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UNIVERSITÄT
MAGDEBURG

VST

FAKULTÄT FÜR VERFAHRENS-
UND SYSTEMTECHNIK

Publikationsbericht 2021

Fakultät für Verfahrens- und Systemtechnik

FAKULTÄT FÜR VERFAHRENS- UND SYSTEMTECHNIK

1. LEITUNG

Prof. Dr.-Ing. habil. Dominique Thévenin (Dekan)

Prof. Dr.-Ing. habil. Evangelos Tsotsas (Prodekan)

Prof. Dr. rer. nat. Franziska Scheffler (Studiendekanin)

2. VERÖFFENTLICHUNGEN

HABILITATIONEN

Berg, Philipp; Janiga, Gábor [AkademischeR BetreuerIn]

Multimodale Modellierung intravaskulärer Hämodynamik am Beispiel zerebraler Aneurysmen
Magdeburg, 2021, xiii, 177 Seiten, Illustrationen, Diagramme, 30 cm

DISSERTATIONEN

Bechtel, Simon; Sundmacher, Kai [AkademischeR BetreuerIn]

Development of a novel, energy efficient process for the gas-phase electrolysis of hydrogen chloride to chlorine
Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (xviii, 239 Blätter, 5,93 MB), Illustrationen;

Carneiro, Thiane; Seidel-Morgenstern, Andreas [AkademischeR BetreuerIn]

Advances in enantioselective resolution applying preferential crystallization and enzymatic racemization
Magdeburg, 2021, xiii, 142 Seiten, Illustrationen, Diagramme, 30 cm

Chi, Cheng; Thévenin, Dominique [AkademischeR BetreuerIn]

Direct numerical simulations of gaseous combustion in complex geometry
Magdeburg, 2021, xix, 220 Seiten, Illustrationen, Diagramme, 30 cm

Erenberg, Marina; Krause, Ulrich [AkademischeR BetreuerIn]; Specht, Eckehard [AkademischeR BetreuerIn]

Analyse des Brandverhaltens von Stoßdämpfern für Behälter zum Transport radioaktiver Stoffe
Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (XIV, 131 Seiten, 182,12 MB), Illustrationen;

Helmerichs, Lena; Tsotsas, Evangelos [AkademischeR BetreuerIn]; Uhlenhut, Frank [AkademischeR BetreuerIn]; Biernacki, Piotr [AkademischeR BetreuerIn]

Flexibler Betrieb von Biogasanlagen zur Abdeckung der Residuallast
Magdeburg, 2021, xxviii, 305 Seiten, Illustrationen, Diagramme, 30 cm

Himmel, Andreas; Sundmacher, Kai [AkademischeR BetreuerIn]; Sager, Sebastian [AkademischeR BetreuerIn]

Optimization-based operation strategy and storage design for coupled processes
Magdeburg, 2021, e-o, 220 Seiten, Illustrationen, Diagramme, 24 cm

Kleineberg, Christin

Bottom-up assembly of a light-driven ATP regeneration module in lipid, polymer and hybrid vesicles
Magdeburg, 2021, xii, 190 Seiten, Illustrationen, Diagramme, 30 cm

Kohrs, Fabian; Reichl, Udo [AkademischeR BetreuerIn]

Metaproteomanalyse methanogener Mikrobiome aus Anreicherungskulturen im Labormaßstab
Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (IX, 123, A-J Seiten, 3,84 MB), Illustrationen;

Laske, Tanja; Sundmacher, Kai [AkademischeR BetreuerIn]; Reichl, Udo [AkademischeR BetreuerIn]

Mathematical models of influenza A virus infection - elucidating the impact of host cell factors and defective interfering particles on virus growth

Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (XVIII, 233 Seiten, 17,07 MB), Illustrationen, Diagramme;

Otrin, Lado; Vidaković-Koch, Tanja [AkademischeR BetreuerIn]

Bottom-up construction of the artificial mitochondrion

Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (viii, 174, IX Seiten, 5,27 MB), Illustrationen;

Pham, Son Thai; Kharaghani, Abdolreza [AkademischeR BetreuerIn]; Tsotsas, Evangelos [AkademischeR BetreuerIn]

DEM-based triangulation pore network model for particle aggregates - drying and capillary forces

Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (x, 185 Seiten, 7,49 MB), Illustrationen;

Rappsilber, Tim; Specht, Eckehard [AkademischeR BetreuerIn]; Krause, Ulrich [AkademischeR BetreuerIn]

Untersuchungen zur Bestimmung der Löschwirkung und -effizienz von Druckluftschäum

Magdeburg, 2021, XXI, 122 Seiten, Illustrationen, Diagramme, 30 cm

Schack, Dominik; Sundmacher, Kai [AkademischeR BetreuerIn]

Optimal process design across process hierarchies for the efficient utilization of renewable energy sources

Magdeburg, 2021, xxiii, 163 Seiten, Illustrationen, Diagramme, 30 cm

Seidenbecher, Jakob; Specht, Eckehard [AkademischeR BetreuerIn]

Analyse der transversalen Partikelbewegung und des Wärmeübergangs in Drehrohren mit Hubschaufeln

Magdeburg, 2021, XVII, 202 Seiten, Illustrationen, Diagramme, 21 cm

Singh, Abhinandan Kumar; Tsotsas, Evangelos [AkademischeR BetreuerIn]

Morphology based stochastic simulation of spray fluidized bed agglomeration

Magdeburg, 2021, 169 Seiten, Illustrationen, Diagramme, 21 cm

Vázquez Ramírez, Daniel; Reichl, Udo [AkademischeR BetreuerIn]

Process intensification for the production of MVA and influenza A virus in high density suspension cultures of AGE1.CR.pIX cells

Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (XIV, 136 Seiten, 7,58 MB), Illustrationen;

1. LEITUNG

Prof. Dr.-Ing. habil. Ulrich Krause (geschäftsführender Leiter)

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

Prof. Dr.-Ing. habil. Heinz Köser

2. VERÖFFENTLICHUNGEN

BEGUTACHTETE ZEITSCHRIFTENAUFsätze

Gabel, Dieter; Geoerg, Paul; Franken, Fabian; Krause, Ulrich

Nex-Hys minimum ignition temperature of hybrid mixtures

Journal of loss prevention in the process industries - Amsterdam [u.a.]: Elsevier Science . - 2021;
[Imp.fact.: 2.795]

Kolstad, Einar Arthur; Frette, Vidar; Krause, Ulrich; Hagen, Bjarne C.

Lip-height effect in diffusive pool fires

Fire safety journal - New York, NY [u.a.]: Elsevier, Bd. 125 (2021), insges. 14 S.;
[Imp.fact.: 2.764]

Krietsch, A.; Reyes Rodriguez, M.; Kirsten, A.; Kadoke, D.; Abbas, Zaheer; Krause, Ulrich

Ignition temperatures and flame velocities of metallic nanomaterials

Journal of loss prevention in the process industries - Amsterdam [u.a.]: Elsevier Science, Bd. 71 (2021);
[Imp.fact.: 2.795]

Spitzer, Stefan H.; Askar, Enis; Benke, Alexander; Janovsky, Bretislav; Krause, Ulrich; Krietsch, Arne

Influence of pre-ignition pressure rise on safety characteristics of dusts and hybrid mixtures

Fuel - New York, NY [u.a.]: Elsevier . - 2021, insges. 6 S.;
[Imp.fact.: 6.609]

Velagala, Subrahmanyeswara; Raval, Priyank; Chowhan, Sai Charan Singh; Esmaeelzade, Ghazaleh; Beyer, Michael; Grosshans, Holger

Simulation of the flow of an explosive atmosphere exposed to a hot surface

Journal of loss prevention in the process industries - Amsterdam [u.a.]: Elsevier Science, Bd. 73 (2021);
[Imp.fact.: 3.66]

Villacorta, Edmundo; Haraldseid, Ingunn; Mikalsen, Ragni Fjellgaard; Hagen, Bjarne Christian; Erland, Sveinung; Kleppe, Gisle; Krause, Ulrich; Frette, Vidar

Onset of smoldering fires in storage silos - susceptibility to design, scenario, and material parameters

Fuel - New York, NY [u.a.]: Elsevier, Volume 284 (2021), article 118964;
[Imp.fact.: 5.578]

Wu, Wenying; Wei, Aizhu; Huang, Weixing; Zhao, Peng; Schmidt, Martin; Krause, Ulrich; Wu, Dejian

Experimental and theoretical study on the inhibition effect of CO₂/N₂ blends on the ignition behavior of carbonaceous dust clouds

Process safety and environmental protection - Amsterdam: Elsevier, Bd. 153 (2021), S. 1-10;
[Imp.fact.: 6.158]

Zhao, Peng; Schmidt, Martin; Krause, Ulrich; Duan, Qiangling; Krietsch, Arne; Wu, Dejian

Experimental study on the minimum explosion concentration of anthracite dust - the roles of O₂ mole fraction, inert gas and CH₄ addition

Journal of loss prevention in the process industries - Amsterdam [u.a.]: Elsevier Science, Bd. 71 (2021);
[Imp.fact.: 2.795]

NICHT BEGUTACHTETE ZEITSCHRIFTENAUFsätze

Wolf, Christian; Marx, Marcus; Gabel, Dieter

Herausforderungen bei der Bestimmung der Mindestzündenergie hybrider Gemische
Technische Sicherheit - Düsseldorf: VDI Fachmedien GmbH & Co. KG, Bd. 11 (2021), 5/6, S. 32-36;

BEGUTACHTETE BUCHBEITRäge

Gabel, Dieter; Geoerg, Paul; Krause, Ulrich

NEX-HYS - Entwicklung normungsfähiger Bestimmungsverfahren für hybride Stoffgemische
67. Jahresfachtagung der Vereinigung zur Förderung des Deutschen Brandschutzes e.V. 2021: Tagungsband
- Köln: VdS Schadenverhütung; Vereinigung zur Förderung des Deutschen Brandschutzes e. V., vfdb -
Tagungsband . - 2021, S. 69-82

Hahn, Sarah K.; Keutel, Karola; Vorwerk, Pascal; Krause, Ulrich

Gasfreisetzen bei Lithium-Ionen-Batterien
67. Jahresfachtagung der Vereinigung zur Förderung des Deutschen Brandschutzes e.V. 2021: Tagungsband
- Köln: VdS Schadenverhütung; Vereinigung zur Förderung des Deutschen Brandschutzes e. V., vfdb -
Tagungsband . - 2021, S. 531-545

Klippel, Andrea; Gnutzmann, Tanja; Kemp, Manuel; Hofmann-Böllinghaus, Anja; Gabel, Dieter

Experimentelle und numerische Untersuchung zur Bestimmung der Rauchgastoxizität beim Abbrand von
Innenraummaterialien in Kraftomnibussen
67. Jahresfachtagung der Vereinigung zur Förderung des Deutschen Brandschutzes e.V. 2021: Tagungsband
- Köln: VdS Schadenverhütung; Vereinigung zur Förderung des Deutschen Brandschutzes e. V., vfdb -
Tagungsband . - 2021, S. 83-98

WISSENSCHAFTLICHE MONOGRAFIEEN

Dehoust, Günter; Gebhardt, Peter; Tebert, Christian; Köser, Heinz

Quecksilberemissionen aus industriellen Quellen Status Quo und Perspektiven. Teil 1: Quecksilber-Entstehungs-
und Verbreitungspfade der Industriebranchen in Deutschland - Abschlußbericht : Forschungskennzahl 3716533022
Dessau-Roßlau: Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit, 2021, 1 Online-Ressource
(PDF-Datei, 513 Seiten) - (Texte; 67/2021);

Dehoust, Günter; Gebhardt, Peter; Tebert, Christian; Köser, Heinz

Quecksilberemissionen aus industriellen Quellen Status Quo und Perspektiven. Teil 2: Quecksilberminderung-
stechniken und Überführung von Quecksilber in Senken - Abschlußbericht : Forschungskennzahl 3716533022
Dessau-Roßlau: Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit, 2021, 1 Online-Ressource
(PDF-Datei, 346 Seiten) - (Texte; 68/2021);

Geoerg, Paul

The influence of individual characteristics on crowd dynamics
Jülich: Forschungszentrum Jülich GmbH, Institute for Advanced Simulation, 2021, 1 Online-Ressource -
(Schriften des Forschungszentrums Jülich\$elAS Series; Band 46);

DISSERTATIONEN

Erenberg, Marina; Krause, Ulrich [AkademischeR BetreuerIn]; Specht, Eckehard [AkademischeR BetreuerIn]

Analyse des Brandverhaltens von Stoßdämpfern für Behälter zum Transport radioaktiver Stoffe
Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (XIV, 131 Seiten, 182,12 MB), Illustrationen;

Rappsilber, Tim; Specht, Eckehard [AkademischeR BetreuerIn]; Krause, Ulrich [AkademischeR BetreuerIn]

Untersuchungen zur Bestimmung der Löschwirkung und -effizienz von Druckluftschaum
Magdeburg, 2021, XXI, 122 Seiten, Illustrationen, Diagramme, 30 cm

1. LEITUNG

Prof. Dr. rer. nat. habil. Dieter Schinzer (Institutsleiter)

Prof. Dr. rer. nat. Franziska Scheffler

Prof. Dr. rer. nat. habil. Helmut Weiß

Prof. Dr. rer. nat. Nora Kulak

Prof. Dr. rer. biol. hum. Heike Walles

2. VERÖFFENTLICHUNGEN

BEGUTACHTETE ZEITSCHRIFTENAUFsätze

Doniz Kettenmann, Sebastian; Nossol, Yvonne; Louka, Febee R.; Legrande, Julia R.; Marine, Elise; Fischer, Roland C.; Mautner, Franz A.; Hergl, Vinja; Kulak, Nora; Massoud, Salah S

Copper(II) complexes with tetradentate piperazine-based ligands - DNA cleavage and cytotoxicity
Inorganics - Basel: MDPI, Bd. 9 (2021), 2, insges. 23 S.;

Haak, Edgar; Hatzfeld, Jana; Skowaisa, Steffen; Jäckel, Elisabeth; Kaufmann, Julia

Triaminocyclopentadienyl ruthenium complexes - new catalysts for cascade conversions of propargyl alcohols
Chemistry - a European journal - Weinheim: Wiley-VCH . - 2021, insges. 12 S. ;
[Imp.fact.: 5.236]

Hasemann, Georg; Betke, Ulf; Krüger, Manja; Walles, Heike; Scheffler, Michael

Refractory metal coated alumina foams as support material for stem cell and fibroblasts cultivation
Materials - Basel: MDPI, Bd. 14 (2021), 11; <http://dx.doi.org/10.3390/ma14112813> 10.25673/36901
[Imp.fact.: 3.057]

Liebing, Phil; Harmgarth, Nicole; Yang, Yi; McDonald, Robert; Engelhardt, Felix; Kühling, Marcel; Edelmann, Frank T.; Takats, Josef

Synthesis and structure of alkaline earth Bis{hydrido-tris(3,5-diisopropyl-pyrazol-1-yl)borate} complexes:
Ae(TpiPr)₂ (Ae = Mg, Ca, Sr, Ba)
Inorganic chemistry - Washington, DC: American Chemical Society, Bd. 60 (2021), 3, S. 1877-1884;
[Imp.fact.: 4.825]

Lüdtke, Carsten; Sobottka, Sebastian; Heinrich, Julian; Liebing, Phil; Wedepohl, Stefanie; Sarkar, Biprajit; Kulak, Nora

Forty years after the discovery of its nucleolytic activity - [Cu(phen)₂]²⁺ shows unattended DNA cleavage activity upon fluorination
Chemistry - a European journal - Weinheim: Wiley-VCH, Bd. 27 (2021), 10, S. 3273-3277;
[Imp.fact.: 5.236]

Wacker, Max; Riedel, Jan; Walles, Heike; Scherner, Maximilian Philipp; Awad, George; Varghese, Sam; Schürlein, Sebastian; Garke, Bernd; Veluswamy, Priya; Wippermann, Jens; Hülsmann, Jörn

Comparative evaluation on impacts of fibronectin, heparin chitosan, and albumin coating of bacterial nanocellulose small-diameter vascular grafts on endothelialization in vitro
Nanomaterials - Basel: MDPI, 2011, Bd. 11 (2021), 8, insges. 24 S. ;
[Imp.fact.: 5.076]

Wiese-Rischke, Cornelia; Murkar, Rasika S.; Walles, Heike

Biological models of the lower human airways - challenges and special requirements of human 3D barrier models for biomedical research
Pharmaceutics - Basel: MDPI, 2009, Bd. 13 (2021), 12, insges. 13 S. ;
[Imp.fact.: 6.321]

Xie, Jing; Haeckel, Akvile; Hauptmann, Ralf; Pryjomska Ray, Iweta; Limberg, Christian; Kulak, Nora; Hamm, Bernd; Schellenberger, Eyk

Iron(III) t CDTA derivatives as MRI contrast agents - increased T 1 relaxivities at higher magnetic field strength and pH sensing

Magnetic resonance in medicine - New York, NY [u.a.]: Wiley-Liss, Bd. 85 (2021), 6, S. 3370-3382; [Imp.fact.: 4.668]

BEGUTACHTETE BUCHBEITRÄGE

Hohlfeld, Benjamin F.; Gitter, Burkhard; Kingsbury, Christopher J.; Flanagan, Keith J.; Steen, Dorika; Wieland, Gerhard D.; Kulak, Nora; Senge, Mathias O.; Wiehe, Arno

Dipyrrinato-Iridium(III) complexes for application in photodynamic therapy and antimicrobial photodynamic inactivation

Chemistry - a European journal - Weinheim: Wiley-VCH, Bd. 27 (2021), 10, S. 3273-3277; [Imp.fact.: 5.236]

LEHRBÜCHER

Vogt, Jochen

Exam Survival Guide: Physikalische Chemie

[Heidelberg]: Springer Spektrum, 2021, XIX, 389 Seiten, Illustrationen, Diagramme, 24 cm - (Lehrbuch)

ABSTRACTS

Schmelzer, Janett; Hasemann, Georg; Regenber, Maximilian; Betke, Ulf; Krüger, Manja; Walles, Heike; Scheffler, Michael

Biocompatibility of pure refractory metals and their combination as high entropy alloys

Intermetallics 2021 - International Conference, 4th till 8th October 2021 : Educational Center Kloster Banz, Germany : programme and abstracts - Jena, Germany: Conventus Congressmanagement & Marketing GmbH, 2021; Krüger, Manja . - 2021, S. 172-173;

Wacker, Max; Riedel, Jan; Scherner, Maximilian Philipp; Awad, George; Wippermann, Jens; Veluswamy, Priya; Walles, Heike; Hülsmann, Jörn

Protein coating of bacterial nanocellulose small diameter vascular grafts leads to improved endothelialization

The thoracic and cardiovascular surgeon - Stuttgart: Thieme, 1953, Bd. 69 (2021), S01, insges. 1 S.; [Imp.fact.: 1.827]

DISSERTATIONEN

Dammler, Kathleen; Scheffler, Michael [AkademischeR BetreuerIn]; Scheffler, Franziska [AkademischeR BetreuerIn]

Keramikschaüme mit hoher Stegporosität

Magdeburg: Universitätsbibliothek, 2021, 1 Online-Ressource (XVIII, 257 Seiten, 111,81 MB), Illustrationen;

1. LEITUNG

Prof. Dr.-Ing. F. Beyrau (geschäftsführender Leiter)

Prof. Dr.-Ing. D. Thévenin

Jun.-Prof. Dr.-Ing. A. Diéguez-Alonso

2. VERÖFFENTLICHUNGEN

BEGUTACHTETE ZEITSCHRIFTENAUFsätze

Abdelsamie, Abouelmagd; Chi, Chi; Nanjaiah, Monika; Skenderović, Ivan; Suleiman, Samer; Thévenin, Dominique

Direct numerical simulation of turbulent spray combustion in the SpraySyn burner - impact of injector geometry
Flow, turbulence and combustion - Dordrecht [u.a.]: Springer Science + Business Media B.V., Bd. 106 (2021),
S. 453-469;

[Imp.fact.: 2.305]

Abdelsamie, Abouelmagd; Lartigue, Ghislain; Frouzakis, Christos E.; Thévenin, Dominique

The Taylor-Green vortex as a benchmark for high-fidelity combustion simulations using low-Mach solvers
Computers & fluids - Amsterdam [u.a.]: Elsevier Science, Bd. 223 (2021);

[Imp.fact.: 3.013]

Altenbach, Holm; Janiga, Gábor; Beiner, Mario; Androsch, Rene; Runge, Paul-Maximilian

Numerical simulation of the fused deposition modeling for the manufacturing of parts with both high geometric fidelity and mechanical quality

Žurnal Sibirskogo Federal nogo Universiteta / Serija Matematika i fizika/ Sibirskij Federal nyj Universitet - Krasnojarsk, Bd. 14 (2021), 6, S. 712-725;

Artús, Luis; Feneberg, Martin; Attacalite, Claudio; Edgar, James H.; Li, Jiahan; Goldhahn, Rüdiger; Cuscó, Ramon

Ellipsometry study of hexagonal boron nitride using synchrotron radiation - transparency Window in the farUVC
Advanced photonics research - Weinheim: Wiley-VCH, Bd. 2 (2021), 5;

Berck, Andrea; Kurz, Marius

A perspective on machine learning methods in turbulence modeling

GAMM-Mitteilungen/ Gesellschaft für Angewandte Mathematik und Mechanik - Weinheim: Wiley-VCH, Bd. 44 (2021), 1, insges. 27 S.;

Berg, Philipp; Behrendt, Benjamin; Voß, Samuel; Beuing, Oliver; Neyazi, Belal; Sandalcioglu, I. Erol; Preim, Bernhard; Saalfeld, Sylvia

VICTORIA - Virtual neck Curve and True Ostium Reconstruction of Intracranial Aneurysms

Cardiovascular engineering and technology - New York, NY: Springer, 2010, Bd. 12 (2021), 4, S. 454-465;

[Imp.fact.: 2.495]

Beyrau, Frank; Bood, Joakim; Hsu, Paul; Kiefer, Johannes; Seeger, Thomas; Stauffer, Hans

Laser applications to chemical, security, and environmental analysis - introduction to the feature issue
Applied optics - Washington, DC: Optical Soc. of America, Bd. 60 (2021), 15, S. LAC1-LAC3;

[Imp.fact.: 1.98]

Beyrau, Frank; Fond, Benoît; Abram, Christopher

A summary of new developments in phosphor thermometry

Measurement science and technology - Bristol: IOP Publ., Bd. 32 (2021), 12, insges. 5 S.;

[Imp.fact.: 2.046]

Cai, Tao; Khodsiani, Mohammadhassan; Hallak, Bassem; Abram, Christopher; Beyrau, Frank; Specht, Eckehard

Phosphor thermometry at the surface of single reacting large-diameter spherical coke particles to characterise combustion for packed bed furnaces

Proceedings of the Combustion Institute/ Combustion Institute - Amsterdam [u.a.]: Elsevier, Bd. 38 (2021), 3, S. 4225-4232;

[Imp.fact.: 3.757]

Chi, Cheng; Abdelsamie, Abouelmagd; Thévenin, Dominique

Transient ignition of premixed methane/air mixtures by a pre-chamber hot jet - a DNS study

Flow, turbulence and combustion - Dordrecht [u.a.]: Springer Science + Business Media B.V. . - 2021, insges. 21 S.;

[Imp.fact.: 2.305]

Chia, Cheng; Janiga, Gábor; Thévenin, Dominique

On-the-fly artificial neural network for chemical kinetics in direct numerical simulations of premixed combustion

Combustion and flame - Amsterdam [u.a.]: Elsevier Science, Bd. 226 (2021), S. 467-477;

[Imp.fact.: 4.57]

Cleynen, Olivier; Engel, Sebastian; Hoerner, Stefan; Thévenin, Dominique

Optimal design for the free-stream water wheel - a two-dimensional study

Energy - Amsterdam [u.a.]: Elsevier Science, Volume 214 (2020), article 118880, 2021;

[Imp.fact.: 6.082]

Gaidzik, Franziska; Pathiraja, Sahani; Saalfeld, Sylvia; Stucht, Daniel; Speck, Oliver; Thévenin, Dominique; Janiga, Gábor

Hemodynamic data assimilation in a subject-specific circle of Willis geometry

Clinical neuroradiology - München: Urban & Vogel, 2006, Bd. 31 (2021), 3, S. 643-651;

[Imp.fact.: 3.649]

Gaidzik, Franziska; Pravdivtseva, Mariya; Larsen, Naomi; Jansen, Olav; Hövener, Jan-Bernd; Berg, Philipp

Luminal enhancement in intracranial aneurysms: fact or feature? - a quantitative multimodal flow analysis

International journal of computer assisted radiology and surgery - Berlin: Springer, Bd. 16 (2021), 11, S. 1999-2008;

[Imp.fact.: 2.924]

Gänsch, Jonathan; Huskova, N.; Kerst, Kristin; Temmel, E.; Mangold, M.; Janiga, Gábor; Seidel-Morgenstern, Andreas

Continuous enantioselective crystallization of chiral compounds in coupled fluidized beds

The chemical engineering journal - Amsterdam: Elsevier, Bd. 422 (2021);

[Imp.fact.: 13.273]

Hagemeier, Thomas; Thévenin, Dominique; Richter, Thomas

Settling of spherical particles in the transitional regime

International journal of multiphase flow - Oxford: Pergamon Press, Bd. 138 (2021);

[Imp.fact.: 3.186]

Hallak, Bassem; Specht, Eckehard

Influence of particle size distribution on lime quality and energy consumption in PFR shaft kilns

Cement international: processing, performance, application - Erkrath: Verl. Bau + Technik, Bd. 19 (2021), 3, S. 18-27

Hoerner, Stefan; Abbaszadeh, Shokoofeh; Cleynen, Olivier; Bonamy, Cyrille; Maître, Thierry; Thévenin, Dominique

Passive flow control mechanisms with bioinspired flexible blades in cross-flow tidal turbines

Experiments in fluids - Berlin: Springer, Bd. 62 (2021), insges. 14 S.;

[Imp.fact.: 2.48]

Hoerner, Stefan; Kösters, Iring; Vignal, Laure; Cleynen, Olivier; Abbaszadeh, Shokoofeh; Maître, Thierry; Thévenin, Dominique

Cross-flow tidal turbines with highly flexible blades - experimental flow field investigations at strong fluid-structure interactions

Energies - Basel: MDPI, Volume 14(2021), issue 4, article 797, 17 Seiten; <http://dx.doi.org/10.3390/en14040797>
10.25673/37301

Hosseini, Seyed Ali; Berg, Philipp; Huang, Feng; Roloff, Christoph; Janiga, Gábor; Thévenin, Dominique

Central moments multiple relaxation time LBM for hemodynamic simulations in intracranial aneurysms - an in-vitro validation study using PIV and PC-MRI

Computers in biology and medicine - Amsterdam [u.a.]: Elsevier Science, Bd. 131 (2021);
[Imp.fact.: 4.589]

Hosseini, Seyed Ali; Safari, Hesameddin; Thévenin, Dominique

Lattice Boltzmann solver for multiphase flows - application to high Weber and Reynolds numbers

Entropy - Basel: MDPI, Bd. 23 (2021), 2; <http://dx.doi.org/10.3390/e23020166> 10.25673/37922
[Imp.fact.: 2.524]

Klink, Fabian; Boese, Axel; Voß, Samuel; Beyer, Christiane

Design and implementation of a medical device test stand for micro-catheters and guide-wires

Current directions in biomedical engineering - Berlin: De Gruyter, 2015, Bd. 7 (2021), 2, S. 339-342;

Köplin, Jessica; Bednarz, Lena; Hagemeyer, Thomas; Thévenin, Dominique

Fluorescence imaging methodology for oil-in-water concentration measurements

Chemical engineering & technology - Weinheim: Wiley-VCH Verl.-Ges., Bd. 44 (2021), 7, S. 1343-1349;
[Imp.fact.: 1.728]

Mansour, Michael; Kasetti, Saiteja; Thévenin, Dominique; Nigam, Krishna D. P.; Zähringer, Katharina

Numerical study of the separation of two immiscible liquids in helical and straight pipes

Chemical engineering and processing - Amsterdam [u.a.]: Elsevier . - 2021;
[Imp.fact.: 4.237]

Martins, Fabio J. W. A.; Kirchmann, Jonas; Kronenburg, Andreas; Beyrau, Frank

Quantification and mitigation of PIV bias errors caused by intermittent particle seeding and particle lag by means of large eddy simulations

Measurement science and technology - Bristol: IOP Publ., Bd. 32 (2021), 10, insges. 19 S.;
[Imp.fact.: 2.046]

Martins, Fabio J. W. A.; Kronenburg, Andreas; Beyrau, Frank

Single-shot two-dimensional multi-angle light scattering (2D-MALS) technique for nanoparticle aggregate sizing

Applied physics / B - Berlin: Springer, Bd. 127 (2021), insges. 15 S.;
[Imp.fact.: 2.07]

Maziarka, Przemyslaw; Arauzo Gimeno, Pablo José

Do you BET on routine? - The reliability of N₂ physisorption for the quantitative assessment of biochars surface area

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1. LEITUNG

Prof. Dr.-Ing. habil. Andreas Seidel-Morgenstern
Prof. Dr.-Ing. Udo Reichl
Prof. Dr.-Ing. habil. Martin Sommerfeld
Prof. Dr.-Ing. habil. Kai Sundmacher
Prof. Dr.-Ing. habil. Evangelos Tsotsas
Prof. Dr. Ir. Berend van Wachem (geschäftsführender Leiter)

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