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UNIVERSITÄT
MAGDEBURG

VST

FAKULTÄT FÜR VERFAHRENS-
UND SYSTEMTECHNIK

Publikationsbericht 2025

Fakultät für Verfahrens- und Systemtechnik

FAKULTÄT FÜR VERFAHRENS- UND SYSTEMTECHNIK

1. LEITUNG

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

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

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

2. VERÖFFENTLICHUNGEN

BEGUTACHTETE BUCHBEITRÄGE

Walter, Jan Paul; Hoffmann, Carina; Wolff, Tanya; Hamel, Christof

"Influence of coke on intraparticle mass and heat transfer during coking and regeneration phases of the thermal propane dehydrogenation - view inside a single catalyst particle"

The chemical engineering journal - Amsterdam : Elsevier, Bd. 523 (2025), Artikel 168215, insges. 17 S., 1 Online-Ressource (17 Seiten)

HABILITATIONEN

Zähringer, Katharina; Beyrau, Frank [AkademischeR BetreuerIn]

Laser induced fluorescence as a tool for the analysis of structures and scalars in fluid mechanics

Magdeburg: Universitätsbibliothek, Habilitationsschrift Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahren- und Systemtechnik 2025, 1 Online-Ressource (X, 328 Seiten, 106,75 MB) ;

[Literaturangaben]

DISSERTATIONEN

Abbas, Zaheer; Krause, Ulrich [AkademischeR BetreuerIn]; Krietsch, Arne [AkademischeR BetreuerIn]

Quasi-static dispersion of dusts for the measurement of safety characteristics of hybrid mixtures

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahren- und Systemtechnik 2025, 1 Online-Ressource (xi, 142 Seiten, 16,94 MB) ;

[Literaturverzeichnis: Seite 87-93]

Belov, Feodor; Langermann und Erlencamp, von Jan [AkademischeR BetreuerIn]

Investigation of integrated crystallization methods for the biocatalytic preparation of pharmaceutically relevant compounds and fine chemicals

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahren- und Systemtechnik 2025, 1 Online-Ressource (xiii, 124 Seiten, 21,97 MB) ;

[Literaturangaben]

Böhm, Kevin; Stein, Matthias [AkademischeR BetreuerIn]

Design, Synthese und Charakterisierung von Inhibitoren für die Deubiquitinasen STAMBPL1 und USP48

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahren- und Systemtechnik 2025, 1 Online-Ressource (VII, 148, xi Seiten, 8,79 MB) ;

[Literaturverzeichnis: Seite 144-148]

Cajic, Samanta; Langermann und Erlencamp, von Jan [AkademischeR BetreuerIn]; Reichl, Udo [AkademischeR BetreuerIn]

In-Depth N-Glycan analysis using a synergy of glycomics technologies: method development and biomedical applications

Barleben: docupoint Verlag, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahren- und Systemtechnik 2025, XXIII, 197 Seiten, ISBN: 978-3-86912-223-6 ;

[Literaturverzeichnis: Seite 123-144]

Correia Ramos, João Rodrigues; Reichl, Udo [AkademischeR BetreuerIn]

Modeling the dynamics of cell growth, central carbon metabolism and virus production in animal cells

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (XL, 181 Seiten, 8,19 MB) ;
[Literaturangaben]

Dogra, Tanya; Reichl, Udo [AkademischeR BetreuerIn]

Genetically engineered defective interfering particles of influenza A virus for antiviral treatment and vaccination

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (165 Blätter, 6,84 MB) ;
[Literaturverzeichnis: Blatt 140-149]

Finke, Jannis; Sewerin, Fabian [AkademischeR BetreuerIn]; Janiga, Gábor [AkademischeR BetreuerIn]

Aluminum powder as recyclable energy carrier - population balance modelling of oxide smoke formation

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (XLIII, 222 Seiten, 10,05 MB) ;
[Literaturverzeichnis: Seite 179-197]

Heilmann, Vanessa; Krause, Ulrich [AkademischeR BetreuerIn]; Beyer, Michael [AkademischeR BetreuerIn]; Engelmann, Frank [AkademischeR BetreuerIn]

Entwicklung eines Verfahrens zur Bestimmung von sicherheitstechnischen Kenngrößen von hybriden Dampf-Staub-Luft-Gemischen

Braunschweig: Physikalisch-Technische Bundesanstalt, Presse und Öffentlichkeitsarbeit, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (89.4.0 MB; xvii, 160 Seiten) - (PTB-Bericht; Diss; 21), ISBN: 978-3-944659-53-4 ;
[Literaturverzeichnis: Seite 125-134]

Lehr, Annemarie; Thévenin, Dominique [AkademischeR BetreuerIn]

Experimental and numerical investigations of a continuous counter-current solid-liquid extraction process focusing on hydrodynamic phenomena

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (XII, II, 174 Seiten, 10,67 MB) ;
[Literaturverzeichnis: Seite 156-168]

Lugner, Robert

Vorausschauende Crasherkenennung und Crashparameterprädiktion mittels Unvermeidbarkeitsmodell für die Aktivierung irreversibler Schutzsysteme in Fahrzeugen vor dem Kollisionszeitpunkt

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Elektrotechnik und Informationstechnik 2025, 1 Online-Ressource (IV, 173 Seiten, 39,12 MB) ;
[Literaturverzeichnis: Seite 130-153]

Maggi, Andrea; Janiga, Gábor [AkademischeR BetreuerIn]; Sundmacher, Kai [AkademischeR BetreuerIn]; Kienle, Achim [AkademischeR BetreuerIn]

Computer-aided optimization of resource-efficient and flexible power-to-syngas processes

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (XI, 208 Blätter, 12,95 MB) ;
[Literaturverzeichnis: Blatt 186-200]

Mehdi, Bilal; Specht, Eckehard [AkademischeR BetreuerIn]

Heat transfer analysis in quenching of stationary and moved hot metal plates using different arrays of spray nozzles

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (XX, 185 Seiten, 12,9 MB) ;
[Literaturverzeichnis: Seite 165-168]

Murkar, Rasika; Walles, Heike [AkademischeR BetreuerIn]

Entwicklung von in vitro Modellen der oberen und unteren Atemwege zum Studium der Aerosolentstehung und der Virusverpackung

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (v, iii, 148 Blätter, 181,34 MB) ;

[Literaturverzeichnis: Blatt 129-142]

Scharff, Erik; Krause, Ulrich [AkademischeR BetreuerIn]

Untersuchungen zur Ausbreitung brennbarer Schwergase in längsdurchströmten Straßentunneln

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[Literaturverzeichnis: Blatt 141-148][Literaturverzeichnis: Blatt 141-148]

Stelter, Moritz; Beyrau, Frank [AkademischeR BetreuerIn]

Three-dimensional thermometry and velocimetry in fluid flows using thermographic phosphor tracer particles

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[Literaturverzeichnis: Seite 187-217]

Sudhoff, Patrick Marcel; Krause, Ulrich [AkademischeR BetreuerIn]

Numerische Modellierung des Schmelzverhaltens von Dämmstoffen aus nachwachsenden Rohstoffen

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (XIV, 135 Blätter, Blatt XIV-XXXVI, 46,17 MB) ;

[Literaturverzeichnis: Blatt XIV-XXVI]

Wang, Zihao; Sundmacher, Kai [AkademischeR BetreuerIn]

Data-driven computer-aided molecular, material, and process design for efficient separation systems

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (VII, 123 Blätter, 7,85 MB) ;

[Literaturverzeichnis: Blatt 99-114]

Wu, Wencong; Tsotsas, Evangelos [AkademischeR BetreuerIn]; Bück, Andreas [AkademischeR BetreuerIn]

Prediction of particle mixing in rotary drums by DEM data-driven models

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (xi, 164 Blätter, 52,84 MB) ;

[Literaturverzeichnis: Blatt 151-160]

Yuan, Jialing; Schinzer, Dieter [AkademischeR BetreuerIn]; Haak, Edgar [AkademischeR BetreuerIn]

A new epothilone-analogue with high biological activity on MDR cell lines and the ability to pass the blood-brain-barrier

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (119 Blätter, 4,3 MB) ;

[Literaturverzeichnis: Blatt 115-119]

Zhou, Yageng; Sundmacher, Kai [AkademischeR BetreuerIn]

Computer-aided material and process design for ethylene purification from C2 hydrocarbons

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (XIII, 116 Seiten, 6,52 MB) ;

[Literaturverzeichnis: Seite 96-108]

Zúñiga Bañuelos, Frania Jaqueline; Reichl, Udo [AkademischeR BetreuerIn]

In-depth N-glycoproteomic analysis of human blood plasma proteins

Magdeburg: Universitätsbibliothek, Dissertation Otto-von-Guericke-Universität Magdeburg, Fakultät für Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (XIX, 172 Seiten, 12,67 MB) ;

[Literaturverzeichnis: Seite 111-126]

1. LEITUNG

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

2. VERÖFFENTLICHUNGEN

BEGUTACHTETE ZEITSCHRIFTENAUFsätze

Amano, Kofi Owusu Ansah; Gimadieva, Elena; Krause, Ulrich

Comparing the thermal runaway characteristics in sodium-ion batteries and Li-ion batteries with layered oxide cathode materials - influence of state of charge level

Journal of power sources - New York, NY [u.a.]: Elsevier, Bd. 648 (2025), Artikel 237414, insges. 15 S.

[Imp.fact.: 7.9]

Amano, Kofi Owusu Ansah; Tschirschwitz, Rico; Gimadieva, Elena; Köhler, Florian; Krause, Ulrich

Thermal runaway and explosibility of the gas release from 18650 sodium-ion cells of NFM chemistry

Journal of energy storage - Amsterdam [u.a.]: Elsevier, Bd. 122 (2025), insges. 16 S.

[Imp.fact.: 8.9]

Hahn, Sarah-Katharina; Gnutzmann, Tanja; Meinert, Marion; Hofmann-Böllinghaus, Anja; Oberhagemann, Dirk; Krause, Ulrich

Incipient fires - definition, detection and extinguishment by laypersons

Fire and materials - New York, NY [u.a.]: Wiley . - 2025, insges. 8 S. ;

[Online first]

[Imp.fact.: 2.4]

Heydick, Lukas; Piechnik, Kira; Klippel, Andrea

Comprehensive experimental studies on smoldering characteristics of forest soil from pinus sylvestris vegetation

Fire and materials - New York, NY [u.a.]: Wiley, Bd. 49 (2025), Heft 5, S. 670-685

[Imp.fact.: 2.0]

Jankuj, Wojtech; Skrinsky, Jan; Krietsch, Arne; Schmidt, Martin; Krause, Ulrich; Kuracina, Richard; Szabová, Zuzana; Spitzer, Stefan H.

Simplifying standards, opening restrictions, Part I: The influence of the test vessel volume on the maximum explosion pressure of dusts

Journal of loss prevention in the process industries - Amsterdam [u.a.]: Elsevier Science, Bd. 94 (2025), Artikel 105556, insges. 7 S.

[Imp.fact.: 3.6]

Kolstad, Einar A.; Hagen, Bjarne Chr.; Christensen, Kim; Krause, Ulrich; Frette, Vidar

Limiting lip-height of pool fires

Fire safety journal - New York, NY [u.a.]: Elsevier, Bd. 154 (2025), insges. 14 S.

[Imp.fact.: 3.4]

Sudhoff, Patrick; Krause, Ulrich

A numerical model for predicting the smoldering behavior of bio-based insulation materials - model theory and validation

Fire safety journal - New York, NY [u.a.]: Elsevier, Bd. 152 (2025), Artikel 104351, insges. 21 S.

[Imp.fact.: 3.4]

Vorwerk, Pascal; Wahba, Ismail; Spiliopoulou, Myra

Enhancing early indoor fire detection using indicative patterns in multivariate time series data based on multi-sensor nodes

Journal of building engineering - Amsterdam [u.a.]: Elsevier, Bd. 111 (2025), Artikel 113417, insges. 16 S.

[Imp.fact.: 7.4]

Zhao, Peng; Wu, Dejian; Krietsch, Arne; Gabel, Dieter; Krause, Ulrich

Experimental study on ignition and flame propagation of hydrogen/carbon black hybrid mixtures in a vertical tube

Journal of loss prevention in the process industries - Amsterdam [u.a.]: Elsevier Science, Bd. 96 (2025), S. 13, Artikel 105633

[Imp.fact.: 3.6]

BEGUTACHTETE BUCHBEITRÄGE

Heydick, Lukas; Piechnik, Kira; Vorwerk, Pascal; Köhler, Florian; Klippel, Andrea

Unterschätzte Gefahr Bodenbrände - Ergebnisse aus Waldbrandstudien zur Entzündung und horizontalen Brandausbreitung in Kiefernwaldböden

71. Jahresfachtagung der Vereinigung zur Förderung des Deutschen Brandschutzes e. V. 2025 in Koblenz - Köln : VdS Schadenverhütung, S. 535-549 ;

[Tagung: 71. Jahresfachtagung der vfdb, Koblenz, 26. - 28. Mai 2025]

NICHT BEGUTACHTETE BUCHBEITRÄGE

Hofmann-Böllinghaus, Anja; Klippel, Andrea; Piechnik, Kira

Vehicle fires - significant fire hazard in transportation infrastructure

Interflam 2025 ; Volume 1 - [Gosport, Hampshire, UK]: Interscience Communications Ltd., S. 1291-1298 ;

[Konferenz: 16th International Fire Science & Engineering Conference, Interflam 2025, 30th June - 2nd July 2025]

Klippel, Andrea; Hofmann-Böllinghaus, Anja; Heydick, Lukas; Piechnik, Kira; Wu, Hongyi; Köhler, Florian; Klaffke, Benjamin

Experimental analysis of fire behaviour in pine forests and agricultural fields - large-scale tests conducted within the TREEADS project

Interflam 2025 ; Volume 1 - [Gosport, Hampshire, UK]: Interscience Communications Ltd., S. 1435-1444 ;

[Konferenz: 16th International Fire Science & Engineering Conference, Interflam 2025, 30th June - 2nd July 2025]

Klippel, Andrea; Lindner, Claudio; Nowak, Matthias; Köhler, Florian

Influence of wind on building fires and its consideration in fire modeling - a CFD case study of an atrium

Interflam 2025 ; Volume 2 - [Gosport, Hampshire, UK]: Interscience Communications Ltd., S. 1699-1711 ;

[Konferenz: 16th International Fire Science & Engineering Conference, Interflam 2025, London, 30th June - 2nd July 2025]

Klippel, Andrea; Piechnik, Kira; Weisbecker, Maximilian; Köhler, Florian; Nanduri, Chandra

Design of an apparatus for ember generation - analysis of ember-induced Ignitability of vegetation samples

Interflam 2025 ; Volume 2 - [Gosport, Hampshire, UK]: Interscience Communications Ltd., S. 2226-2233 ;

[Konferenz: 16th International Fire Science & Engineering Conference, Interflam 2025, London, 30th June - 2nd July 2025]

Piechnik, Kira; Hofmann-Böllinghaus, Anja; Klippel, Andrea

Characterization and assessment of smoke emissions from smouldering forest fires - a combined experimental and numerical approach

Interflam 2025 ; Volume 1 - [Gosport, Hampshire, UK]: Interscience Communications Ltd., S. 288-294 ;

[Konferenz: 16th International Fire Science & Engineering Conference, Interflam 2025, 30th June - 2nd July 2025]

1. LEITUNG

Prof. Dr. rer. nat. Jan von Langermann (Institutsleitung)

Prof. Dr. rer. nat. Hana Bunzen

Prof. Dr. rer. nat. Julian Thiele

Prof. Dr. rer. nat. Franziska Scheffler

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

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

2. VERÖFFENTLICHUNGEN

BEGUTACHTETE ZEITSCHRIFTENAUFsätze

Belov, Feodor; Bork, Hannah; Hänel, Luise; Kollipara, Manideep V.; Höhne, Matthias; Gröger, Harald; Langermann, von Jan

Chemoenzymatic route toward a de novo enantioselective total synthesis of (S)-baclofen based on metal-catalyzed hydroformylation and enzymatic transamination

ChemBioChem - Weinheim : Wiley-VCH, Bd. 26 (2025), Heft 15, Artikel e202500108, insges. 7 S.

[Imp.fact.: 5.2]

Belov, Feodor; Lieb, Alexandra; Langermann, von Jan

Crystallization-integrated mandelate racemase-catalyzed dynamic kinetic resolution of racemic mandelic acid

Reaction chemistry & engineering - Cambridge : Royal Society of Chemistry, Bd. 10 (2025), Heft 5, S. 1145-1153

[Imp.fact.: 3.1]

Fotsop, Cyrille Ghislain; Lieb, Alexandra; Scheffler, Franziska

Core-satellite material based metal-doped zeolite LTA for highly efficient iodine sequestration - adsorption performance and mechanism

Inorganic chemistry communications - Amsterdam [u.a.]: Elsevier Science, Bd. 183 (2026), Artikel 115742, insges. 15 S.

[Imp.fact.: 5.4]

Fotsop, Cyrille Ghislain; Lieb, Alexandra; Scheffler, Franziska

Core-shell material based on ion-exchange-assisted growth of ZIFs on chamfered-edged zeolite crystals for N₂/CO adsorption - modeling and mechanism

Journal of environmental chemical engineering - Amsterdam [u.a.]: Elsevier, Bd. 13 (2025), Heft 6, Artikel 119887, insges. 15 S.

[Imp.fact.: 7.2]

Fotsop, Cyrille Ghislain; Lieb, Alexandra; Scheffler, Franziska

Insights into the synergistic effects of ZnO/MgO and Zn/Mg-modified porous zeolite as core-satellite materials for tuning water vapor sorption properties

Applied surface science advances - Amsterdam : Elsevier, Bd. 30 (2025), Artikel 100855, insges. 16 S.

[Imp.fact.: 8.7]

Fotsop, Cyrille Ghislain; Lieb, Alexandra; Scheffler, Franziska

Investigating the impact of heating rates on hydrothermal conversion of heat-treated kaolin into Linde-type LTA zeolite for water vapor sorption

Materials advances - Cambridge : Royal Society of Chemistry, Bd. 6 (2025), Heft 21, S. 8078-8091

[Imp.fact.: 4.7]

Fotsop, Cyrille; Lieb, Alexandra; Scheffler, Franziska

Elucidation of the thermo-kinetics of the thermal decomposition of cameroonian kaolin - mechanism, thermodynamic study and identification of its by-products
RSC Advances / Royal Society of Chemistry - London : RSC Publishing, Bd. 15 (2025), Heft 39, S. 32172-32187
[Imp.fact.: 4.6]

Geisler, Martin; Khan, J; Heine, Thomas; Ansorge-Schumacher, Marion B; Thiele, Julian; Kaufmann, Anika

Analysis of high-molecular weight polyethylene glycol degradation by *Pseudomonas* sp.
Polymer degradation and stability - Amsterdam [u.a.]: Elsevier Science, Bd. 232 (2025), Artikel 111144, insges. 8 S.
[Imp.fact.: 7.4]

Heckel, Charlotte von; Walles, Heike; Hasemann, Georg; Krüger, Manja

Modular Ti-6Al-4V system for in vitro optimization of implant materials
Frontiers in Bioengineering and Biotechnology - Lausanne : Frontiers Media, Bd. 13 (2025), Artikel 1661278, insges. 10 S.
[Imp.fact.: 4.9]

Heinks, Tobias; Hofmann, Katrin; Last, Simon; Gamm, Igor; Blach, Luise; Wei, Ren; Bornscheuer, Uwe Theo; Hamel, Christof; Langermann, von Jan

Selective modification of the product profile of biocatalytic hydrolyzed PET via product-specific medium engineering
ChemSusChem - Weinheim : Wiley-VCH, Bd. 18 (2025), Heft 6, Artikel e202401759, insges. 10 S.
[Imp.fact.: 6.6]

Heinks, Tobias; Hofmann, Katrin; Zimmermann, Lennard; Gamm, Igor; Lieb, Alexandra; Blach, Luise; Ren, Wei; Bornscheuer, Uwe T.; Thiele, Julian; Hamel, Christof; Langermann, von Jan

Analysis of the product-spectrum during the biocatalytic hydrolysis of PEF (poly(ethylene furanoate)) with various esterases
RSC sustainability - [Cambridge]: Royal Society of Chemistry, Bd. 3 (2025), Heft 3, S. 1346-1355
[Imp.fact.: 4.9]

Herbster, Maria; Garke, Bernd; Harnisch, Karsten; Michael, Oliver; Lieb, Alexandra; Betke, Ulf; Könnecke, Mandy; Heyn, Andreas; Kriegel, Paulina; Thärichen, Henrike; Bertrand, Jessica; Krüger, Manja; Halle, Thorsten

Effects of Cr addition on Ti implant alloys (Ti-Cr/Ti-Al-V-Cr) to enhance corrosion and wear resistance
Journal of the mechanical behavior of biomedical materials - Amsterdam [u.a.]: Elsevier, Bd. 164 (2025), Artikel 106899, insges. 23 S.
[Imp.fact.: 3.5]

Herzprung, Peter; Sobolev, Aleksandr; Tümping, von Wolf; Kamjunke, Norbert; Schwidder, Michael; Lechtenfeld, Oliver J.

Temporal dynamics and intermediate product formation in DOM phototransformation revealed by liquid chromatography ultrahigh-resolution mass spectrometry
Environmental science & technology - Columbus, Ohio : American Chemical Society, Bd. 59 (2025), Heft 27, S. 13787-13797

Kahlert, Stefan; Nossol, Constanze; Krüger, Marcus; Kopp, Sascha; Grimm, Daniela; Wuest, Simon L.; Rothkötter, Hermann-Josef

Dynamic mechanical load as a trigger for growth and proliferation in porcine epithelial cells
Biomolecules - Basel : MDPI, Bd. 15 (2025), Heft 3, Artikel 455, insges. 21 S.
[Imp.fact.: 4.8]

Kaufmann, Anika; Ivanova, Kateryna; Thiele, Julian

Regulating protein immobilization during cell-free protein synthesis in hyaluronan microgels
Advanced biology - Weinheim : Wiley-VCH, Bd. 9 (2025), Heft 5, Artikel 2400668, insges. 10 S.
[Imp.fact.: 2.6]

Last, Simon; Heinks, Tobias; Dietz, Niklas; Koopmeiners, Simon; Fischer von Mollard, Gabriele; Weissenborn, Martin J.; Langermann und Erlencamp, von Jan

Constant enzymatic in situ production of H₂O₂ for an Unspecific Peroxygenase by an L-amino acid oxidase
Advanced synthesis & catalysis - Weinheim : Wiley-VCH, Bd. 367 (2025), Heft 11, S. 1-8, Artikel e202500105
[Imp.fact.: 4.0]

Lorenz, Volker; Köhler, Phil; Schröder, Lea; Hilfert, Liane; Goldhahn, Rüdiger; Edelmann, Frank T.

Synthesis and structural investigation of brightly colored organoammonium 1,3-dimethylviolurates
Zeitschrift für Naturforschung. B, a journal of chemical sciences - Berlin : De Gruyter, Bd. 80 (2025), Heft 9-10, S. 357-366

Marchal, Shannon; Dittrich, Anna; Becker, Nadine; Vogel, Katrin; Fickenscher, Lisette; Sánchez, José Luis Cortés; Kahlert, Stefan; Murkar, Rasika; Grimm, Daniela; Krüger, Marcus

Temporary effects of random positioning on the function and plasticity of proliferating monocytes
Scientific reports - [London]: Springer Nature, Bd. 15 (2025), Artikel 39360, insges. 17 S.
[Imp.fact.: 3.9]

Murkar, Rasika; Wiese-Rischke, Cornelia; Weigel, Tobias Maximilian; Kopp, Sascha; Walles, Heike

Developing human upper, lower, and deep lung airway models - Combining different scaffolds and developing complex co-cultures
Journal of tissue engineering - London : Sage, Bd. 16 (2025), insges. 22 S.
[Imp.fact.: 7.0]

Spang, Jonas; Bork, Hannah; Belov, Feodor; Langermann, von Jan; Vorholt, Andreas J.; Gröger, Harald

One-pot hydroaminomethylation of an alkene under formation of primary amines by combining hydroformylation at elevated syngas pressure and biocatalytic transamination in water
Organic & biomolecular chemistry - Cambridge : Royal Society of Chemistry, Bd. 23 (2025), Heft 3, S. 688-692
[Imp.fact.: 2.7]

Spoddig, Vincent J.; Murkar, Rasika; Kopp, Sascha; Walles, Heike

Biomimetic hydrogel scaffolds for stimulating fibrotic responses - development of an in-vitro assay for implant material testing
Frontiers in Bioengineering and Biotechnology - Lausanne : Frontiers Media, Bd. 13 (2025), Artikel 1628630, insges. 19 S.
[Imp.fact.: 4.8]

Tiedemann, Sven; Stang, Annabel; Last, Simon; Gefflaut, Thierry; Langermann, von Jan

Preparative coupled enzymatic synthesis of L-homophenylalanine and 2-hydroxy-5-oxoproline with direct in situ product crystallization and cyclization
ACS omega - Washington, DC : ACS Publications, Bd. 10 (2025), Heft 14, S. 14382-14389
[Imp.fact.: 4.3]

Vigogne, Michelle; Aeschbach, Cosima; Bernhardt, Ricardo; Kaufmann, Anika; Thiele, Julian

Step test for rapid screening of material and process parameters for resin development in DLP 3D printing
Angewandte Chemie. International edition - Weinheim : Wiley-VCH, Bd. 64 (2025), Heft 33, Artikel e202504154, insges. 9 S.
[Imp.fact.: 17.0]

Vigogne, Michelle; Kaufmann, Anika; Grigoryev, Evgeny; Aeschbach, Cosima; Lila, Henri; Schwidder, Michael; Thiele, Julian

Expanding the usage of lignin in DLP 3D printing by optimized synthesis and processing parameters
ACS applied polymer materials - Washington, DC : ACS Publications, Bd. 7 (2025), Heft 22, S. 15255-15267
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ABSTRACTS

Alnazer, Kahled; Prier, Marcus; Walles, Heike; Pech, Maciej; Großer, Oliver Stephan; Kopp, Sascha; Gylstorff, Severin

Development of tissue-mimicking low cost phantoms for tabletop MRI validation
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1. LEITUNG

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

Prof. Dr.-Ing. D. Thévenin

Prof. Dr.-Ing. Dr. rer. nat. Simon Stephan

2. VERÖFFENTLICHUNGEN

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1. LEITUNG

Prof. Dr.-Ing. habil. Christof Hamel

Prof. Dr.-Ing. Udo Reichl

Prof. Dr.-Ing. habil. Martin Sommerfeld

Prof. Dr.-Ing. habil. Kai Sundmacher (geschäftsführender Leiter)

Prof. Dr.-Ing. habil. Evangelos Tsotsas

Prof. Dr. Ir. Berend van Wachem

2. VERÖFFENTLICHUNGEN

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