



OTTO VON GUERICKE
UNIVERSITÄT
MAGDEBURG

VST

FAKULTÄT FÜR VERFAHRENS-
UND SYSTEMTECHNIK

Publikationsbericht 2025

Institut für Chemie

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]

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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]

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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

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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 . - 2025, insges. 13 S. ;
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ABSTRACTS

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Development of custom vascular grafts for large BioPhantoms

7th Conference on Image-Guided Interventions - Magdeburg . - 2025, S. 81-82 ;

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DISSERTATIONEN

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 Verfahrens- und Systemtechnik 2025, 1 Online-Ressource (xiii, 124 Seiten, 21,97 MB) ;

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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]