andreas**

Discontinuous and continuous separation of the monomeric and dimeric forms of human bone morphogenetic protein-2 from renaturation batches

In: Journal of chromatography / A. A. - New York, NY [u.a.]: Science Direct, S. 142-150;

[Abstract unter URL](#)

[Imp.fact.: 3.096]

**Gundermann, Matthias; Heidebrecht, P. ; Sundmacher, Kai**

Validation of a mathematical model using an industrial MCFC plant

In: Journal of fuel cell science and technology. - New York, NY: ASME, S. 303-307;

[Abstract unter URL](#), 2006

**Hamel, Christof; Seidel-Morgenstern, Andreas; Schiestel, Thomas; Werth, Steffen; Wang, Haihui; Tablet, Christina; Caro, Jürgen**

Experimental and modeling study of the O<sub>2</sub>-Enrichment by Perovskite fibers

In: American Institute of Chemical Engineers: AIChE journal. - Hoboken, NJ: Wiley, S. 3118-3125; [Abstract unter URL](#), 2006

[Imp.fact.: 2.036]

**Heßeler, Julia; Schmidt, Julia K. ; Reichl, Udo; Flockerzi, Dietrich**

Coexistence in the chemostat as a result of metabolic by-products

In: Journal of mathematical biology. - Berlin: Springer, S. 556-584; [Abstract unter URL](#), 2006

[Imp.fact.: 1.613]

**Hlushkou, Dzmitry; Apanasovich, Vladimir; Seidel-Morgenstern, Andreas; Tallarek, Ulrich**

Numerical simulation of electrokinetic microfluidics in colloidal systems

In: Chemical engineering communications. - London [u.a.]: Taylor & Francis, S. 826-839;

[Abstract unter URL](#), 2006

[Imp.fact.: 0.377]

**Hlushkoua, Dzmitry; Tallarek, Ulrich**

Transition from creeping via viscous-inertial to turbulent flow in fixed beds

In: Journal of chromatography / A. A. - New York, NY [u.a.]: Science Direct, S. 70-85;

**Abstract unter URL**

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