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FAKULTÄT FÜR VERFAHRENS-
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FAKULTÄT FÜR VERFAHRENS- UND SYSTEMTECHNIK

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1. Leitung

Prof. Dr. rer. nat. habil. Helmut Weiß (Dekan)
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2. Veröffentlichungen

Dissertationen

Baer, Stephan; Schmidt, Jürgen [Gutachter]; Specht, Eckehard [Gutachter]; Tobiska, Lutz [Gutachter]

Wärmeübergang bei der Sprühkühlung mit intermittierenden Sprays im Film- und Übergangssiedebereich.
- Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; 148 S.: graph. Darst.;

Binev, Daniel; Seidel-Morgenstern, Andreas [Gutachter]

Continuous fluidized bed crystallization. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015, 2014;
X, 161 S.: graph. Darst.;

Gao, Kaidi; Seidel-Morgenstern, Andreas [Gutachter]

Methane dehydro aromatization - thermodynamics, catalysts, kinetics and potential of membrane reactors.
- Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; X, 192 S.: III., graph. Darst.;

González Martínez, Isai; Sundmacher, Kai [Gutachter]

Hydrogen chloride electrolysis in a polymer-electrolyte-membrane reactor with oxygen-depolarized cathode.
- Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; 112 S.: graph. Darst.; 30 cm;

Heldt, Frank Stefan; Frensing, Timo [Gutachter]; Reichl, Udo [Gutachter]

Mathematical models of influenza A virus infection - from intracellular replication to virus growth in cell populations.
- Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015, 2014; XX, 190 S.: graph. Darst.;

Hertel, Christoph; Sundmacher, Kai [Gutachter]; Mangold, Michael [Gutachter]

Experimental and theoretical analysis of the cyclic water gas shift reactor. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; VIII, 117 S.: III., graph. Darst.;

Krietsch, Arne; Krause, Ulrich [Gutachter]

Untersuchung der Brand- und Explosionsgefahren von Nanostäuben. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; X, 124 Bl.: III., graph. Darst.;

Löhnert, Andrea; Krause, Ulrich [Gutachter]; Thévenin, Dominique [Gutachter]

Modellierung von Brandszenarien mit CFD unter Berücksichtigung des Einflusses der Brandrauchzusammensetzung auf die Toxizität und Sichtweiten. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; XII, 158 Bl.: III., graph. Darst.;

Neske, Michael; Krause, Ulrich [Gutachter]

Experimentelle Untersuchungen und theoretische Modellierung zu den Auswirkungen von Wärmeexposition auf Pressluftatmer, Vollmasken und Lungenautomaten. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; Magdeburg; XXIV, 203 S.: III., graph. Darst.; 30 cm;

Peschel, Britta; Reichl, Udo [Gutachter]; Marwan, Wolfgang [Gutachter]

Infection dynamics and virus-induced apoptosis in influenza virus A infected adherent and suspension MDCK cells. - Zugl.: Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; Aachen: Shaker; VI, 180 S.: III., graph. Darst.; 21 cm, 291 g - (Forschungsberichte aus dem Max-Planck-Institut für Dynamik komplexer technischer Systeme; 44), ISBN 978-3-8440-3738-8;

Specht, Eckehard [Gutachter]

Heat transfer analysis in metal quenching with sprays and jets. - Zugl.: Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; Barleben: docupoint; XIII, 151 S.: graph. Darst.; 21 cm, ISBN 978-3-86912-206-9;

Sroor, Farid Mohamed Ahmed; Edelmann, Frank T. [Gutachter]; Haak, Edgar

Synthesis, structure and catalytic activity of new lanthanide alkynylamidinates. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; IV, 148 S.: graph. Darst.;

Tschirschwitz, Rico; Krause, Ulrich [Gutachter]

Entwicklung von Bestimmungsverfahren für Explosionskenngrößen von Gasen und Dämpfen für nichtatmosphärische Bedingungen. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; XII, 168 Bl.: III., graph. Darst.;

Wassermann, Magdalena; Tsotsas, Evangelos [Gutachter]; Peglow, Mirko [Gutachter]

Niedertemperaturgranulierung von Mikroorganismen. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; XVII, 172 S.: III., graph. Darst.;

Zistl, Christiane; Krause, Ulrich [Gutachter]; Thévenin, Dominique [Gutachter]

File-based post-processing of DNS results for turbulent flames using MATLAB. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; 184 S.: graph. Darst.;

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Prof. Dr.-Ing. F. Beyrau
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2. Veröffentlichungen

Begutachtete Zeitschriftenaufsätze

Ashraf Ali, B.; Börner, Matthias; Peglow, Mirko; Janiga, Gábor; Seidel-Morgenstern, Andreas; Thévenin, Dominique
Coupled computational fluid dynamics-discrete element method simulations of a pilot-scale batch crystallizer
In: *Crystal growth & design*. - Washington, DC: ACS Publ, Bd. 15.2015, 1, S. 145-155;
[Imp.fact.: 4,558]

Berg, Philipp; Iosif, Christina; Ponsonnard, Sebastien; Yardin, Catherine; Janiga, Gábor; Mounayer, Charbel
Endothelialization of over- and undersized flow-diverter stents at covered vessel side branches - an in vivo and in silico study
In: *Journal of biomechanics: affiliated with the American Society of Biomechanics, the European Society of Biomechanics, the International Society of Biomechanics, the Japanese Society for Clinical Biomechanics and Related Research and the Australian and New Zealand Society of Biomechanics*. - Amsterdam [u.a.]: Elsevier Science, 2015;
<http://dx.doi.org/10.1016/j.jbiomech.2015.10.047>;
[Imp.fact.: 2,751]

Berg, Philipp; Roloff, Christoph; Beuing, Oliver; VoB, Samuel; Sugiyama, Shin-Ichiro; Aristokleous, Nicolas; Anayiotos, Andreas S.; Ashton, Neil; Revell, Alistair; Bressloff, Neil W.; Brown, Alistair G.; Jae Chung, Bong; Cebal, Juan R.; Copelli, Gabriele; Fu, Wenyu; Qiao, Aike; Geers, Arjan J.; Hodis, Simona; Dragomir-Daescu, Dan; Nordahl, Emily; Bora Suzen, Yildirim; Owais Khan, Muhammad; Valen-Sendstad, Kristian; Kono, Kenichi; Menon, Prahlad G.; Albal, Priti G.; Mierka, Otto; Münster, Raphael; Morales, Hernán G.; Bonnefous, Odile; Osman, Jan; Goubergrits, Leonid; Pallares, Jordi; Cito, Salvatore; Passalacqua, Alberto; Piskin, Senol; Pekkan, Kerem; Ramalho, Susana; Marques, Nelson; Sanchi, Stéphane; Schumacher, Kristopher R.; Sturgeon, Jess; Švihlová, Helena; Hron, Jaroslav; Usera, Gabriel; Mendina, Mariana; Xiang, Jianping; Meng, Hui; Steinman, David A.; Janiga, Gábor
The computational fluid dynamics rupture challenge 2013-Phase II - variability of hemodynamic simulations in two intracranial aneurysms
In: *Journal of biomechanical engineering*. - New York, NY: ASME; Vol. 137.2015, 12, Art. 121008, insgesamt 13 S.;
[Imp.fact.: 1,780]

Beyrau, Frank; Hadjipanayis, M. A.; Lindstedt, R. P.

Time-resolved temperature measurements for inert and reactive particles in explosive atmospheres
In: *Proceedings of the Combustion Institute*. - Amsterdam [u.a.]: Elsevier, Bd. 35.2015, 2, S. 2067-2074;
[Imp.fact.: 2,262]

Boye, Gunar; Schmidt, Jürgen; Beyrau, Frank

Analysis of flow boiling heat transfer in narrow annular gaps applying the design of experiments method

In: Advances in mechanical engineering. - New York, NY: Hindawi, Bd. 7.2015, 6, insges. 14 S.;
[Imp.fact.: 0,500]

Breuninger, Tobias; Schmidt, Jürgen; Tschöke, Helmut; Hese, Martin; Kufferath, Andreas; Altenschmidt, Frank
Optical investigations of the ignition-relevant spray characteristics from a Piezo-injector for spray-guided Spark-ignited engines

In: SAE International journal of engines. - Warrendale, Pa: Soc, Bd. 8.2015, 1, S. 89-100;

Cito, S.; Geers, A. J.; Arroyo, M. P.; Palero, V. R.; Pallarés, J.; Vernet, A.; Blasco, J.; San Román, L.; Fu, W.; Qiao, A.; Janiga, Gábor; Miura, Y.; Ohta, M.; Mendina, M.; Usera, G.; Frangi, A. F.

Accuracy and reproducibility of patient-specific hemodynamic models of stented intracranial aneurysms - report on the virtual intracranial stenting challenge 2011

In: Annals of biomedical engineering: the journal of the Biomedical Engineering Society. - Dordrecht [u.a.]: Springer Science + Business Media B.V, Bd. 43.2015, 1, S. 154-167;

[Imp.fact.: 3,195]

Daroczy, Laszlo; Janiga, Gábor; Petrasch, Klaus; Webner, Michael; Thévenin, Dominique

Comparative analysis of turbulence models for the aerodynamic simulation of H-Darrieus rotors

In: Energy: the international journal. - Amsterdam [u.a.]: Elsevier Science; Vol. 90.2015, Part 1, S. 680-690;

[Imp.fact.: 4,844]

Eshghinejadfard, Amir; Abdelsamie, Abouelmagd; Janiga, Gábor; Thévenin, Dominique

Direct-forcing immersed boundary lattice Boltzmann simulation of particle/fluid interactions for spherical and non-spherical particles

In: Particuology. - Amsterdam: Elsevier, 2015; <http://dx.doi.org/10.1016/j.partic.2015.05.004>;

[Imp.fact.: 2,110]

Fond, Benoit; Abram, Christopher; Beyrau, Frank

On the characterisation of tracer particles for thermographic particle image velocimetry

In: Applied physics / B. - Berlin: Springer, Bd. 118.2015, 3, S. 393-399;

[Imp.fact.: 1,634]

Glöckner, Hannes; Hagemeier, Thomas; Müller, Peter; Roloff, Christoph; Thévenin, Dominique; Tomas, Jürgen

Beschleunigter Sinkprozess fester Partikel bei laminarer und turbulenter Umströmung

In: Chemie - Ingenieur - Technik: CIT. - Weinheim: Wiley-VCH Verl, Bd. 87.2015, 5, S. 644-655;

[Imp.fact.: 0,661]

González, Álvaro Yáñez; Skinner, Stephen; Beyrau, Frank; Heyes, Andrew L.

Reusable thermal history sensing via oxidation of a divalent rare earth ion-based phosphor synthesized by the sol-gel process

In: Heat transfer engineering: an international journal. - London [u.a.]: Taylor & Francis, Bd. 36.2015, 14/15, S. 1275-1281;

[Imp.fact.: 0,814]

Hadjipanayis, M. A.; Beyrau, Frank; Lindstedt, R. P.; Atkinson, G.; Cusco, L.

Thermal radiation from vapour cloud explosions

In: Process safety and environmental protection. - Amsterdam: Elsevier, Bd. 94.2015, S. 517-527;

[Imp.fact.: 2,551]

Hagemeier, Thomas; Roloff, Christoph; Bück, Andreas; Tsotsas, Evangelos

Estimation of particle dynamics in 2-D fluidized beds using particle tracking velocimetry

In: Particuology. - Amsterdam: Elsevier, Bd. 22.2015, S. 39-51;

[Imp.fact.: 2,110]

Hallak, Bassem; Herz, Fabian; Specht, Eckehard; Gröpler, Robin; Warnecke, Gerald

Simulation of limestone calcination in normal shaft kilns - Part 1: mathematical model

In: Cement, lime, gypsum. - Gütersloh: Bauverl. BV, 9, S. 66-71, 2015;
[Imp.fact.: 0,071]

Hallak, Bassem; Herz, Fabian; Specht, Eckehard; Gröpler, Robin; Warnecke, Gerald

Simulation of limestone calcination in normal shaft kilns - Part 2: influence of process parameters

In: Cement, lime, gypsum. - Gütersloh: Bauverl. BV, 10, S. 46-50, 2015;
[Imp.fact.: 0,071]

Herz, Fabian; Mitov, I.; Specht, Eckehard; Stanev, R.

Influence of the motion behavior on the contact heat transfer between the covered wall and solid bed in rotary kilns

In: Experimental heat transfer. - London: Taylor & Francis, Bd. 28.2015, S. 174-188;
[Imp.fact.: 0,400]

Janiga, Gábor; Berg, Philipp; Sugiyama, S.; Kono, K.; Steinman, D. A.

The computational fluid dynamics rupture challenge 2013-phase I: prediction of rupture status in intracranial aneurysms

In: American journal of neuroradiology: AJNR. - Oak Brook, Ill: Soc, Bd. 36.2015, 3, S. 530-536;
[Imp.fact.: 3,589]

Janiga, Gábor; Daróczy, László; Berg, Philipp; Thévenin, Dominique; Skalej, Martin; Beuing, Oliver

An automatic CFD-based flow diverter optimization principle for patient-specific intracranial aneurysms

In: Journal of biomechanics: affiliated with the American Society of Biomechanics, the European Society of Biomechanics, the International Society of Biomechanics, the Japanese Society for Clinical Biomechanics and Related Research and the Australian and New Zealand Society of Biomechanics. - Amsterdam [u.a.]: Elsevier Science, Bd. 48.2015, 14, S. 3846-3852;
[Imp.fact.: 2,751]

Karali, Mohamed A.; Sunkara, Koteswara Rao; Herz, Fabian; Specht, Eckehard

Experimental analysis of a flighted rotary drum to assess the optimum loading

In: Chemical engineering science. - Amsterdam [u.a.]: Elsevier Science, Bd. 138.2015, S. 772-779;
[Imp.fact.: 2,337]

Komossa, H.; Wirtz, S.; Scherer, V.; Herz, Fabian; Specht, Eckehard

Heat transfer in indirect heated rotary drums filled with monodisperse spheres: Comparison of experiments with DEM simulations

In: Powder technology: an international journal on the science and technology of wet and dry particulate systems. - Amsterdam [u.a.]: Elsevier Science, Bd. 286.2015, S. 722-731;
[Imp.fact.: 2,349]

Mann, Hannes; Müller, Peter; Hagemeyer, Thomas; Roloff, Christoph; Thévenin, Dominique; Tomas, Jürgen

Analytical description of the unsteady settling of spherical particles in Stokes and Newton regimes

In: Granular matter. - Berlin: Springer, Bd. 17.2015, 5, S. 629-644;
[Imp.fact.: 1,775]

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

Thermographic laser Doppler velocimetry

In: Optics letters. - Washington, DC: Soc, Bd. 40.2015, 20, S. 4759-4762;
[Imp.fact.: 3,292]

Penumakala, Pavan Kumar; Nallathambi, Ashok Kumar; Specht, Eckehard; Urlau, Ulrich; Unifantowicz, Paulina

Theoretical estimation of solidification length of continuously cast metals

In: Applied thermal engineering: design, processes, equipment, economics. - Amsterdam [u.a.]: Elsevier Science, Bd. 84.2015, S. 286-291;
[Imp.fact.: 2,739]

Rauchegger, Christian; Bayley, Susan; Schröder, Volkmar; Thévenin, Dominique

Dispersion of heavy gases - experimental results and numerical simulations

In: Process safety progress: AIChE, American Institute of Chemical Engineers. - New York, NY: Inst, Bd. 34.2015, 3, S. 280-285;

[Imp.fact.: 0,464]

Refaey, Hassanein A.; Specht, Eckehard; Salem, M. R.

Influence of fuel distribution and heat transfer on energy consumption in tunnel kilns

In: International Journal of Advances in Engineering & Technology: IJAET. - [S.I.], Bd. 8.2015, 3, S. 281-293;

[Imp.fact.: 2,350]

Schulz, Florian; Schmidt, Jürgen; Beyrau, Frank

Development of a sensitive experimental set-up for LIF fuel wall film measurements in a pressure vessel

In: Experiments in fluids: experimental methods and their applications to fluid flow; research journal. - Berlin: Springer, Bd. 56.2015, 5, insges. 16 S.;

[Imp.fact.: 1,907]

Sponfeldner, T.; Boxx, I.; Beyrau, Frank; Hardalupas, Y.; Meier, W.; aylor, A. M. K. P.

On the alignment of fluid-dynamic principal strain-rates with the 3D flamelet-normal in a premixed turbulent V-flame

In: Proceedings of the Combustion Institute. - Amsterdam [u.a.]: Elsevier, Bd. 35.2015, 2, S. 1269-1276;

[Imp.fact.: 2,262]

Sponfeldner, Thomas; Soulopoulos, Nikolaos; Beyrau, Frank; Hardalupas, Yannis; Taylor, Alex M. K. P.; Vassilicos, J. Christos

The structure of turbulent flames in fractal- and regular-grid-generated turbulence

In: Combustion and flame: the journal of the Combustion Institute. - Amsterdam [u.a.]: Elsevier Science, Bd. 162.2015, 9, S. 3379-3393;

[Imp.fact.: 3,082]

Sunkara, Koteswara Rao; Herz, Fabian; Specht, Eckehard; Mellmann, Jochen

Transverse flow at the flight surface in flighted rotary drum

In: Powder technology. - Amsterdam [u.a.]: Elsevier Science, Bd. 275.2015, S. 161-171;

[Imp.fact.: 2,269]

Yañez Gonzalez, A.; Pilgrim, C. C.; Feist, J. P.; Sollazzo, P. Y.; Beyrau, Frank; Heyes, A. L.

On-Line temperature measurement inside a thermal barrier sensor coating during engine operation

In: Journal of turbomachinery. - New York, NY: ASME; Vol. 137.2015, 10, Art. 101004, insgesamt 9 S.;

[Imp.fact.: 1,003]

Yañez-González, Álvaro; Ruiz-Trejo, Enrique; Wachem, Berend van; Skinner, Stephen; Beyrau, Frank; Heyes, Andrew

A detailed characterization of BaMgAl 100 17:Eu phosphor as a thermal history sensor for harsh environments

In: Sensors and actuators <Lausanne> / A. - Amsterdam [u.a.]: Elsevier Science, Bd. 234.2015, S. 339-345;

[Imp.fact.: 1,903]

Yu, Hai; Janiga, Gábor; Thévenin, Dominique

Computational fluid dynamics-based design optimization method for archimedes screw blood pumps

In: Artificial organs: official journal of the International Society for Artificial Organs and the International Faculty for Artificial Organs. - Oxford [u.a.]: Wiley-Blackwell, 2015; <http://dx.doi.org/10.1111/aor.12567>;

[Imp.fact.: 2,050]

Zhang, Yu; Wang, Junfeng; Redemann, Tino; Specht, Eckehard

Thermal behavior of kiln cars while traveling through a tunnel kiln

In: Advances in mechanical engineering. - New York, NY: Hindawi, Bd. 7.2015, 5, insges. 8 S.;

[Imp.fact.: 0,500]

Nicht begutachtete Zeitschriftenaufsätze

Hallak, Bassem; Herz, Fabian; Specht, Eckehard; Gröpler, Robin; Warnecke, Gerald

Simulation of limestone calcination in normal shaft kilns - mathematical model

In: ZKG international: Bundesverband der Deutschen Zementindustrie; Bundesverband der Deutschen Kalkindustrie; Bundesverband der Gips- und Gipsbauplattenindustrie. - Walluf: Bauverl, Bd. 68.2015, 9, S. 66-71;

Redemann, Tino; Specht, Eckehard; Rimpel, Eckhard

Limitations of the use of circulation systems and their influence on the temperature and velocity profile in tunnel kilns

In: Ziegelindustrie international: ZI. - Gütersloh: Bauverl, Bd. 68.2015, 4, S. 35-41;

Specht, Eckehard; Sauerhering, Jörg; Schmidt, Jürgen

Abwärmennutzung von Industrieöfen zur Strom- und Kälteerzeugung

In: Gaswärme international: Zeitschrift für gasbeheizte Thermoprozesse; GWI; 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, Bd. 64.2015, 4, S. 49-55;

Specht, Eckehard; Sauerhering, Jörg; Schmidt, Jürgen

Using waste heat for electricity generation and cooling

In: Heat processing: international magazine for industrial furnaces, heat treatment plants, equipment. - Essen: Vulkan-Verl., 3, S. 113-119, 2015;

Buchbeiträge

Abdelsamie, Abouelmagd; Thévenin, Dominique

Modulation of isotropic turbulence by resolved and non-resolved spherical particles

In: Fröhlich, Jochen.: Direct and Large-Eddy Simulation IX. - Cham: Springer International Publishing, S. 621-629, 2015;

Berg, Philipp; Abdelsamie, Abouelmagd; Janiga, Gábor

Possible transitional flow in a giant intracranial aneurysm: finite volume approach versus Direct Numerical Simulation

In: CMBE15: 4th International Conference on Computational & Mathematical Biomedical Engineering 29th June - 1st July, 2015, Cachan (Paris) France. - Swansea: CMBE, S. 567-570;

Buchtatj, Denis; Dragomirov, Plamen; Thévenin, Dominique; Beyrau, Frank; Bartel, Dirk

Numerische Strömungsberechnung von dieselmotorischen Vorgängen

In: Smart, effizient, mobil: 12. Magdeburger Maschinenbau-Tage; 30. September und 1. Oktober 2015. - Magdeburg: Univ.; 2015, Beitrag A8-4, insgesamt 11 S.;

Dietzsch, F.; Hasse, C.; Fru, Gordon; Thévenin, Dominique

The influence of differential diffusion in turbulent oxygen enhanced methane flames

In: Fröhlich, Jochen.: Direct and Large-Eddy Simulation IX. - Cham: Springer International Publishing, S. 511-517, 2015 - (ERCOFTAC Series; 20);

Dragomirov, Plamen; Sauerhering, Jörg; Beyrau, Frank; Schmidt, Jürgen; Rottengruber, Hermann

Investigation of the combustion of alternative diesel fuels in an optical engine

In: Internationaler Motorenkongress 2015: mit Nutzfahrzeugmotoren - Spezial. - Wiesbaden: Springer Vieweg, S. 465-466;

[Kapitel: Verbrennung Dieselmotor];

Fru, Gordon; Thévenin, Dominique; Markus, Detlev

Direct numerical simulations of turbulent H₂-air pre-mixtures and analysis towards safety-relevant ignition prediction

In: Fröhlich, Jochen.: Direct and Large-Eddy Simulation IX. - Cham: Springer International Publishing, S. 525-531, 2015
- (ERCOTAC Series; 20);

Glaßer, Sylvia; Hoffmann, Thomas; Boese, Axel; Voß, Samuel; Kalinski, Thomas; Skalej, Martin; Preim, Bernhard
Histology-based evaluation of optical coherence tomographic characteristics of the cerebral artery wall via virtual inflating

In: VCBM 2015: Eurographics Workshop on Visual Computing for Biology and Medicine. - Eurographics Ass., insges. 10 S.;

Janiga, Gábor; Fru, Gordon; Abdelsamie, Abouelmagd; Thévenin, Dominique

Probability of hotspot ignition in turbulent hydrogen-air mixtures using Direct Numerical Simulations

In: Proceedings of the European Combustion Meeting. - Budapest; 2015, Beitrag P3-81, insgesamt 6 S.[Beitrag auf USB-Stick];

Kerst, Kristin; Medeiros de Souza, Luis; Bartz, Antje; Seidel-Morgenstern, Andreas; Janiga, Gábor

CFD-DEM simulation of a fluidized bed crystallization reactor

In: Computer aided chemical engineering. - Amsterdam [u.a.]: Elsevier, Bd. 37.2015, S. 263-268;

Kovats, Peter; Thévenin, Dominique; Zähringer, Katharina

Experimentelle Untersuchung von Strömungsfeldern in den Zwischenräumen grober Schüttungen

In: Lasermethoden in der Strömungsmesstechnik: 23. Fachtagung, 8. - 10. September 2015, Dresden. - Karlsruhe: Deutsche Gesellschaft für Laser-Anemometrie GALA e.V.; 2015, Art. 54, insgesamt 7 S.;

Specht, Eckehard; Mohammadpour, Kamyar; Al-Khalaf, Mohammed Ridha

Ermittlung der Flammenlänge von gasförmigen Brennstoffen in Schachttöfen

In: Verbrennung und Feuerung: 27. Deutscher Flammentag, Clausthal-Zellerfeld, 16. und 17. September 2015.
- Düsseldorf: VDI-Verl., S. 291-299 - (VDI-Berichte; 2267);

Theile, Martin; Hassel, E.; Thévenin, Dominique; Buchholz, B.

Analyse der Gemischbildung eines saughubeinspritzenden Ottomotors mit der Grobstruktursimulation

In: Smart, effizient, mobil: 12. Magdeburger Maschinenbau-Tage; 30. September und 1. Oktober 2015. - Magdeburg: Univ.; 2015, Beitrag A8-1, insgesamt 11 S.[Beitrag auf CD-ROM];

Voß, Samuel; Glaßer, Sylvia; Hoffmann, Thomas; Janiga, Gábor

Fluid-Struktur-Simulationen von zerebralen Blutgefäßen und Aneurysmen

In: Smart, effizient, mobil: 12. Magdeburger Maschinenbau-Tage; 30. September und 1. Oktober 2015. - Magdeburg: Univ.; 2015, Beitrag B-2, insgesamt 10 S.[Beitrag auf CD-ROM];

Zähringer, Katharina; Wagner, Lisa-Maria; Kovats, Peter; Thévenin, Dominique

Experimental characterization of the mass transfer from gas to liquids in a two-phase bubble column

In: 7th International Berlin Workshop - IBW7 on Transport Phenomena with Moving Boundaries and More: 30th - 31st October 2014. - Düsseldorf: VDI-Verl, S. 82-90, 2015 - (Fortschritt-Berichte VDI: Reihe 3, Verfahrenstechnik; 947);

Zeit, Volker; Varga, Patrick; Schmidt, Jürgen; Rottengruber, Hermann

Simulation of heat transfer with variation on the operating conditions

In: Proceedings of the 2nd Conference on Engine Processes: July 2-3, 2015, Berlin, Germany. - Berlin, S. 339-355;

Zhao, Peng; Specht, Eckehard; Song, Xin Nan

Influence of jet velocities and material properties in quenching of metal with array of jets

In: Advanced materials research. - Zug: Scitec Publ, Bd. 1090.2015, S. 63-68;

Artikel in Kongressbänden

Daroczy, Laszlo; Janiga, Gábor; Thévenin, Dominique

Correlation of the power coefficients of H-Darrieurs wind turbines obtained using different turbulence models in CFD

computations

In: Conference on Modelling Fluid Flow, CMFF '15. - Budapest; 2015, Beitrag CMFF15-017, insgesamt 8 S.[Beitrag auf USB-Stick];

Daroczy, Laszlo; Mohamed, M. H.; Thévenin, Dominique

Numerical aero-acoustics assessment of double-airfoil vertical axis wind turbine

In: Fortschritte der Akustik: DAGA 2015, Nürnberg; 16. - 19. März 2015; 41. Jahrestagung für Akustik; Tagungsband. - Berlin: Dt. Ges. für Akustik, S. 534-537;

Eger, Toni; Thévenin, Dominique; Janiga, Gábor; Bol, Thomas; Schroth, Rüdiger

Numerical investigations of residence time distribution of air in electric machines based on a canonical configuration

In: Conference on Modelling Fluid Flow, CMFF '15. - Budapest; 2015, Beitrag CMFF15-034, insgesamt 8 S.[Beitrag auf USB-Stick];

Eshghinejadfard, Amir; Janiga, Gábor; Thévenin, Dominique

Calculation of the permeability in porous media using the Lattice Boltzmann method

In: Conference on Modelling Fluid Flow, CMFF '15. - Budapest; 2015, Beitrag CMFF15-052, insgesamt 7 S.[Beitrag auf USB-Stick];

Herz, Fabian; Hallak, Bassem; Specht, Eckehard

Experimental study of the combustion of lum py coke and anthracite particles

In: 10th European Conference on Industrial Furnaces and Boilers: INFUB; Gaia (Porto), Hotel Holiday Inn Gaia, Portugal, 7 - 10 April 2015. - Gaia (Porto), insges. 8 S.;

Herz, Fabian; Hallak, Bassem; Specht, Eckehard; Gröpler, Robin; Warnecke, Gerald

Simulation of the limestone calcination in normal shaft kilns

In: 10th European Conference on Industrial Furnaces and Boilers: INFUB; Gaia (Porto), Hotel Holiday Inn Gaia, Portugal, 7 - 10 April 2015. - Gaia (Porto), insges. 10 S.;

Komossa, Hendrik; Wirtz, S.; Scherer, Viktor; Herz, Fabian; Specht, Eckehard

DEM investigation of transversal mixing and temperature evolution in rotary drums

In: Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT 2015. - EDAS, S. 743-748;

Kovats, Peter; Thévenin, Dominique; Zähringer, Katharina

Fluidodynamical characterization of a bubble column for investigation of mass-transfer

In: Conference on Modelling Fluid Flow, CMFF '15. - Budapest; 2015, Beitrag 67, insgesamt 7 S.;

Meyer, Jan; Daroczy, Laszlo; Janiga, Gábor; Thévenin, Dominique

Using 3D shape optimization to reduce turbulent mixing losses inside the rotor cavity of a Pitot-Tube-Jet-Pump for fluid-fluid separation

In: Conference on Modelling Fluid Flow, CMFF '15. - Budapest; 2015, Beitrag CMFF15-064, insgesamt 8 S.[Beitrag auf USB-Stick];

Nafsun, Aainaa; Herz, Fabian; Specht, Eckehard; Komossa, Hendrik; Wirtz, S.

Experimental investigation of thermal bed mixing in rotary drums

In: Proceedings of the 11th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, HEFAT 2015. - EDAS, S. 643-648;

Ranga Dinesh, K. K. J.; Shalaby, H.; Luo, K. H.; Thévenin, Dominique

Influence of preferential diffusion in turbulent lean premixed hydrogen-rich syngas spherical flames at elevated pressure

In: Proceedings of the European Combustion Meeting. - Budapest; 2015, Betrag P4-28, insgesamt 6 S.;

Ranga Dinesh, K.K.J.; Shalaby, H.; Luo, K.H.; Thévenin, Dominique

Flame structure analysis for turbulent lean premixed spherical flames at elevated pressures

In: Proceedings of the European Combustion Meeting. - Budapest; 2015, Betrag P4-27, insgesamt 6 S.;

Schiebl, R.; Bykov, V.; Maas, U.; Abdelsamie, Abouelmagd; Thévenin, Dominique

The (mis)alignment of diffusive fluxes in turbulent combustion: DNS analysis and treatment in the Reaction-Diffusion Manifold (REDIM) model

In: Proceedings of the European Combustion Meeting. - Budapest; 2015, Beitrag P4-63, insgesamt 6 S.;

Zähringer, Katharina; Pliavaka, K.; Thévenin, Dominique

Influence of oxygen excitation by a RF plasma discharge on the flow field of atmospheric partially-premixed CH₄/O₂ and H₂/O₂ flames

In: Proceedings of the European Combustion Meeting. - Budapest; 2015, Beitrag P5-22, insgesamt 5 S.;

Dissertationen

Backofen, Dennis; Tschöke, Helmut [Gutachter]; Schmidt, Jürgen [Gutachter]

Höchstdruckeinspritzung alternativer Dieselmotoren. - Zugl.: Magdeburg, Univ., Fak. für Maschinenbau, Diss., 2015; Göttingen: Cuvillier Verl.; 184 S.: graph. Darst., ISBN 978-3-7369-9139-2;

Baer, Stephan; Schmidt, Jürgen [Gutachter]; Specht, Eckehard [Gutachter]; Tobiska, Lutz [Gutachter]

Wärmeübergang bei der Sprühkühlung mit intermittierenden Sprays im Film- und Übergangssiedebereich. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; 148 S.: graph. Darst.;

Berg, Philipp; Specht, Eckehard [Gutachter]; Thévenin, Dominique [Gutachter]

CFD-basierte hämodynamische Untersuchung patientenspezifischer intrakranieller Aneurysmen. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015, 2014; XI, 206 S.: graph. Darst.;

Karali, Mohamed Ahmed Mahmoud; Specht, Eckehard [Gutachter]; Herz, Fabian [Gutachter]

Analysis study of the axial transport and heat transfer of a flighted rotary drum operated at optimum loading. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; XVIII, 125 S.: graph. Darst.;

Löhnert, Andrea; Krause, Ulrich [Gutachter]; Thévenin, Dominique [Gutachter]

Modellierung von Brandszenarien mit CFD unter Berücksichtigung des Einflusses der Brandrauchzusammensetzung auf die Toxizität und Sichtweiten. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; XII, 158 Bl.: III., graph. Darst.;

Specht, Eckehard [Gutachter]

Heat transfer analysis in metal quenching with sprays and jets. - Zugl.: Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; Barleben: docupoint; XIII, 151 S.: graph. Darst.; 21 cm, ISBN 978-3-86912-206-9;

Yu, Hai; Thévenin, Dominique [Gutachter]

Flow design optimization of blood pumps considering hemolysis. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; XII, 133 S.: graph. Darst.;

Zistl, Christiane; Krause, Ulrich [Gutachter]; Thévenin, Dominique [Gutachter]

File-based post-processing of DNS results for turbulent flames using MATLAB. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; 184 S.: graph. Darst.;

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Jun.-Prof. Dr. Timo Frensing
Dr.-Ing. Andreas Voigt
Dipl.-Phys. Diethard Kürschner

2. Veröffentlichungen

Begutachtete Zeitschriftenaufsätze

Ashraf Ali, B.; Börner, Matthias; Peglow, Mirko; Janiga, Gábor; Seidel-Morgenstern, Andreas; Thévenin, Dominique
Coupled computational fluid dynamics-discrete element method simulations of a pilot-scale batch crystallizer
In: Crystal growth & design. - Washington, DC: ACS Publ, Bd. 15.2015, 1, S. 145-155;
[Imp.fact.: 4,558]

Bachmann, Philipp; Tsotsas, Evangelos
Analysis of residence time distribution data in horizontal fluidized beds
In: Procedia engineering. - Amsterdam [u.a.]: Elsevier, Bd. 102.2015, S. 790-798;

Bajcinca, N.; Hofmann, S.; Bielievtsov, D.; Sundmacher, Kai
Approximate ODE models for population balance systems
In: Computers & chemical engineering. - Amsterdam [u.a.]: Elsevier Science, Bd. 74.2015, S. 158-168;
[Imp.fact.: 2,452]

Bibi, Sameena; Qamar, Shamsul; Seidel-Morgenstern, Andreas
Irreversible and reversible reactive chromatography - analytical solutions and moment analysis for rectangular pulse injections
In: Journal of chromatography / A. - New York, NY [u.a.]: Science Direct, Bd. 1385.2015, S. 49-62;
[Imp.fact.: 4,258]

Binev, D.; Seidel-Morgenstern, Andreas; Lorenz, H.
Study of crystal size distributions in a fluidized bed crystallizer
In: Chemical engineering science. - Amsterdam [u.a.]: Elsevier Science, Bd. 133.2015, S. 116-124;
[Imp.fact.: 2,613]

Borne, Sabine Le; Eisenschmidt, Holger; Sundmacher, Kai

Image-based analytical crystal shape computation exemplified for potassium dihydrogen phosphate (KDP)
In: Chemical engineering science. - Amsterdam [u.a.]: Elsevier Science, Bd. 139.2016, S. 61-74;
[Imp.fact.: 2,613]

Bück, Andreas; Casciatori, Fernanda; Thoméo, João Cláudio; Tsotsas, Evangelos

Model-based control of enzyme yield in solid state fermentation
In: Procedia engineering. - Amsterdam [u.a.]: Elsevier, Bd. 102.2015, S. 362-371;

Bück, Andreas; Palis, Stefan; Tsotsas, Evangelos

Model-based control of particle properties in fluidised bed spray granulation
In: Powder technology. - Amsterdam [u.a.]: Elsevier Science; Vol. 270.2014, Part B, S. 575-583, 2015;
[Imp.fact.: 2,269]

Calín-Sánchez, Ángel; Kharaghani, Abdolreza; Lech, Krzysztof; Figiel, Adam; Carbonell-Barrachina, Ángel A.; Tsotsas, Evangelos

Drying kinetics and microstructural and sensory properties of black chokeberry (aronia melanocarpa) as affected by drying method
In: Food and bioprocess technology: an international journal. - New York, NY: Springer Science + Business Media, LLC, Bd. 8.2015, 1, S. 63-74;
[Imp.fact.: 3,126]

Chauhan, Garima; Stein, Matthias; Seidel-Morgenstern, Andreas; Pant, Kamal K.; Nigam, Krishna D. P.

The thermodynamics and biodegradability of chelating agents upon metal extraction
In: Chemical engineering science. - Amsterdam [u.a.]: Elsevier Science, Bd. 137.2015, S. 768-785;
[Imp.fact.: 2,613]

Do, T. Q. N.; Varni i , M.; Flassig, Robert; Vidakovi -Koch, T.; Sundmacher, Kai

Dynamic and steady state 1-D model of mediated electron transfer in a porous enzymatic electrode
In: Bioelectrochemistry: official journal of the Bioelectrochemical Society; an international journal devoted to electrochemical aspects of biology and biological aspects of electrochemistry. - Amsterdam [u.a.]: Elsevier Science; Vol. 106.2015, Part A, S. 3-13;
[Imp.fact.: 4,172]

Dreyschultze, C.; Neugebauer, Christoph; Palis, Stefan; Bück, Andreas; Tsotsas, Evangelos; Heinrich, Stefan; Kienle, Achim

Influence of zone formation on stability of continuous fluidized bed layering granulation with external product classification
In: Particuology. - Amsterdam: Elsevier, Bd. 23.2015, S. 1-7;
[Imp.fact.: 2,110]

Eisenschmidt, Holger; Voigt, Andreas; Sundmacher, Kai

Face-specific growth and dissolution kinetics of potassium dihydrogen phosphate crystals from batch crystallization experiments
In: Crystal growth & design. - Washington, DC: ACS Publ, Bd. 15.2015, S. 219-227; 10.1021/cg501251e;
[Imp.fact.: 4,558]

Flassig, Robert; Migal, Iryna; Zalm, Esther van der; Rihko-Struckmann, Liisa; Sundmacher, Kai

Rational selection of experimental readout and intervention sites for reducing uncertainties in computational model predictions
In: BMC bioinformatics. - London: BioMed Central; Vol. 16.2015, Art. 13, insgesamt 13 S. ;
[Imp.fact.: 2,670]

Freising, Timo

Defective interfering viruses and their impact on vaccines and viral vectors
In: Biotechnology journal: BTJ. - Weinheim: Wiley-VCH, Bd. 10.2015, 5, S. 681-689;

[Imp.fact.: 3,708]

Fricke, Michael; Voigt, Andreas; Veit, Peter; Sundmacher, Kai

Miniemulsion-based process for controlling the size and shape of zinc oxide nanoparticles

In: Industrial & engineering chemistry research. - Columbus, Ohio: American Chemical Society, Bd. 54.2015, 42, S. 10293-10300;

[Imp.fact.: 2,587]

Galan, Kamila; Eicke, Matthias J.; Elsner, Martin P.; Lorenz, Heike; Seidel-Morgenstern, Andreas

Continuous preferential crystallization of chiral molecules in single and coupled mixed-suspension mixed-product-removal crystallizers

In: Crystal growth & design. - Washington, DC: ACS Publ, Bd. 15.2015, 4, S. 1808-1818;

[Imp.fact.: 4,558]

Gallo-Ramírez, Lili Esmeralda; Nikolay, Alexander; Genzel, Yvonne; Reichl, Udo

Bioreactor concepts for cell culture-based viral vaccine production

In: Expert review of vaccines. - London: Informa Healthcare, Bd. 14.2015, 9, S. 1181-1195;

[Imp.fact.: 4,210]

Glöckner, Hannes; Hagemeyer, Thomas; Müller, Peter; Roloff, Christoph; Thévenin, Dominique; Tomas, Jürgen

Beschleunigter Sinkprozess fester Partikel bei laminarer und turbulenter Umströmung

In: Chemie - Ingenieur - Technik: CIT. - Weinheim: Wiley-VCH Verl, Bd. 87.2015, 5, S. 644-655;

[Imp.fact.: 0,661]

Grabherr, Reingard; Reichl, Udo

Editorial: Can modern vaccine technology pursue the success of traditional vaccine manufacturing?

In: Biotechnology journal: BTJ. - Weinheim: Wiley-VCH, Bd. 10.2015, 5, S. 657-658;

[Imp.fact.: 3,708]

Hagemeyer, Thomas; Börner, Matthias; Bück, Andreas; Tsotsas, Evangelos

A comparative study on optical techniques for the estimation of granular flow velocities

In: Chemical engineering science. - Amsterdam [u.a.]: Elsevier Science, Bd. 131.2015, S. 63-75;

[Imp.fact.: 2,613]

Hagemeyer, Thomas; Bück, Andreas; Tsotsas, Evangelos

Estimation of particle rotation in fluidized beds by means of PTV

In: Procedia engineering. - Amsterdam [u.a.]: Elsevier, Bd. 102.2015, S. 841-849;

Hagemeyer, Thomas; Roloff, Christoph; Bück, Andreas; Tsotsas, Evangelos

Estimation of particle dynamics in 2-D fluidized beds using particle tracking velocimetry

In: Particuology. - Amsterdam: Elsevier, Bd. 22.2015, S. 39-51;

[Imp.fact.: 2,110]

Heldt, Frank S.; Kupke, Sascha Y.; Dori, Sebastian; Reichl, Udo; Frensing, Timo

Single-cell analysis and stochastic modelling unveil large cell-to-cell variability in influenza A virus infection

In: Nature Communications. - London: Nature Publishing Group; Vol. 6.2015, Art. 8938, insgesamt 12 S.;

[Imp.fact.: 11,470]

Hentschel, Benjamin; Kiedorf, Gregor; Gerlach, Martin; Hamel, Christof; Seidel-Morgenstern, Andreas; Freund, Hannsjörg; Sundmacher, Kai

Model-based identification and experimental validation of the optimal reaction route for the hydroformylation of 1-dodecene

In: Industrial & engineering chemistry research. - Columbus, Ohio: American Chemical Society, Bd. 54.2015, 6, S. 1755-1765;

[Imp.fact.: 2,235]

Heyer, Robert; Kohrs, Fabian; Reichl, Udo; Benndorf, Dirk

Metaproteomics of complex microbial communities in biogas plants

In: Microbial biotechnology. - Oxford: Wiley-Blackwell, Bd. 8.2015, 5, S. 749-763;

[Imp.fact.: 3,081]

Hoffmann, Torsten; Rieck, Christian; Bück, Andreas; Peglow, Mirko; Tsotsas, Evangelos

Influence of granule porosity during fluidized bed spray granulation

In: Procedia engineering. - Amsterdam [u.a.]: Elsevier, Bd. 102.2015, S. 458-467;

Hoffmann, Torsten; Rieck, Christian; Schmidt, Martin; Bück, Andreas; Peglow, Mirko; Tsotsas, Evangelos

Prediction of shell porosities in continuous fluidized bed spray layering

In: Drying technology: an international journal. - Philadelphia, Pa: Taylor & Francis, Bd. 33.2015, 13, S. 1662-1670;

[Imp.fact.: 1,518]

Horváth, Zoltán; Horosanskaia, Elena; Lee, Ju Weon; Lorenz, Heike; Gilmore, Kerry; Seeberger, Peter H.; Seidel-Morgenstern, Andreas

Recovery of artemisinin from a complex reaction mixture using continuous chromatography and crystallization

In: Organic process research & development: web edition. - Washington, DC: ACS Publ, Bd. 19.2015, 6, S. 624-634;

[Imp.fact.: 2,528]

Hussain, Mubashir; Kumar, Jitendra; Tsotsas, Evangelos

A new approach in population balance modeling of spray fluidized bed agglomeration

In: Procedia engineering. - Amsterdam [u.a.]: Elsevier, Bd. 102.2015, S. 1399-1407;

Hussain, Mubashir; Kumar, Jitendra; Tsotsas, Evangelos

A new framework for population balance modeling of spray fluidized bed agglomeration

In: Particuology. - Amsterdam: Elsevier, Bd. 19.2015, S. 141-154;

[Imp.fact.: 1,648]

Hussain, Mubashir; Kumar, Jitendra; Tsotsas, Evangelos

Modeling aggregation kinetics of fluidized bed spray agglomeration for porous particles

In: Powder technology. - Amsterdam [u.a.]: Elsevier Science; Vol. 270.2015, Part B, S. 584-591;

[Imp.fact.: 2,499]

Hylton, Rebecca K.; Tizzard, Graham J.; Threlfall, Terence L.; Ellis, Amy L.; Coles, Simon J.; Seaton, Colin C.; Schulze, Eric; Lorenz, Heike; Seidel-Morgenstern, Andreas; Stein, Matthias; Price, Sarah L.

Are the crystal structures of enantiopure and racemic mandelic acids determined by kinetics or thermodynamics?

In: Journal of the American Chemical Society: web edition. - Washington, DC: American Chemical Society, Bd. 137.2015,

34, S. 11095-11104;

[Imp.fact.: 12,113]

Idakiev, Vesselin; Mörl, Lothar

Methode zur Untersuchung der Partikelbewegung in diskontinuierlich und kontinuierlich arbeitenden Wirbelschichten

In: Chemie - Ingenieur - Technik: CIT. - Weinheim: Wiley-VCH Verl, Bd. 87.2015, 5, S. 626-637;

[Imp.fact.: 0,661]

Idakiev, Vesselin V.; Marx, Sebastian; Roßau, Antje; Bück, Andreas; Tsotsas, Evangelos; Mörl, Lothar

Inductive heating of fluidized beds - influence on fluidization behavior

In: Powder technology: an international journal on the science and technology of wet and dry particulate systems.

- Amsterdam [u.a.]: Elsevier Science, Bd. 286.2015, S. 90-97;

[Imp.fact.: 2,349]

Imani Moqadam, Saeedeh; Mirdrikvand, Mojtaba; Roozbehani, Behrooz; Kharaghani, Abdolreza; Shishehsaz,

Mohammad Reza

Polystyrene pyrolysis using silica-alumina catalyst in fluidized bed reactor

In: Clean technologies and environmental policy. - Berlin: Springer, Bd. 17.2015, 7, S. 1847-1860;

[Imp.fact.: 1,934]

Jörke, Andreas; Seidel-Morgenstern, Andreas; Hamel, Christof

Isomerization of 1-decene - estimation of thermodynamic properties, equilibrium composition calculation and experimental validation using a Rh-BIPHEPHOS catalyst

In: The chemical engineering journal. - Amsterdam: Elsevier, Bd. 260.2015, S. 513-523;

[Imp.fact.: 4,058]

Jörke, Andreas; Triemer, Susann; Seidel-Morgenstern, Andreas; Hamel, Christof

Kinetic investigation exploiting local parameter subset selection - isomerization of 1-decene using a Rh-Biphephos catalyst

In: Chemie - Ingenieur - Technik: CIT. - Weinheim: Wiley-VCH Verl, Bd. 87.2015, 6, S. 713-725;

[Imp.fact.: 0,661]

Karst, Florian; Maestri, Matteo; Freund, Hannsjörg; Sundmacher, Kai

Reduction of microkinetic reaction models for reactor optimization exemplified for hydrogen production from methane

In: The chemical engineering journal. - Amsterdam: Elsevier, Bd. 281.2015, S. 981-994;

[Imp.fact.: 4,321]

Karsten, Christina B.; Buettner, Falk F. R.; Cajic, Samanta; Nehlmeier, Inga; Neumann, Berit; Klippert, Antonina; Sauer mann, Ulrike; Reichl, Udo; Gerardy-Schahn, Rita; Rapp, Erdmann; Stahl-Hennig, Christiane; Pöhlmann, Stefan

Exclusive decoration of simian immunodeficiency virus Env with high-mannose type N-glycans is not compatible with mucosal transmission in rhesus macaques

In: Journal of virology: publ. by the American Society for Microbiology. - Baltimore, Md: Soc, Bd. 89.2015, 22, S. 11727-11733;

[Imp.fact.: 4,439]

Khalloufi, Seddik; Kharaghani, Abdolreza; Almeida-Rivera, Cristhian; Nijse, Jaap; Dalen, Gerard van; Tsotsas, Evangelos

Monitoring of initial porosity and new pores formation during drying - a scientific debate and a technical challenge

In: Trends in food science & technology. - Amsterdam [u.a.]: Elsevier Science, Bd. 45.2015, 2, S. 179-186;

[Imp.fact.: 4,651]

Kluge, Sabine; Benndorf, Dirk; Genzel, Yvonne; Scharfenberg, Klaus; Rapp, Erdmann; Reichl, Udo

Monitoring changes in proteome during stepwise adaptation of a MDCK cell line from adherence to growth in suspension

In: Vaccine. - Amsterdam: Elsevier, Bd. 33.2015, 35, S. 4269-4280;

[Imp.fact.: 3,624]

Kohrs, Fabian; Wolter, Sophie; Benndorf, Dirk; Heyer, Robert; Hoffmann, Marcus; Rapp, Erdmann; Bremges, Andreas; Sczyrba, Alexander; Schlüter, Andreas; Reichl, Udo

Fractionation of biogas plant sludge material improves metaproteomic characterization to investigate metabolic activity of microbial communities

In: Proteomics. - Weinheim: Wiley VCH, Bd. 15.2015, 20, S. 3585-3589;

[Imp.fact.: 3,807]

Kolmeder, Carolin A.; Ritari, Jarmo; Verdam, Froukje J.; Muth, Thilo; Keskitalo, Salla; Varjosalo, Markku; Fuentes, Susana; Greve, Jan Willem; Buurman, Wim A.; Reichl, Udo; Rapp, Erdmann; Martens, Lennart; Palva, Airi; Salonen, Anne; Rensen, Sander S.; Vos, Willem M. de

Colonic metaproteomic signatures of active bacteria and the host in obesity

In: Proteomics. - Weinheim: Wiley VCH, Bd. 15.2015, 20, S. 3544-3552;

[Imp.fact.: 3,807]

Kumar, Jitendra; Saha, Jitraj; Tsotsas, Evangelos

Development and convergence analysis of a finite volume scheme for solving breakage equation

In: SIAM journal on numerical analysis. - Philadelphia, Pa: SIAM, Bd. 53.2015, 4, S. 1672-1689;

[Imp.fact.: 1,788]

Langermann, Jan von; Temmel, Erik; Seidel-Morgenstern, Andreas; Lorenz, Heike

Solid phase behavior in the chiral systems of various 2-hydroxy-2-phenylacetic acid (mandelic acid) derivatives

In: Journal of chemical & engineering data. - Columbus, Ohio: American Chemical Society, Bd. 60.2015, 3, S. 721-728;

[Imp.fact.: 2,045]

Laske, Tanja; Heldt, Frank Stefan; Hoffmann, Helene; Frensing, Timo; Reichl, Udo

Modeling the intracellular replication of influenza A virus in the presence of defective interfering RNAs

In: Virus research: an international journal of molecular and cellular virology. - Amsterdam [u.a.]: Elsevier Science, Bd.

213.2015, S. 90-99;

[Imp.fact.: 2,324]

Lautenschleger, Anna; Kenig, Eugeny Y.; Voigt, Andreas; Sundmacher, Kai

Model-based analysis of a gas/vapor-liquid microchannel membrane contactor

In: AIChE journal. - Hoboken, NJ: Wiley, Bd. 61.2015, 7, S. 2240-2256;

[Imp.fact.: 2,748]

Le Borne, Sabine; Shahmuradyan, Lusine; Sundmacher, Kai

Fast evaluation of univariate aggregation integrals on equidistant grids

In: Computers & chemical engineering: an international journal of computer applications in chemical engineering.

- Amsterdam [u.a.]: Elsevier Science, Bd. 74.2015, S. 115-127;

[Imp.fact.: 2,452]

Mangold, Michael; Feng, Lihong; Khlopov, Dmytro; Palis, Stefan; Benner, Peter; Binev, Daniel; Seidel-Morgenstern, Andreas

Nonlinear model reduction of a continuous fluidized bed crystallizer

In: Journal of computational and applied mathematics. - Amsterdam [u.a.]: North-Holland, Bd. 289.2015, S. 253-266;

[Imp.fact.: 1,266]

Mann, Hannes; Müller, Peter; Hagemeyer, Thomas; Roloff, Christoph; Thévenin, Dominique; Tomas, Jürgen

Analytical description of the unsteady settling of spherical particles in Stokes and Newton regimes

In: Granular matter. - Berlin: Springer, Bd. 17.2015, 5, S. 629-644;

[Imp.fact.: 1,775]

McBride, Kevin; Gaide, Tom; Vorholt, Andreas; Behr, Arno; Sundmacher, Kai

Thermomorphic solvent selection for homogeneous catalyst recovery based on COSMO-RS

In: Chemical engineering and processing. - Amsterdam [u.a.]: Elsevier, 2015; <http://dx.doi.org/10.1016/j.cep.2015.07.004>;

[Imp.fact.: 2,071]

McBride, Kevin; Sundmacher, Kai

Data driven conceptual process design for the hydroformylation of 1-dodecene in a thermomorphic solvent system

In: Industrial & engineering chemistry research. - Columbus, Ohio: American Chemical Society, Bd. 54.2015, 26, S. 6761-6771;

[Imp.fact.: 2,587]

Melnikov, Sergey M.; Höltzel, Alexandra; Seidel-Morgenstern, Andreas; Tallarek, Ulrich

Evaluation of aqueous and nonaqueous binary solvent mixtures as mobile phase alternatives to water/acetonitrile mixtures for hydrophilic interaction liquid chromatography by molecular dynamics simulations

In: The journal of physical chemistry <Washington, DC> / C. - Washington, DC: Soc, Bd. 119.2015, 1, S. 512-523;

[Imp.fact.: 4,835]

Meyer, Katja; Bück, Andreas; Tsotsas, Evangelos

Dynamic multi-zone population balance model of particle formulation in fluidized bed
In: Procedia engineering. - Amsterdam [u.a.]: Elsevier, Bd. 102.2015, S. 1456-1465;

Müller, Peter; Böttcher, Ronny; Russell, Alexander; Truee, Michael; Tomas, Jürgen

A novel approach to evaluate the elastic impact of spheres on thin plates
In: Chemical engineering science. - Amsterdam [u.a.]: Elsevier Science, Bd. 138.2015, S. 689-697;
[Imp.fact.: 2,613]

Müller, Peter; Glöckner, Hannes; Tomas, Jürgen

Numerische und analytische Beschreibung der mechanischen Eigenschaften quasi-tetraederförmiger Agglomerate
In: Chemie - Ingenieur - Technik: CIT. - Weinheim: Wiley-VCH Verl, Bd. 87.2015, 7, S. 976-985;
[Imp.fact.: 0,661]

Müller, Peter; Russell, Alexander; Seidenbecher, Jakob; Tomas, Jürgen

Mechanische Eigenschaften zyklisch be- und entfeuchteter Zeolithgranulate
In: Chemie - Ingenieur - Technik: CIT. - Weinheim: Wiley-VCH Verl, Bd. 87.2015, 10, S. 1402-1411;
[Imp.fact.: 0,661]

Müller, Peter; Russell, Alexander; Seidenbrecher, Jakob; Tomas, Jürgen

progressive weakening of zeolite granules due to cyclic moisture loading and unloading
In: Microporous and mesoporous materials: the official journal of the International Zeolite Association. - Amsterdam [u.a.]: Elsevier, Bd. 211.2015, S. 88-96;
[Imp.fact.: 3,450]

Müller, Peter; Russell, Alexander; Tomas, Jürgen

Einfluss des Bindemittels und der Feuchtebelastung auf die Festigkeit von Zeolith 4A-Granulaten
In: Chemie - Ingenieur - Technik: CIT. - Weinheim: Wiley-VCH Verl, Bd. 87.2015, 5, S. 549-558;
[Imp.fact.: 0,661]

Müller, Peter; Russell, Alexander; Tomas, Jürgen

Influence of binder and moisture content on the strength of zeolite 4A granules
In: Chemical engineering science. - Amsterdam [u.a.]: Elsevier Science, Bd. 126.2015, S. 204-215;
[Imp.fact.: 2,613]

Müller, Peter; Thomas, Jürgen

Untersuchung des Druckverhaltens tetraederförmiger Agglomerate
In: Chemie - Ingenieur - Technik: CIT. - Weinheim: Wiley-VCH Verl, Bd. 87.2015, 7, S. 1-11;
[Imp.fact.: 0,661]

Müller, Peter; Truee, Michael; Böttcher, Ronny; Tomas, Jürgen

Acoustic evaluation of the impact of moist spherical granules and glass beads
In: Powder technology: an international journal on the science and technology of wet and dry particulate systems. - Amsterdam [u.a.]: Elsevier Science, Bd. 278.2015, S. 138-149;
[Imp.fact.: 2,269]

Muth, Thilo; Behne, Alexander; Heyer, Robert; Kohrs, Fabian; Benndorf, Dirk; Hoffmann, Marcus; Lehtevä, Miro; Reichl, Udo; Martens, Lennart; Rapp, Erdmann

The MetaProteomeAnalyzer - a powerful open-source software suite for metaproteomics data analysis and interpretation
In: Journal of proteome research. - Washington, DC: ACS Publications, Bd. 14.2015, 3, S. 1557-1565;
[Imp.fact.: 5,001]

Muth, Thilo; Kolmeder, Carolin A.; Salojärvi, Jarkko; Keskitalo, Salla; Varjosalo, Markku; Verdam, Froukje J.; Rensen,

Sander S.; Reichl, Udo; Vos, Willem M. de; Rapp, Erdmann; Martens, Lennart

Navigating through metaproteomics data - a logbook of database searching

In: Proteomics. - Weinheim: Wiley VCH, Bd. 15.2015, 20, S. 3439-3453;

[Imp.fact.: 3,807]

Nikoli, Daliborka; Seidel-Morgenstern, Andreas; Petkovska, Menka

Nonlinear frequency response analysis of forced periodic operation of non-isothermal CSTR with simultaneous modulation of inlet concentration and inlet temperature

In: Chemical engineering science. - Amsterdam [u.a.]: Elsevier Science, Bd. 133.2015, S. 40-58;

[Imp.fact.: 2,613]

Parveen, Sadia; Qamar, Shamsul; Seidel-Morgenstern, Andreas

Two-dimensional non-equilibrium model of liquid chromatography: Analytical solutions and moment analysis

In: Chemical engineering science. - Amsterdam [u.a.]: Elsevier Science, Bd. 122.2015, S. 64-77;

[Imp.fact.: 2,613]

Pirwitz, Kristin; Flassig, Robert J.; Rihko-Struckmann, Liisa K.; Sundmacher, Kai

Energy and operating cost assessment of competing harvesting methods for *D. salina* in a β -carotene production process

In: Algal Research: Biology, Biomass and Biofuels. - Amsterdam [u.a.]: Elsevier, Bd. 12.2015, S. 161-169;

[Imp.fact.: 5,014]

Pirwitz, Kristin; Rihko-Struckmann, Liisa; undmacher, Kai

Comparison of flocculation methods for harvesting *Dunaliella*

In: Bioresource technology. - Amsterdam [u.a.]: Elsevier Science, Bd. 196.2015, S. 145-152;

[Imp.fact.: 4,494]

Pisarevskiy, Alexander; Aman, Sergej; Tatmyshevskiy, K.; Hirsch, S.; Tomas, Jürgen

Light emission during impact stressing of a particle layer

In: Measurement science and technology: devoted to the theory, practice and application of measurement in physics, chemistry, engineering and the environmental and life sciences from inception to commercial exploitation. - Bristol: IOP Publ; Vol. 26.2015, 4, Art. 045103; <http://dx.doi.org/10.1088/0957-0233/26/4/045103>;

[Imp.fact.: 1,352]

Püttker, Sebastian; Kohrs, Fabian; Benndorf, Dirk; Heyer, Robert; Rapp, Erdmann; Reichl, Udo

Metaproteomics of activated sludge from a wastewater treatment plant - a pilot study

In: Proteomics. - Weinheim: Wiley VCH, Bd. 15.2015, 20, S. 3596-3601;

[Imp.fact.: 3,807]

Rieck, Christian; Bück, Andreas; Tsotsas, Evangelos

Stochastic modelling of particle coating in fluidized beds

In: Procedia engineering. - Amsterdam [u.a.]: Elsevier, Bd. 102.2015, S. 996-1005;

Rieck, Christian; Hoffmann, Torsten; Bück, Andreas; Peglow, Mirko; Tsotsas, Evangelos

Influence of drying conditions on layer porosity in fluidized bed spray granulation

In: Powder technology. - Amsterdam [u.a.]: Elsevier Science, Bd. 272.2015, S. 120-131;

[Imp.fact.: 2,269]

Rihko-Struckmann, Liisa K.; Datta, Pradyot; Wenzel, Marcus; Sundmacher, Kai; Dharanipragada, N. V. R. A.; Poelman, Hilde; Galvita, Vladimir V.; Marin, Guy B.

Hydrogen and carbon monoxide production by chemical looping over iron-aluminium oxides

In: Energy technology: generation, conversion, storage, distribution. - Weinheim [u.a.]: Wiley-VCH, 2015; <http://dx.doi.org/10.1002/ente.201500231>;

[Imp.fact.: 2,824]

Russell, Alexander; Aman, Sergej; Tomas, Jürgen

Breakage probability of granules during repeated loading

In: Powder technology. - Amsterdam [u.a.]: Elsevier Science, Bd. 269.2015, S. 541-547, 2014;
[Imp.fact.: 2,269]

Russell, Alexander; Schmelzer, Janett; Müller, Peter; Krüger, Manja; Tomas, Jürgen

Mechanical properties and failure probability of compact agglomerates

In: Powder technology: an international journal on the science and technology of wet and dry particulate systems.
- Amsterdam [u.a.]: Elsevier Science, Bd. 286.2015, S. 546-556;
[Imp.fact.: 2,349]

Schmidt, Martin; Bück, Andreas; Tsotsas, Evangelos

Experimental investigation of process stability of continuous spray fluidized bed layering with internal separation

In: Chemical engineering science. - Amsterdam [u.a.]: Elsevier Science, Bd. 126.2015, S. 55-66;
[Imp.fact.: 2,613]

Schmidt, Martin; Hoffmann, Torsten; Bück, Andreas; Tsotsas, Evangelos

Experimental investigation of the continuous fluidized bed spray granulation with internal classification

In: Procedia engineering. - Amsterdam [u.a.]: Elsevier, Bd. 102.2015, S. 565-574;

Schmidt, Martin; Rieck, Christian; Bück, Andreas; Tsotsas, Evangelos

Experimental investigation of process stability of continuous spray fluidized bed layering with external product separation

In: Chemical engineering science. - Amsterdam [u.a.]: Elsevier Science, Bd. 137.2015, S. 466-475;
[Imp.fact.: 2,613]

Schneider, Romy; Hosy, Eric; Kohl, Johannes; Klueva, Julia; Choquet, Daniel; Thomas, Ulrich; Voigt, Andreas; Heine, Martin

Mobility of calcium channels in the presynaptic membrane

In: Neuron. - [Cambridge, Mass.]: Cell Press, Bd. 86.2015, 3, S. 672-679;
[Imp.fact.: 15,054]

Serve, Anja; Pieler, Michael Martin; Benndorf, Dirk; Rapp, Erdmann; Wolff, Michael Werner; Reichl, Udo

Comparison of influenza virus particle purification using magnetic sulfated cellulose particles with an established centrifugation method for analytics

In: Analytical chemistry: the authoritative voice of the analytical community. - Columbus, Ohio: American Chemical Society, Bd. 87.2015, 21, S. 10708-10711;
[Imp.fact.: 5,636]

Siitonen, Jani; Mänttari, Mika; Seidel-Morgenstern, Andreas; Sainio, Tuomo

Robustness of steady state recycling chromatography with an integrated solvent removal unit

In: Journal of chromatography / A. - New York, NY [u.a.]: Science Direct, Bd. 1391.2015, S. 31-39;
[Imp.fact.: 4,258]

Sondej, Franziska; Bück, Andreas; Koslowsky, Katharina; Bachmann, Philipp; Jacob, Michael; Tsotsas, Evangelos

Investigation of coating layer morphology by micro-computed X-ray tomography

In: Powder technology. - Amsterdam [u.a.]: Elsevier Science, Bd. 273.2015, S. 165-175;
[Imp.fact.: 2,499]

Sondej, Franziska; Bück, Andreas; Tsotsas, Evangelos

Comparative analysis of the coating thickness on single particles using X-ray micro-computed tomography and confocal laser-scanning microscopy

In: Powder technology: an international journal on the science and technology of wet and dry particulate systems.
- Amsterdam [u.a.]: Elsevier Science, Bd. 287.2015, S. 330-340;
[Imp.fact.: 2,349]

Sun, Yu; Kharaghani, Abdolreza; Metzger, Thomas; Müller, Jörg; Tsotsas, Evangelos

Lotion distribution in wet wipes investigated by pore network simulation and X-ray micro tomography

In: Transport in porous media: TIPM. - Dordrecht [u.a.]: Springer Science + Business Media B.V, Bd. 107.2015, 2, S. 449-468;

[Imp.fact.: 1,460]

Taratin, Nikolay; Lorenz, Heike; Binev, Daniel; Seidel-Morgenstern, Andreas; Kotelnikova, Elena

Solubility equilibria and crystallographic characterization of the L-threonine/l-allo-threonine system, Part 2: crystallographic characterization of solid solutions in the threonine diastereomeric system

In: Crystal growth & design: integrating the fields of crystal engineering and crystal growth for the synthesis and applications of new materials. - Washington, DC: American Chemical Society, Bd. 15.2015, 1, S. 137-144;

[Imp.fact.: 4,558]

Theuerl, Susanne; Kohrs, Fabian; Benndorf, Dirk; Maus, Irena; Wibberg, Daniel; Schlüter, Andres; Kausmann, Robert; Heiermann, Monika; Rapp, Erdmann; Reichl, Udo; Pühler, Alfred; Klocke, Michael

Community shifts in a well-operating agricultural biogas plant - how process variations are handled by the microbiome

In: Applied microbiology and biotechnology. - Berlin: Springer, Bd. 99.2015, 18, S. 7791-7803;

[Imp.fact.: 3,337]

Tsotsas, Evangelos

Multiscale approaches to processes that combine drying with particle formation

In: Drying technology: an international journal. - Philadelphia, Pa: Taylor & Francis, Bd. 33.2015, 15/16, S. 1859-1871;

[Imp.fact.: 1,518]

Varni i , M.; Vidakovi -Koch, T.; Sundmacher, Kai

Erratum: Gluconic acid synthesis in an electroenzymatic reactor [Electrochimica Acta (2015) 174 (480-487)]

In: Electrochimica acta: the journal of the International Society of Electrochemistry (ISE). - New York, NY [u.a.]: Elsevier, Bd. 176.2015, S. 1523;

[Imp.fact.: 4,504]

Varni i , M.; Vidakovi -Koch, T.; Sundmacher, Kai

Gluconic acid synthesis in an electroenzymatic reactor

In: Electrochimica acta: the journal of the International Society of Electrochemistry (ISE). - New York, NY [u.a.]: Elsevier, Bd. 174.2015, S. 480-487;

[Imp.fact.: 4,504]

Vorhauer, Nicole; Wang, Yujing; Kharaghani, Abdolreza; Tsotsas, Evangelos; Prat, Marc

Drying with formation of capillary rings in a model porous medium

In: Transport in porous media: TIPM. - Dordrecht [u.a.]: Springer Science + Business Media B.V, Bd. 110.2015, 2, S. 197-223;

[Imp.fact.: 1,460]

Wu, Rui; Kharaghani, Abdolreza; Tsotsas, Evangelos

Two-phase flow with capillary valve effect in porous media

In: Chemical engineering science. - Amsterdam [u.a.]: Elsevier Science, Bd. 139.2016, S. 241-248;

[Imp.fact.: 2,613]

Zarekar, Sayali; Bück, Andreas; Jacob, Michael; Tsotsas, Evangelos

Reconsideration of the hydrodynamic behavior of fluidized beds operated under reduced pressure

In: Powder technology: an international journal on the science and technology of wet and dry particulate systems. - Amsterdam [u.a.]: Elsevier Science, Bd. 287.2015, S. 169-176;

[Imp.fact.: 2,349]

Zhou, Teng; Lyu, Zhaoxian; Qi, Zhiwen; Sundmacher, Kai

Robust design of optimal solvents for chemical reactions-A combined experimental and computational strategy

In: Chemical engineering science. - Amsterdam [u.a.]: Elsevier Science, Bd. 137.2015, S. 613-625;

[Imp.fact.: 2,337]

Zhou, Teng; McBride, Kevin; Zhang, Xiang; Qi, Zhiwen; Sundmacher, Kai

Integrated solvent and process design exemplified for a Diels-Alder reaction

In: AIChE Journal. - Hoboken, NJ: Wiley, Bd. 61.2015, 1, S. 147-158;

[Imp.fact.: 2,581]

Buchbeiträge

Eisenschmidt, Holger; Bajcinca, Naim; Sundmacher, Kai

Model-based observation and design of crystal shapes via controlled growth-dissolution cycles

In: 12th International Symposium on Process Systems Engineering and 25th European Symposium on Computer Aided Process Engineering. - Amsterdam [u.a.]: Elsevier, S. 1673-1678, 2015 - (Computer-aided chemical engineering; 37);

El Sibai, Ali; Rihko-Struckmann, Liisa; Sundmacher, Kai

Synthetic methane from CO₂ - dynamic optimization of the sabatier process for power-to-gas applications

In: Computer aided chemical engineering. - Amsterdam [u.a.]: Elsevier, Bd. 37.2015, S. 1157-1162;

Flassig, Robert J.; Fachet, Melanie; Rihko-Struckmann, Liisa; Sundmacher, Kai

Robust process design for the bioproduction of β -carotene in green microalgae

In: 12th International Symposium on Process Systems Engineering and 25th European Symposium on Computer Aided Process Engineering. - Amsterdam [u.a.]: Elsevier, S. 2117-2122, 2015 - (Computer-aided chemical engineering; 37);

Hopf, Talea; Kockentiedt, Sarah; Henrich-Noack, Petra; Tomas, Jürgen; Sabel, Bernhard

Entwicklung Oberflächenmodifizierter Nanopartikel-Formulierungen zwecks Überwindung der Blut-Hirn-Schranke

In: Teipel, Ulrich.: Produktgestaltung in der Partikeltechnologie, Band 7: 7. Symposium Partikeltechnologie, 23. - 24.

April 2015, Fraunhofer-Forum, Berlin. - Stuttgart: Fraunhofer Verl., S. 345-367

Kongress: Symposium Partikeltechnologie; 7 (Berlin): 2015.04.23-24;

Jaskulski, Maciej; Tran, Thi Thu Hang; Avila-Acevedo, Juan Gabriel; Tsotsas, Evangelos

Experimental determination of drying kinetics of skim-milk suspended droplet

In: First Nordic Baltic Drying Conference: 17-19 Juni 2015, Gdańsk, Poland; proceedings. - Gdańsk, insges. 8 S.[Beitrag auf USB-Stick];

Jaskulski, Maciej; Tran, Hang Tran Thi; Avila-Acevedo, Juan; Tsotsas, Evangelos

An advanced modeling and experimental validation of single droplet drying process

In: Food science research and innovation: delivering sustainable solutions to the global economy and society: 29th EFFost International Conference. - Elsevier, S. 58-63, 2015;

Kerst, Kristin; Medeiros de Souza, Luis; Bartz, Antje; Seidel-Morgenstern, Andreas; Janiga, Gábor

CFD-DEM simulation of a fluidized bed crystallization reactor

In: Computer aided chemical engineering. - Amsterdam [u.a.]: Elsevier, Bd. 37.2015, S. 263-268;

Kharaghani, Abdolreza; Kirsch, Christoph; Metzger, Thomas; Tsotsas, Evangelos

Liquid distribution and structural changes during convective drying of gels

In: Colloid process engineering. - Cham [u.a.]: Springer International Publishing, S. 93-112, 2015;

Le Kieu, Hiep; Kharaghani, Abdolreza; Tsotsas, Evangelos

Pore network simulation of heat and mass transfer in superheated steam drying

In: EuroDrying'2015: 5th European Drying Conference, October 21-23, 2015, Budapest, Hungary; proceedings. - Szent István University, S. 211-219;

Mader-Arndt, Katja; Kutelova, Zinaida; Tomas, Jürgen

Microscopic particle contact adhesion models and macroscopic behavior of surface modified particles

In: Particle adhesion and removal. - Hoboken [u.a.]: John Wiley [u.a.], S. 105-155, 2015;

McBride, Kevin; Sundmacher, Kai

Computer-aided design of solvents for the recovery of a homogeneous catalyst used for alkene hydroformylation
In: 12th International Symposium on Process Systems Engineering and 25th European Symposium on Computer Aided Process Engineering. - Amsterdam [u.a.]: Elsevier, S. 2075-2080, 2015 - (Computer-aided chemical engineering; 37);

Mehakpreet, Singh; Kumar, Jitendra; Bück, Andreas

A volume conserving discrete formulation of aggregation population balance equations on non-uniform meshes
In: MATHMOD 2015: 8th Vienna Conference on Mathematical Modelling, February 18 - 20, 2015, Vienna University of Technology, Austria; abstract volume. - Vienna: ARGESIM, S. 192-197
Kongress: MATHMOD; 8 (Vienna): 2015.02.18-20;

Müller, Peter; Böttcher, Ronny; Trüe, Michael; Tomas, Jürgen

Einfluss elastischer Wellen beim elastischen Stossvorgang
In: Teipel, Ulrich.: Produktgestaltung in der Partikeltechnologie, Band 7: 7. Symposium Partikeltechnologie, 23. - 24. April 2015, Fraunhofer-Forum, Berlin. - Stuttgart: Fraunhofer Verl., S. 47-66
Kongress: Symposium Partikeltechnologie; 7 (Berlin): 2015.04.23-24;

Radeva, Zheni; Müller, Peter; Tomas, Jürgen

Untersuchungen des Einflusses der Prozessparameter auf die Bruchfestigkeit von Zeolith 4A Pellets
In: Teipel, Ulrich.: Produktgestaltung in der Partikeltechnologie, Band 7: 7. Symposium Partikeltechnologie, 23. - 24. April 2015, Fraunhofer-Forum, Berlin. - Stuttgart: Fraunhofer Verl., S. 299-311
Kongress: Symposium Partikeltechnologie; 7 (Berlin): 2015.04.23-24;

Rahimi, Arman; Kharaghani, Abdolreza; Metzger, Thomas; Tsotsas, Evangelos

Pore network model for drying of salt solutions - solute migration and crystallization
In: First Nordic Baltic Drying Conference: 17-19 Juni 2015, Gda sk, Poland; proceedings. - Gda sk, insges. 15 S.[Beitrag auf USB-Stick];

Rahimi, Arman; Kharaghani, Abdolreza; Metzger, Thomas; Tsotsas, Evangelos

Pore network simulation of salt crystallization in drying porous media
In: EuroDrying'2015: 5th European Drying Conference, October 21-23, 2015, Budapest, Hungary; proceedings. - Szent István University, S. 345-352;

Rieck, Christian; Bück, Andreas; Tsotsas, Evangelos

Modeling of layering growth processes using a Monte Carlo approach
In: MATHMOD 2015: 8th Vienna Conference on Mathematical Modelling, February 18 - 20, 2015, Vienna University of Technology, Austria; abstract volume. - Vienna: ARGESIM, S. 99-104
Kongress: MATHMOD; 8 (Vienna): 2015.02.18-20;

Sundmacher, Kai

Multi-level design of process systems for efficient chemicals production and energy conversion
In: 12th International Symposium on Process Systems Engineering and 25th European Symposium on Computer Aided Process Engineering. - Amsterdam [u.a.]: Elsevier, S. 25-34, 2015 - (Computer-aided chemical engineering; 37);

Tran, Thi Thu Hang; Jaskulski, Maciej; Peglow, Mirko; Avila-Acevedo, Juan Gabriel; Tsotsas, Evangelos

A new validated model for single droplet drying process
In: First Nordic Baltic Drying Conference: 17-19 Juni 2015, Gda sk, Poland; proceedings. - Gda sk, insges. 10 S.[Beitrag auf USB-Stick];

Zinser, Alexander; Ye, Kkongmeng; Rihko-Struckmann, Liisa; Sundmacher, Kai

A dynamic method for computing thermodynamic equilibria in process simulation
In: Computer aided chemical engineering. - Amsterdam [u.a.]: Elsevier, Bd. 37.2015, S. 299-304;

Artikel in Kongressbänden

Bück, Andreas; Neugebauer, Christoph; Meyer, Katja; Palis, Stefan; Diez, E.; Kienle, Achim; Heinrich, Stefan; Tsotsas, Evangelos

Influence of operation parameters on process stability in continuous fluidized bed layering with external classification
In: 7th International Granulation Workshop: Sheffield, UK, 2015. - Sheffield, insges. 11 S.[Beitrag auf USB-Stick];

Hagemeier, Thomas; Jiang, Zhaochen; Bück, Andreas; Tsotsas, Evangelos

Discrete analysis of particle collision behavior in fluidized beds
In: 7th International Granulation Workshop: Sheffield, UK, 2015. - Sheffield, insges. 11 S.[Beitrag auf USB-Stick];

Hopf, Talea; Kockentiedt, Sarah; Hintz, Werner; Henrich-Noack, Petra; Tomas, Jürgen; Sabel, Bernhard

Development and characterization of surface modified nanoparticle formulations in terms of size and surface properties
In: 8th International Conference on Conveying and Handling of Particulate Solids (CHOPS 2015). - Tel-Aviv; 2015, Art. 082, insgesamt 13 S.[Beitrag auf USB-Stick];

Mielke, Lisa; Hoffmann, Torsten; Peglow, Mirko; Henneberg, Markus; Bück, Andreas; Tsotsas, Evangelos

Reduction of energy consumption in batch fluidized bed layering granulation processes by temporal separation
In: 7th International Granulation Workshop: Sheffield, UK, 2015. - Sheffield, insges. 14 S.[Beitrag auf USB-Stick];

Pashminehazar, Reihaneh; Kharaghani, Abdolreza; Tsotsas, Evangelos

Micro-structure of maltodextrin agglomerates produced by fluidized bed
In: 7th International Granulation Workshop: Sheffield, UK, 2015. - Sheffield, insges. 16 S.[Beitrag auf USB-Stick];

Rieck, Christian; Bück, Andreas; Tsotsas, Evangelos

Stochastic modeling of layering growth processes in fluidized beds
In: 7th International Granulation Workshop: Sheffield, UK, 2015. - Sheffield, insges. 15 S.[Beitrag auf USB-Stick];

Saha, Jitraj; Kumar, Jitendra; Bück, Andreas; Tsotsas, Evangelos

Finite volume approximations of population balance equations
In: 7th International Granulation Workshop: Sheffield, UK, 2015. - Sheffield, insges. 12 S.[Beitrag auf USB-Stick];

Sondej, Franziska; Bück, Andreas; Tsotsas, Evangelos

Experimental analysis of the microstructure of single particles
In: 7th International Granulation Workshop: Sheffield, UK, 2015. - Sheffield, insges. 20 S.[Beitrag auf USB-Stick];

Dissertationen

Binev, Daniel; Seidel-Morgenstern, Andreas [Gutachter]

Continuous fluidized bed crystallization. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015, 2014; X, 161 S.: graph. Darst.;

Gao, Kaidi; Seidel-Morgenstern, Andreas [Gutachter]

Methane dehydro aromatization - thermodynamics, catalysts, kinetics and potential of membrane reactors.
- Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; X, 192 S.: III., graph. Darst.;

González Martínez, Isai; Sundmacher, Kai [Gutachter]

Hydrogen chloride electrolysis in a polymer-electrolyte-membrane reactor with oxygen-depolarized cathode.
- Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; 112 S.: graph. Darst.; 30 cm;

Hampel, Neli Atanasova; Tsotsas, Evangelos [Gutachter]

Diskontinuierliches und kontinuierliches Pelletcoating im Wurster-Wirbelschichtprozess. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; XV, 203 Bl.: graph. Darst.;

Heldt, Frank Stefan; Frensing, Timo [Gutachter]; Reichl, Udo [Gutachter]

Mathematical models of influenza A virus infection - from intracellular replication to virus growth in cell populations.

- Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015, 2014; XX, 190 S.: graph. Darst.;

Hertel, Christoph; Sundmacher, Kai [Gutachter]; Mangold, Michael [Gutachter]

Experimental and theoretical analysis of the cyclic water gas shift reactor. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; VIII, 117 S.: III., graph. Darst.;

Müller, Thomas; Kienle, Achim [Gutachter]; Reichl, Udo [Gutachter]

Population balance modeling of influenza A virus replication in MDCK cells during vaccine production. - Magdeburg, Univ., Fak. für Elektrotechnik und Informationstechnik, Diss., 2015; X, 127 S.: graph. Darst.;

Peschel, Britta; Reichl, Udo [Gutachter]; Marwan, Wolfgang [Gutachter]

Infection dynamics and virus-induced apoptosis in influenza virus A infected adherent and suspension MDCK cells.

- Zugl.: Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; Aachen: Shaker; VI, 180 S.: III., graph. Darst.; 21 cm, 291 g - (Forschungsberichte aus dem Max-Planck-Institut für Dynamik komplexer technischer Systeme; 44), ISBN 978-3-8440-3738-8;

Wassermann, Magdalena; Tsotsas, Evangelos [Gutachter]; Peglow, Mirko [Gutachter]

Niedertemperaturgranulierung von Mikroorganismen. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; XVII, 172 S.: III., graph. Darst.;

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1. Leitung

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Dr.-Ing. Dieter Gabel
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2. Veröffentlichungen

Begutachtete Zeitschriftenaufsätze

Addai, Emmanuel Kwasi; Gabel, Dieter; Krause, Ulrich

Experimental investigation on the minimum ignition temperature of hybrid mixtures of dusts and gases or solvents
In: Journal of hazardous materials: environmental control, risk assessment, impact and management. - New York, NY
[u.a.]: Science Direct, 2015; <http://dx.doi.org/10.1016/j.jhazmat.2015.09.006>;
[Imp.fact.: 4,529]

Addai, Emmanuel Kwasi; Gabel, Dieter; Krause, Ulrich

Explosion characteristics of three component hybrid mixtures
In: Process safety and environmental protection. - Amsterdam: Elsevier, 2015; <http://dx.doi.org/10.1016/j.psep.2015.06.013>;
[Imp.fact.: 2,551]

Addai, Emmanuel Kwasi; Gabel, Dieter; Krause, Ulrich

Lower explosion limit of hybrid mixtures of burnable gas and dust
In: Journal of loss prevention in the process industries. - Amsterdam [u.a.]: Elsevier Science, 2015; <http://dx.doi.org/10.1016/j.jlp.2015.02.014>;
[Imp.fact.: 1,347]

Addai, Emmanuel Kwasi; Gabel, Dieter; Krause, Ulrich

Models to estimate the minimum ignition temperature of dusts and hybrid mixtures
In: Journal of hazardous materials: environmental control, risk assessment, impact and management. - New York, NY
[u.a.]: Science Direct, 2015; <http://dx.doi.org/10.1016/j.jhazmat.2015.10.015>;
[Imp.fact.: 4,529]

Annan, Joe-Steve; Addai, Emmanuel Kwasi; Tulashie, Samuel K.

A call for action to improve occupational health and safety in Ghana and a critical look at the existing legal requirement and legislation
In: Safety and health at work. - Incheon: Occupational Safety and Health Research Inst, 2015; <http://dx.doi.org/10.1016/>

j.shaw.2014.12.002;

Chen, Zhongbing; Kuschik, Peter; Paschke, Heidrun; Kästner, Matthias; Köser, Heinz

The dynamics of low-chlorinated benzenes in a pilot-scale constructed wetland and a hydroponic plant root mat treating sulfate-rich groundwater

In: Environmental science and pollution research. - Berlin: Springer, Bd. 22.2015, 5, S. 3886-3894;

[Imp.fact.: 2,757]

Dranga, Beatrice-Andreea; Köser, Heinz

Increased co-oxidation activity for mercury under hot and cold site coal power plant conditions - preparation and evaluation of Au/TiO₂-coated SCR-DeNO_x catalysts

In: Applied catalysis. - Amsterdam: Elsevier Applied catalysis / B, Bd. 166/167.2015, S. 302-312;

Götze, Oliver; Richter, Johannes; Zinke, Ronald; Farnell, D. J. J.

Ground-state properties of the triangular-lattice Heisenberg antiferromagnet with arbitrary spin quantum number s

In: Journal of magnetism and magnetic materials: MMM. - Amsterdam: North-Holland Publ. Co, Bd. 397.2015, S. 333-341;

[Imp.fact.: 1,970]

Hecht, Kristin; Bey, Oliver; Etmüller, Jürgen; Graefen, Patrick; Friehmelt, Rainer; Nilles, Michael

Effect of gas density on gas holdup in bubble columns

In: Chemie - Ingenieur - Technik: CIT. - Weinheim: Wiley-VCH Verl, Bd. 87.2015, 6, S. 762-772;

Idakiev, Vesselin; Mörl, Lothar

Methode zur Untersuchung der Partikelbewegung in diskontinuierlich und kontinuierlich arbeitenden Wirbelschichten

In: Chemie - Ingenieur - Technik: CIT. - Weinheim: Wiley-VCH Verl, Bd. 87.2015, 5, S. 626-637;

[Imp.fact.: 0,661]

Idakiev, Vesselin V.; Marx, Sebastian; Roßau, Antje; Bück, Andreas; Tsotsas, Evangelos; Mörl, Lothar

Inductive heating of fluidized beds - influence on fluidization behavior

In: Powder technology: an international journal on the science and technology of wet and dry particulate systems. - Amsterdam [u.a.]: Elsevier Science, Bd. 286.2015, S. 90-97;

[Imp.fact.: 2,349]

Kaudelka, Sven; Hofmann-Böllinghaus, Anja; Hauswaldt, Sebastian; Krause, Ulrich

Auswirkung von Zündquellen und Systembeschaffenheit auf das Brandverhalten EPS-basierter Wärmedämm-Verbundsysteme

In: Bauphysik: Wärme, Feuchte, Schall, Brand, Licht, Energie, Klima. - Berlin: Ernst, Bd. 37.2015, 4, S. 205-212;

Klippel, Alexander; Schmidt, Martin; Krause, Ulrich

Dustiness in workplace safety and explosion protection - review and outlook

In: Journal of loss prevention in the process industries. - Amsterdam [u.a.]: Elsevier Science, Bd. 34.2015, S. 22-29;

[Imp.fact.: 1,347]

Krietsch, Arne; Scheid, Marc; Schmidt, Martin; Krause, Ulrich

Explosion behaviour of metallic nano powders

In: Journal of loss prevention in the process industries. - Amsterdam [u.a.]: Elsevier Science, 2015; <http://dx.doi.org/10.1016/j.jlp.2015.03.016>;

[Imp.fact.: 1,347]

Kusche, Christian; Knaust, Christian; Hahn, Sarah-Katharina; Krause, Ulrich

Experimental investigations of the combustion efficiency for fire load calculations

In: Materials testing: Materialprüfung; materials and components, technology and application. - München: Hanser, Bd. 57.2015, 10, S. 843-849; 10.3139/120.110795;

Lepik, Petr; Gabel, Dieter; Adamus, Wojciech; Mokos, Ladislav; Mynarz, Miroslav; Serafin, Jiri

Determination of the Minimum Ignition Energy of different devices

In: Sborník vdeckých prací Vysoké Školy Báské - Technické Univerzity Ostrava / ada bezpe nostního inženýrství.
- Ostrava: VŠB - TU, Bd. 10.2015, 1, S. 8-14;

Löhnert, Andrea; Monreal, Nils; Knaust, Christian; Hofmann, Anja; Krause, Ulrich

CFD modeling approach of smoke toxicity and opacity for flaming and non-flaming combustion processes

In: Fire and materials: an international journal. - New York, NY [u.a.]: Wiley, 2015; <http://dx.doi.org/10.1002/fam.2340>;
[Imp.fact.: 1,323]

Meyer, Lennart; Beyer, Michael; Krause, Ulrich

Hot surfaces generated by sliding metal contacts and their effectiveness as an ignition source

In: Journal of loss prevention in the process industries. - Amsterdam [u.a.]: Elsevier Science, 2015; <http://dx.doi.org/10.1016/j.jlp.2015.02.013>;
[Imp.fact.: 1,347]

Richter, Johannes; Zinke, Ronald; Farnell, Damian J. J.

The spin-1/2 square-lattice J1-J2 model I: the spin-gap issue

In: The European physical journal. - Berlin: SpringerThe European physical journal / B, Bd. 88.2015, 2, insges. 6 S.;
[Imp.fact.: 1,463]

Rousochatzakis, Ioannis; Richter, Johannes; Zinke, Ronald; Tsirlin, Alexander A.

Frustration and Dzyaloshinsky-Moriya anisotropy in the kagome francisites $\text{Cu}_3\text{Bi}(\text{SeO}_3)_2\text{O}_2\text{X}$ (X

In: Physical review. - College Park, Md: APSPhysical review / B; Vol. 91.2015, 2, Art. 024416, insgesamt 15 S.;
[Imp.fact.: 3,664]

Tschirschwitz, Rico; Schröder, Volkmar; Brandes, Elisabeth; Krause, Ulrich

Determination of explosion limits - criterion for ignition under non-atmospheric conditions

In: Journal of loss prevention in the process industries. - Amsterdam [u.a.]: Elsevier Science, 2015; <http://dx.doi.org/10.1016/j.jlp.2015.01.012>;
[Imp.fact.: 1,347]

Buchbeiträge

Addai, Emmanuel Kwasi; Gabel, Dieter; Krause, Ulrich

Ignition and explosion behaviour of hybrid mixtures of two and three components

In: 4. Magdeburger Brand- und Explosionsschutztag: am 26. und 27. März 2015. - Magdeburg, insges. 11 S.
Kongress: Magdeburger Brand- und Explosionsschutztag; 4 (Magdeburg): 2015.03.26-27;

Gabel, Dieter; Addai, Emmanuel Kwasi; Krause, Ulrich

Explosionscharakteristiken von aerosolen hybriden Lösemittel/Staub-Gemischen

In: 12. Fachtagung Anlagen-, Arbeits- und Umweltsicherheit: Köthen, 5./6. November 2015; Tagungsunterlagen.
- Köthen: Hochschule Anhalt, insges. 2 S.;

Gabel, Dieter; Schmidt, Michael; Schlüsselburg, Sabine

Simultanthermische Analyse mit gekoppelter FTIR- und MS-Analyse - Verfahren, Möglichkeiten und Grenzen

In: 4. Magdeburger Brand- und Explosionsschutztag: am 26. und 27. März 2015. - Magdeburg, insges. 8 S.
Kongress: Magdeburger Brand- und Explosionsschutztag; 4 (Magdeburg): 2015.03.26-27;

Melcher, Thomas; Thiele, Paul

Brandversuche im Realmaßstab-Statistische Analyse eines Zufallsexperimentes

In: 4. Magdeburger Brand- und Explosionsschutztag: am 26. und 27. März 2015. - Magdeburg
Kongress: Magdeburger Brand- und Explosionsschutztag; 4 (Magdeburg): 2015.03.26-27;

Richter, Elizabeth; Krause, Ulrich

Feststoffgasgeneratoren für die Brandbekämpfung in der zivilen Luftfahrt am Beispiel von Frachträumen

In: 4. Magdeburger Brand- und Explosionsschutztag: am 26. und 27. März 2015. - Magdeburg, insges. 11 S.
Kongress: Magdeburger Brand- und Explosionsschutztag; 4 (Magdeburg): 2015.03.26-27;

Thiele, Paul; Melcher, Thomas

Brandschutzlösungen von Schutzhütten in Extremlage

In: 4. Magdeburger Brand- und Explosionsschutztag: am 26. und 27. März 2015. - Magdeburg, insges. 8 S.
Kongress: Magdeburger Brand- und Explosionsschutztag; 4 (Magdeburg): 2015.03.26-27;

Wissenschaftliche Monografien

Addai, Emmanuel Kwasi

Flame and explosion suppression using pyrobubbles

LAP LAMBERT Acad. Publ., 2015; 68 S., ISBN 978-3-659-76630-5;

Artikel in Kongressbänden

Addai, Kwasi Emmanuel; Gabel, Dieter; Krause, Ulrich

Minimum ignition temperature of hybrid mixtures of burnable dusts and gases

In: Proceedings of the 25th International Colloquium on the Dynamics of Explosions and Reactive Systems: 2-7 August 2015, Leeds, UK. - ICDERS, insges. 6 S.;

Dissertationen

Krietsch, Arne; Krause, Ulrich [Gutachter]

Untersuchung der Brand- und Explosionsgefahren von Nanostäuben. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; X, 124 Bl.: III., graph. Darst.;

Löhnert, Andrea; Krause, Ulrich [Gutachter]; Thévenin, Dominique [Gutachter]

Modellierung von Brandszenarien mit CFD unter Berücksichtigung des Einflusses der Brandrauchzusammensetzung auf die Toxizität und Sichtweiten. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; XII, 158 Bl.: III., graph. Darst.;

Neske, Michael; Krause, Ulrich [Gutachter]

Experimentelle Untersuchungen und theoretische Modellierung zu den Auswirkungen von Wärmeexposition auf Pressluftatmer, Vollmasken und Lungenautomaten. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; Magdeburg; XXIV, 203 S.: III., graph. Darst.; 30 cm;

Tschirschwitz, Rico; Krause, Ulrich [Gutachter]

Entwicklung von Bestimmungsverfahren für Explosionskenngrößen von Gasen und Dämpfen für nichtatmosphärische Bedingungen. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; XII, 168 Bl.: III., graph. Darst.;

Zistl, Christiane; Krause, Ulrich [Gutachter]; Thévenin, Dominique [Gutachter]

File-based post-processing of DNS results for turbulent flames using MATLAB. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; 184 S.: graph. Darst.;

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2. Veröffentlichungen

Begutachtete Zeitschriftenaufsätze

Ali, Asim; Langer, Mirko; Lorenz, Volker; Hrib, Cristian G.; Hilfert, Liane; Edelmann, Frank T.

Synthesis and structure of hexaphenyltrisiloxanediolates of sodium, titanium, and iron

In: Journal of organometallic chemistry. - New York, NY [u.a.]: Elsevier, Bd. 776.2014, S. 163-169, 2015;

[Imp.fact.: 2,302]

Bauer, Carolin; Scheffler, Franziska; Schwidder, Michael

Direct crystallization of silicoaluminophosphates onto the surface of open-celled SiC foam

In: Advanced engineering materials. - Weinheim: Wiley-VCH Verl, Bd. 17.2015, 5, S. 656-662;

[Imp.fact.: 1,508]

DAmico, David J.; McDougal, Michael A.; Amenta, Donna S.; Gilje, John W.; Wang, Sida; Hrib, Cristian G.; Edelmann, Frank T.

Synthesis and supramolecular structures of manganese complexes with N-pyrazolylpropanamide-derived ligands

In: Polyhedron. - Amsterdam [u.a.]: Elsevier Science, Bd. 88.2015, S. 19-28;

[Imp.fact.: 2,047]

Deblitz, Raik; Hrib, Cristian G.; Edelmann, Frank T.

Structures and energetic properties of two new salts comprising the 5,5 -azotetrazolate dianion

In: Crystals: open access journal. - Basel: MDPI, Bd. 5.2015, 3, S. 405-417;

Edelmann, Frank T.

Lanthanides and actinides - annual survey of their organometallic chemistry covering the year 2013

In: Coordination chemistry reviews. - Amsterdam [u.a.]: Elsevier Science, Bd. 261.2015, S. 124-205;

[Imp.fact.: 12,098]

Edelmann, Frank T.; Junk, Peter

Frontiers of organo-f-element chemistry

In: New journal of chemistry. - London: RSC, Bd. 39.2015, 10, S. 7539;

[Imp.fact.: 3,086]

Kühling, Marcel; Wickleder, Claudia; Ferguson, Michael J.; Hrib, Cristian G.; McDonald, Robert; Suta, Markus; Hilfert, Liane; Takats, Josef; Edelmann, Frank T.

Investigation of the bent sandwich-like divalent lanthanide hydro-tris(pyrazolyl)borates $\text{Ln}(\text{Tp} \text{ iPr}_2)_2$ (Ln
In: New journal of chemistry. - London: RSC, 2015; <http://dx.doi.org/10.1039/C5NJ00568J>;
[Imp.fact.: 3,159]

Lammert, Martin; Wharmby, Michael T.; Smolders, Simon; Bueken, Bart; Lieb, Alexandra; Lomachenko, Kirill A.; De Vos, Dirk; Stock, Norbert

Cerium-based metal organic frameworks with UiO-66 architecture - synthesis, properties and redox catalytic activity
In: Chemical communications: ChemComm. - Cambridge: Soc, Bd. 51.2015, 63, S. 12578-12581;
[Imp.fact.: 6,834]

Mainka, Hendrik; Hilfert, Liane; Busse, Sabine; Edelmann, Frank; Haak, Edgar; Herrmann, Axel S.

Characterization of the major reactions during conversion of lignin to carbon fiber
In: Journal of materials research and technology: jmr official publication of the Brazilian Metallurgical, Materials and Mining Association. - Rio de Janeiro: Elsevier, 2015; <http://dx.doi.org/10.1016/j.jmrt.2015.04.005>;

Mainka, Hendrik; Täger, Olaf; Körner, Enrico; Hilfert, Liane; Busse, Sabine; Edelmann, Frank T.; Herrmann, Axel S.

Lignin - an alternative precursor for sustainable and cost-effective automotive carbon fiber
In: Journal of materials research and technology: jmr official publication of the Brazilian Metallurgical, Materials and Mining Association. - Rio de Janeiro: Elsevier, 2015; <http://dx.doi.org/10.1016/j.jmrt.2015.03.004>;

Rausch, Janek; Apostolidis, Christos; Walter, Olaf; Lorenz, Volker; Hrib, Cristian G.; Hilfert, Liane; Kühling, Marcel; Busse, Sabine; Edelmann, Frank T.

One ligand fits all: lanthanide and actinide sandwich complexes comprising the 1,4-bis(trimethylsilyl)cyclooctatetraenyl (=COT) ligand
In: New journal of chemistry. - London: RSC, 2015; <http://dx.doi.org/10.1039/C5NJ00991J>;
[Imp.fact.: 3,159]

Reinsch, Helge; Stassen, Ivo; Bueken, Bart; Lieb, Alexandra; Ameloot, Rob; Vos, Dirk de

First examples of aliphatic zirconium MOFs and the influence of inorganic anions on their crystal structures
In: CrystEngComm. - London: RSC, Bd. 17.2015, 2, S. 331-337;
[Imp.fact.: 3,858]

Schmielau, Andrea; Hrib, Cristian G.; Lorenz, Volker; Hilfert, Liane; Zörner, Florian; Busse, Sabine; Edelmann, Frank T.

Surprising reactivity of the unsymmetrically substituted amidinate anion $[\text{MeC}(\text{NEt})(\text{N tBu})]$
In: Journal of organometallic chemistry. - New York, NY [u.a.]: Elsevier, Bd. 791.2015, S. 252-257;
[Imp.fact.: 2,173]

Sroor, Farid M.; Hrib, Cristian G.; Hilfert, Liane; Busse, Sabine; Edelmann, Frank T.

Synthesis and catalytic activity of homoleptic lanthanide-tris(cyclopropylethynyl)amidinates
In: New journal of chemistry. - London: RSC, 2015; <http://dx.doi.org/10.1039/C5NJ00555H>;
[Imp.fact.: 3,159]

Sroor, Farid M.; Hrib, Cristian G.; Hilfert, Liane; Edelmann, Frank T.

Synthesis and structural characterization of an unusual heterometallic europium(III) amidinate complex
In: Zeitschrift für anorganische und allgemeine Chemie: ZAAC. - Weinheim: Wiley-VCH, 2015; <http://dx.doi.org/10.1002/zaac.201500200>;
[Imp.fact.: 1,160]

Sroor, Farid M.; Hrib, Cristian G.; Hilfert, Liane; Jones, Peter G.; Edelmann, Frank T.

Lanthanide(III)-bis(cyclopropylethynylamidinates) - synthesis, structure, and catalytic activity
In: Journal of organometallic chemistry. - New York, NY [u.a.]: Elsevier, Bd. 785.2015, S. 1-10;
[Imp.fact.: 2,302]

Sroor, F.M.; Hrib, Cristian G.; Hilfert, Liane; Hartenstein, Larissa; Roesky, Peter W.; Edlmann, Frank T.

Synthesis and structural characterization of new bis(alkynylamidinato)lanthanide(III)-amides

In: Journal of organometallic chemistry. - New York, NY [u.a.]: Elsevier, Bd. 799/800.2015, S. 160-165;

[Imp.fact.: 2,173]

Thies, Nora; Haak, Edgar

Ruthenium-catalyzed synthesis of 2,3-cyclo[3]dendralenes and complex polycycles from propargyl alcohols

In: Angewandte Chemie. - Weinheim: Wiley-VCHAngewandte Chemie / International edition, 2015; <http://dx.doi.org/10.1002/anie.201412207>;

[Imp.fact.: 11,336]

[Imp.fact.: 11,336]

Thies, Nora; Haak, Edgar

Rutheniumkatalysierte Synthese von 2,3-cyclo[3]dendralenen und komplexer Polycyclen aus Propargylalkoholen

In: Angewandte Chemie. - Weinheim: Wiley-VCH, 2015; <http://dx.doi.org/10.1002/ange.201412207>;

Wanninger, Simon; Lorenz, Volker; Subhan, Abdus; Edlmann, Frank T.

Metal complexes of curcumin - synthetic strategies, structures and medicinal applications

In: Chemical Society reviews: CSR. - London: Soc, 2015; <http://dx.doi.org/10.1039/C5CS00088B>;

[Imp.fact.: 30,452]

Wrobel, Rafal J.; Becker, Stefan; Weiss, Helmut

Influence of subsurface oxygen in the catalytic CO oxidation on Pd(111)

In: The journal of physical chemistry <Washington, DC> / C. - Washington, DC: Soc, Bd. 119.2015, 10, S. 5386-5394;

[Imp.fact.: 4,835]

Dissertationen

Sroor, Farid Mohamed Ahmed; Edlmann, Frank T. [Gutachter]; Haak, Edgar

Synthesis, structure and catalytic activity of new lanthanide alkynylamidinates. - Magdeburg, Univ., Fak. für Verfahrens- und Systemtechnik, Diss., 2015; IV, 148 S.: graph. Darst.;