



OTTO VON GUERICKE  
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VST

FAKULTÄT FÜR VERFAHRENS-  
UND SYSTEMTECHNIK

# Publikationsbericht 2017

# FAKULTÄT FÜR VERFAHRENS- UND SYSTEMTECHNIK

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## 1. Leitung

Prof. Dr.-Ing. habil. Dominique Thévenin (Dekan)  
Prof. Dr.-Ing. habil. Evangelos Tsotsas (Prodekan)  
Prof. Dr.-Ing. Eckehard Specht (Studiendekan)

## 2. Veröffentlichungen

### *Dissertationen*

#### **Abdelsamie, Abouelmagd; Thévenin, Dominique [GutachterIn]**

Direct numerical simulations of turbulent flow and spray combustion. - Magdeburg, 2017, xxv, 165 Seiten, Illustrationen  
[Literaturverzeichnis: Seite 151-165]

#### **Abdelwahab, Abdulkadir Ahmed Alnour A.; Specht, Eckehard [GutachterIn]; Herz, Fabian [GutachterIn]**

Modeling of solid reaction behavior in direct heated rotary kilns. - Magdeburg, 2017, X, 133 Seiten, Illustrationen  
[Literaturverzeichnis: Seite 111-116]

#### **Al-Khalaf, Ali Mohammed Ridha; Specht, Eckehard [GutachterIn]; Thévenin, Dominique [GutachterIn]**

Experimental and numerical analysis of flow mixing in packed beds. - Magdeburg, 2017, viii, 131 Seiten, Illustrationen, 30 cm  
[Literaturverzeichnis: Seite 127-129]

#### **Bensmann, Boris; Sundmacher, Kai [AkademischeR BetreuerIn]**

Systemanalyse der Druckwasser-Elektrolyse im Kontext von Power-to-Gas-Anwendungen. - Magdeburg, 2017, xv, 151 Seiten, Illustrationen, Diagramme, 21 cm  
[Literaturverzeichnis: Seite 139-151]

#### **Do, Nga Thi Quynh; Sundmacher, Kai [GutachterIn]**

Model-based analysis of an electro-enzymatic system for glucose oxidation. - Magdeburg, 2017, vi, 136 Seiten, Illustrationen  
[Literaturverzeichnis: Seite 117-128]

#### **Eger, Toni; Specht, Eckehard [AkademischeR BetreuerIn]; Thévenin, Dominique [AkademischeR BetreuerIn]**

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#### **Eshghinejadfard, Amir; Thévenin, Dominique [AkademischeR BetreuerIn]**

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#### **Fachet, Melanie; Sundmacher, Kai [AkademischeR BetreuerIn]**

Systematic analysis of carotenogenesis in microalgae for model-based process design. - Magdeburg, 2017, xviii, 165

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**Hentschel, Benjamin; Sundmacher, Kai [AkademischeR BetreuerIn]**

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**Heyer, Robert Steven; Reichl, Udo [GutachterIn]**

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**Hoffmann, Torsten; Tsotsas, Evangelos [GutachterIn]; Peglow, Mirko [GutachterIn]; Bück, Andreas [GutachterIn]**

Experimentelle Untersuchungen des Einflusses von verschiedenen Prozessparametern auf das Partikelwachstum bei der Wirbelschicht-Sprühgranulation. - Magdeburg, 2017, XVIII, 137 Blätter, Illustrationen, Diagramme  
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**Horváth, Zoltán; Seidel-Morgenstern, Andreas [AkademischeR BetreuerIn]**

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[Literaturverzeichnis: Seite 141-149]

**McBride, Kevin; Sundmacher, Kai [AkademischeR BetreuerIn]**

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[Literaturverzeichnis: Seite [157]-169]

**Melcher, Thomas; Specht, Eckehard [AkademischeR BetreuerIn]; Krause, Ulrich [AkademischeR BetreuerIn]**

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**Rein, Carsten; Specht, Eckehard [AkademischeR BetreuerIn]; Herz, Fabian [AkademischeR BetreuerIn]**

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**Saad, Rania Abdalla Babiker; Köser, Heinz [AkademischeR BetreuerIn]**

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**Santos da Silva, Francisco Vitor; Kienle, Achim [AkademischeR BetreuerIn]; Seidel-Morgenstern, Andreas [AkademischeR BetreuerIn]**

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**Todorova, Zinaida Ivanova; Scheffler, Franziska [AkademischeR BetreuerIn]; Krüger, Manja [AkademischeR BetreuerIn]**  
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**Tran, Thi Thu Hang; Tsotsas, Evangelos [GutachterIn]; Peglow, Mirko [GutachterIn]**

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[Literaturverzeichnis: Seite 132-146]

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## 1. Leitung

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## 2. Veröffentlichungen

### ***Begutachtete Zeitschriftenaufsätze***

#### **Abdelsamie, Abouelmagd; Janiga, Gábor; Thévenin, Dominique**

Spectral entropy as a flow state indicator

In: International journal of heat and fluid flow - Amsterdam [u.a.]: Elsevier Science, Bd. 68.2017, S. 102-103  
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#### **Attalla, M.; Maghrabie, Hussein M.; Qayyum, Abdul; Al-Hasnawi, Adnan G.; Specht, Eckehard**

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**Hlawitschka, M. W.; Kováts, Peter; Zähringer, Katharina; Bart, H.-J.**

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In: IEEE transactions on visualization and computer graphics: TVCG - New York, NY: IEEE, Bd. 23.2017, 1, S. 761-770

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In: Chemical engineering science - Amsterdam [u.a.]: Elsevier Science, Bd. 160.2017, S. 346-353

[Imp.fact.: 1,073]

**Ojo, Anthony O.; Fond, Benoit; Abram, Christopher; Wachem, Berend G. M.; Heyes, Andrew L.; Beyrau, Frank**

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In: International journal of hydrogen energy: official journal of the International Association for Hydrogen Energy - New York, NY [u.a.]: Elsevier, Bd. 42.2017, 10, S. 7029-7044  
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**Rzehak, Roland; Krauß, Manuel; Kováts, Péter; Zähringer, Katharina**

Fluid dynamics in a bubble column: New experiments and simulations

In: International journal of multiphase flow - Oxford: Pergamon Press, Bd. 89.2017, S. 299-312  
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**Saalfeld, Sylvia; Hoffmann, Thomas; Boese, Axel; Voß, Samuel; Kalinski, Thomas; Skalej, Martin; Preim, Bernhard**

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[Imp.fact.: 0,187]

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**Schulz, Florian; Beyrau, Frank**

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In: The European physical journal / Web of Conferences - Les Ulis: EDP Sciences, Vol. 140, Section Granular flow, Art. 03076, insgesamt 4 S., 2017

[Konferenz: 8th International Conference on Micromechanics on Granular Media, Powders and Grains 2017, Montpellier,

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Flow mixing in the gap between the cars in tunnel kilns

In: Energy procedia - Amsterdam [u.a.]: Elsevier, Bd. 120.2017, S. 635-642

**Yin, Zhiyao; Fond, Benoit; Eckel, Georg; Abram, Christopher; Meier, Wolfgang; Boxx, Isaac; Beyrau, Frank**

Investigation of BAM - Eu 2+ particles as a tracer for temperature imaging in flames

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**Yu, Hai; Engel, Sebastian; Janiga, Gábor; Thévenin, Dominique**

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In: Artificial organs: official journal of the International Federation for Artificial Organs and the International Faculty for Artificial Organs - Oxford [u.a.]: Wiley-Blackwell, Bd. 41.2017, 7, S. 603-621

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**Zähringer, Katharina; Wagner, Lisa-Maria; Thévenin, Dominique; Siegmund, Patrick; Sundmacher, Kai**

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### ***Begutachtete Buchbeiträge***

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## 1. Leitung

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Prof. Dr.-Ing. habil. Dr. h. c. Lothar Mörl  
Prof. Dr.-Ing. habil. Heinz Köser

## 2. Veröffentlichungen

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## 1. Leitung

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Prof. Dr. rer. nat. habil. Frank T. Edelmann

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