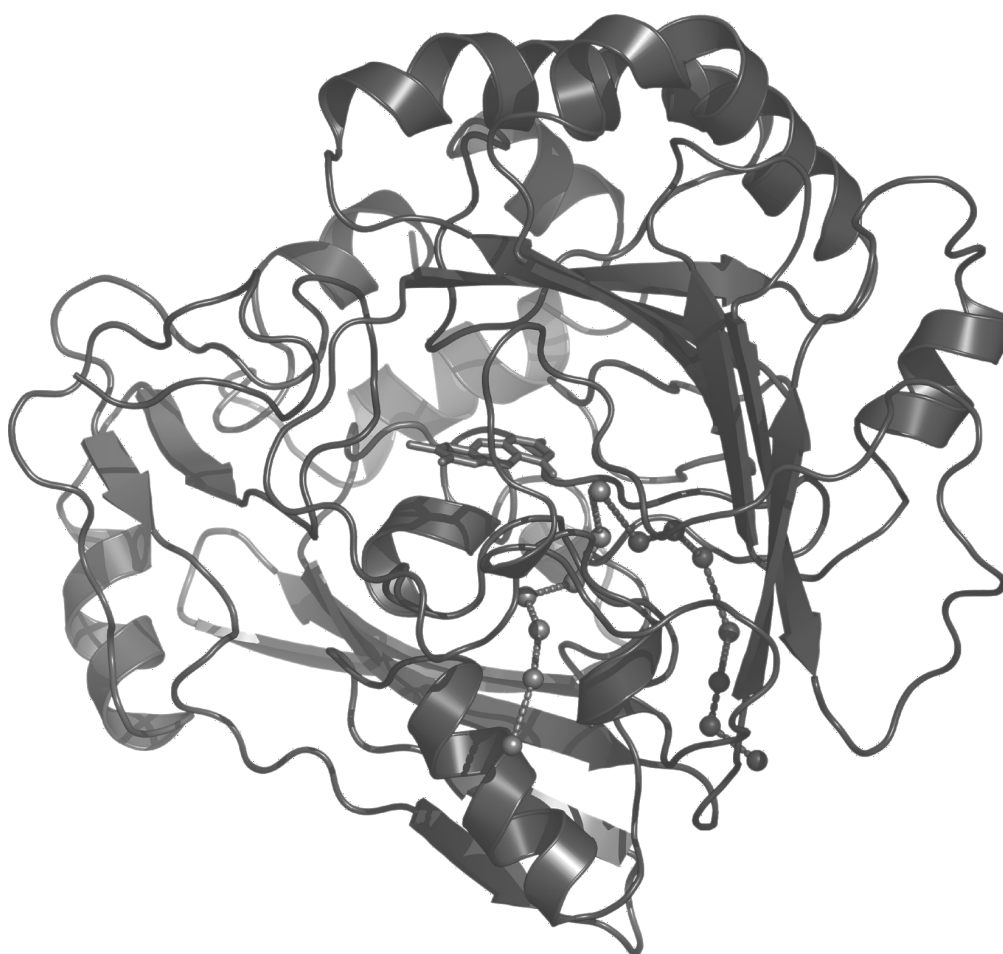




biocat2026
TU HAMBURG

**12th INTERNATIONAL CONGRESS
ON BIOCATALYSIS**



PROGRAM

23-27 AUGUST 2026

HAMBURG UNIVERSITY OF TECHNOLOGY | GERMANY

www.biocat-congress.de

Sunday, 23 August 2026

15:30–17:00 Registration

Audimax 1

17:00–18:45 Opening ceremony

Audimax 1

Chair: Andreas Liese

Chair: Anna-Lena Heins

Chair: Johannes Gescher

Welcome note by the TUHH President

Andreas Timm-Giel

Welcome note with musical act SymphonING

Andreas Liese

Biocatalytic Processes for Manufacturing Nucleosides, Nucleotides and Nucleic Acid

Stefan Lutz

Utilizing genome sequences for enzyme discovery

Haruyuki Atomi

19:00–22:00 Welcome reception

Mensa · Building I

Monday, 24 August 2026

08:30–10:30 **Invited Speakers Topic 1 + 6 AI-driven enzyme engineering and reaction prediction + Synthetic biology and whole-cell biocatalysis**

Audimax 1

Chair: Alexander Pelzer

08:30–09:00 Biocatalysis in sustainable drug discovery and development: Evolving perspective from pharmaceutical industry

Ania Fryszkowska

09:00–09:30 Expanding the Boundary of Biocatalysis: From Directed Evolution to Autonomous Experimentation

Huimin Zhao

09:30–10:00 Programmable protein materials for multi-enzyme cascades

Claudia Schmidt-Dannert

10:00–10:30 Unlocking cGAS for 2'3'-cGAMP Synthesis: From Enzyme Discovery to Process Perspectives

Katrin Rosenthal

10:30–11:00 **Coffee break & Industrial exhibition**

Foyer

11:00–12:20 **Morning Session Topic 1 AI-driven enzyme engineering and reaction prediction**

Audimax 1

Chair: Stefan Lutz

11:00–11:20 High-Throughput Profiling of Activity, Stability, and Substrate Specificity of Protein Catalysts using Enzyme Proximity Sequencing

Vanella Rosario

11:20–11:40 Next-Generation Peroxygenase Engineering: From AlphaFold2 Discovery to Machine Learning Optimization

Martin Weissenborn

11:40–12:00 Accelerating Protein Evolution: Precise Prediction of Higher-Order Mutants via the AI-Driven 3DM Engineering Platform

Henk-Jan Joosten

12:00–12:20 Bayesian Optimization: Intelligent and Efficient Optimization of Biocatalytic Reactions and Beyond

Martin Schürmann

12:20–13:45 Lunch at Mensa

Mensa · Building I

13:30–13:40 Hands-on lecture: Immobilized Enzymes in Industry – presented by Sunresin

Ditze lecture hall

Immobilized Enzymes in Industry: New Chemistries, Regulatory Perspectives and Emerging Applications

Alessandra Basso

13:45–14:45 Lightning talks Topic 1, 4, 6

Audimax 1

Chair: Selin Kara

13:45–13:48 Gas-liquid Interface Effects on NOX Enzymes Studied using Molecular Dynamics Simulations

P 111

Julie Hovring

13:48–13:51 Structural & Functional Insights into Enzymatic Non-Natural Carbologation

P 48

Suresh Rohan

13:51–13:54 Chemistry-informed machine learning guides enantioselective enzyme engineering

P 13

Manu Shivanand Suvarna

13:54–13:57 Structure and Data Driven Engineering of Enzymes: Monooxygenases and Hydrolases

P 130

Alexandra Teresa Pires Carvalho

13:57–14:00 Machine Learning Guided Design of an Unspecific Peroxygenase for Selective β -damascone Hydroxylation**P 1**

Li Wan

14:00–14:03 All-Enzyme-Hydrogel Formulations for Flow Biocatalysis

P 71

Jennifer Kühne

14:03–14:06 Engineering Membrane-bound Alkane Monooxygenase for Increased Activity in the Conversion of Linear and Branched Aliphatic Esters

P 108

Jelena Spasić

14:06–14:09 Exploring New Scaffolds for the Design of Artificial Enzymes Using Non-canonical Amino Acids

P 16

Emilia Iglesias

14:09–14:12 Formulation of hybrid enzyme-materials for flow biocatalysis

P 39

Marc Florian Munker

14:12–14:15 Comparative characterization of α -1,2-fucosyltransferases for de novo biosynthesis of 2'-fucosyllactose in *Escherichia coli***P 90**

Timo Post

- 14:15–14:18
P 4 Sustainable Production of 1,3-Propanediol from Glycerol Using a Hydrogen-Driven Enzyme Cascade Immobilized on "SMART" Materials
Fabian Lange
- 14:18–14:21
P 114 Integrated Biocatalytic Strategies for 5-Ketogluconic Acid Production: Toward Sustainable FDCA Biomanufacturing
Mengyuan Kong
- 14:21–14:24
P 7 Light-Driven Biocatalysis with Cyanobacteria: Toward Sustainable Oxidations
Hanna Grimm
- 14:24–14:27
P 36 Expanding the Catalytic Landscape of Fungal Rutinosidases: Glycone Promiscuity and Side-Tunnel Engineering for Transglycosylation
Vladimír Křen
- 14:27–14:30
P 19 Short-Circuiting the SAM-Cycle in Escherichia coli
Zhong Li
- 14:30–14:33
P 10 Near-Quantitative Racemization in Minutes with Immobilized NSAAR: A Continuous Packed-Bed Platform for Biocatalytic Process Intensification
Johannes Eder
- 14:33–14:36
P 74 Application of fatty acid photodecarboxylase in deep eutectic solvents
Aikaterini Margariti
- 14:36–14:39
P 77 Enzymatic Reaction Kinetics within Pickering Emulsions through Progress-curve Analysis
Maximilian Seiler
- 14:39–14:42
P 93 Haloalkane Dehalogenases as Evolvable Scaffolds for the Construction of Artificial Metalloenzymes
Corina Šljubura
- 14:42–14:45
P 156 Enhancing product specificity of Chalcone Synthase (CHS) through Natural Deep Eutectic Solvents (NADES)
Mohammad Youse

14:45–15:45 Poster session BLUE

Rooms H0.01–H0.09 · Building H

- P 1** Machine Learning Guided Design of an Unspecific Peroxygenase for Selective β -damascone Hydroxylation
Li Wan · Room H0.09
- P 4** Sustainable Production of 1,3-Propanediol from Glycerol Using a Hydrogen-Driven Enzyme Cascade Immobilized on "SMART" Materials
Fabian Lange · Room H0.09
- P 7** Light-Driven Biocatalysis with Cyanobacteria: Toward Sustainable Oxidations
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- P 10** Near-Quantitative Racemization in Minutes with Immobilized NSAAR: A Continuous Packed-Bed Platform for Biocatalytic Process Intensification
Johannes Eder · Room H0.09

- P 13** Chemistry-informed machine learning guides enantioselective enzyme engineering
Manu Shivanand Suvarna · Room H0.09
- P 16** Exploring New Scaffolds for the Design of Artificial Enzymes Using Non-canonical Amino Acids
Emilia Iglesias · Room H0.09
- P 19** Short-Circuiting the SAM-Cycle in Escherichia coli
Zhong Li · Room H0.09
- P 22** Process design and scale-up of biocatalytic isoeugenol synthesis using engineered PROGO
Miloš Trajković · Room H0.09
- P 25** Directed Engineering of Glycosyltransferases and Glycan Chain Modification Mechanisms
Peng Chen · Room H0.09
- P 28** Beyond Aromatic Dihydroxylation: N-Oxidation Catalyzed by Aromatic Ring-Hydroxylating Dioxygenases
Jona Schelle · Room H0.09
- P 31** Characterisation of Formaldehyde dehydrogenases
Jeppe Refshauge Christensen · Room H0.09
- P 34** Model-based Bayesian Optimization for the Bioreaction Engineering of a Reductive Amination
Robert Mönch · Room H0.09
- P 36** Expanding the Catalytic Landscape of Fungal Rutinosidases: Glycone Promiscuity and Side-Tunnel Engineering for Transglycosylation
Vladimír Křen · Room H0.09
- P 39** Formulation of hybrid enzyme-materials for flow biocatalysis
Marc Florian Munker · Room H0.09
- P 42** Discovery, Characterization and Engineering of New Thermostable Nylon-Degrading Enzymes from Leucobacter humi
Gaia Rota · Room H0.08
- P 45** Synergizing Engineered DERA and De Novo Retro-Aldolase Enables Enantiodivergent Synthesis of Aryl Aldols
Jeevani Kodru · Room H0.08
- P 48** Structural & Functional Insights into Enzymatic Non-Natural Carboligation
Suresh Rohan · Room H0.08
- P 51** From Textile Waste to Value: Biocatalytic Recycling of Polyester Blends with Trichoderma reesei
Matthias Tobler · Room H0.08
- P 54** Adaptive Polymer Platforms for Enzyme-Based Self-Regulating Catalysis
Kayla Dittmer · Room H0.08
- P 57** Catalytic Peptides as Minimal Active Site Models Reveal Sequence–Solvent–Activity Relationships in Deep Eutectic Solvents
Lukas Platz · Room H0.08
- P 59** CvFAP as evolvable platform for new-to-nature radical biotransformations
Florian Oehlschläger · Room H0.07

- P 62** Balancing Solvent Performance and Fungal Tolerance in a Screening Study of Deep Eutectic Solvents for Lignin Solubilization
Irina Modrušan · Room H0.07
- P 65** Sustainable Lactone Synthesis via Redox-Neutral Biocatalysis
Lukas Steinreiber · Room H0.07
- P 68** *Rhinella marina* N-methyltransferase (RmNMT) as a Versatile Biocatalyst: From Enzyme Characterization to Immobilized Systems for Alkaloid Production
Gabriela Irazoqui · Room H0.07
- P 71** All-Enzyme-Hydrogel Formulations for Flow Biocatalysis
Jennifer Kühne · Room H0.07
- P 74** Application of fatty acid photodecarboxylase in deep eutectic solvents
Aikaterini Margariti · Room H0.07
- P 77** Enzymatic Reaction Kinetics within Pickering Emulsions through Progress-curve Analysis
Maximilian Seiler · Room H0.07
- P 80** Analysis and Application of Prostaglandin F₂ α 9-Dehydrogenase from *Rhodotorula kratochvilovae*
Eitora Yamamura · Room H0.07
- P 85** Energy-conserving arginine utilization catalyzed by arginine synthetase
Yuta Michimori · Room H0.07
- P 88** Citrus by-products as a platform for bioproduct development and territorial bioeconomy opportunities: quantification of pectin, flavonoids, and essential oils
Lucía Cruz Jirón · Room H0.06
- P 90** Comparative characterization of α -1,2-fucosyltransferases for de novo biosynthesis of 2'-fucosyllactose in *Escherichia coli*
Timo Post · Room H0.06
- P 93** Haloalkane Dehalogenases as Evolvable Scaffolds for the Construction of Artificial Metalloenzymes
Corina Šljubura · Room H0.06
- P 96** Selective Enzymatic Hydroxylation of N-Heterocycles
Niklas Dietz · Room H0.06
- P 99** An enzymology oriented protein virtual screening software - WhatCat
Erik Sundén · Room H0.06
- P 102** Highly tunable artificial Suzuki-ases enable the enantioselective synthesis of atropisomers
Willy W L See · Room H0.06
- P 105** Biocatalytic synthesis of Norephedrine
Nilesh Deokate · Room H0.05
- P 108** Engineering Membrane-bound Alkane Monooxygenase for Increased Activity in the Conversion of Linear and Branched Aliphatic Esters
Jelena Spasić · Room H0.05
- P 111** Gas-liquid Interface Effects on NOX Enzymes Studied using Molecular Dynamics Simulations
Julie Hovring · Room H0.05

- P 114** Integrated Biocatalytic Strategies for 5-Ketogluconic Acid Production: Toward Sustainable FDCA Biomanufacturing
Mengyuan Kong · Room H0.05
- P 117** Development of Lipase Silica Composites for Enhanced Biocatalytic Performance
Byoung Seung Jeon · Room H0.05
- P 120** Engineering a Biofilm-Forming *Comamonas thiooxidans* Platform for Enzymatic PET Recycling at Mesophilic Temperatures
Marno Gurschke · Room H0.04
- P 123** Ligand Driven Modulation of TPH2 dimerization: Energetic Insights from Enhanced Molecular Dynamics Simulations
Astrid Aabo Olsen · Room H0.04
- P 125** Investigation of Edible Mushroom Species for Growth on Whey
Marian Nassar · Room H0.04
- P 128** Accelerating Enzyme Engineering through In Silico Prediction of Inactive Variants
Mahdi Bagherpoor Helabad · Room H0.04
- P 130** Structure and Data Driven Engineering of Enzymes: Monooxygenases and Hydrolases
Alexandra Teresa Pires Carvalho · Room H0.04
- P 133** Co-Immobilized Enzyme Systems for Sustainable Production of Limonene Derivatives
Manuel Pérez-Soto · Room H0.04
- P 136** Stability of S-1-phenylethanol dehydrogenase from *Aromatoleum aromaticum*: Effect of pH and temperature
M. Tataruch · Room H0.03
- P 138** Discovery of a Thermophilic Archaeal Esterase Active on PET Degradation Intermediates
Zala Perko · Room H0.03
- P 141** Directed Evolution of Hyperstable Amidases for Biocatalytic CO₂ Desorption from Monoethanolamine
Anna Walerowicz · Room H0.03
- P 144** One-step in vivo immobilization of cofactor-dependent enzymes for the efficient and sustainable production of nylon precursors in continuous flow reactors
Marianne Lee · Room H0.03
- P 148** Converging paths: mechanism-tailored machine learning for substrate scope prediction
Diana Amariei · Room H0.03
- P 150** Enzyme immobilization for efficient heterogeneous oxyfunctionalizations in microfluidics
Nektaria Chaido Liakouli · Room H0.03
- P 153** Establishment of an Enzymatic Platform for the Production of Type O Blood Products
Berenika Stloukalová · Room H0.03
- P 156** Enhancing product specificity of Chalcone Synthase (CHS) through Natural Deep Eutectic Solvents (NADES)
Mohammad Youse · Room H0.03
- P 160** A Biocatalytic Route to Pyrazines: Expanding Transaminase Versatility
Carlotta Chiesa · Room H0.03

- P 165** Shedding light on metabolic burden in bioprocesses: Quantifying cellular stress across expression levels in *Escherichia coli*
Julia von Irmer · Room H0.02
- P 168** Automated Screening of Hydroxylases for the Synthesis of Raspberry Ketone
Lisa Guo · Room H0.02
- P 171** Continuous biocatalytic in situ-crystallisation in a two-reactor system
Katharina Wittmann · Room H0.02
- P 174** *Ferrigenium straubiae*'s nitric oxide reductase (eNOR) and a putative novel NADH-quinone oxidoreductase
Stefanie Becker · Room H0.02
- P 177** Regioselective Esculetin Methylation by Engineered Isoeugenol-O-Methyltransferase
Parthena (Renia) Fotiadou · Room H0.02
- P 179** Discovery and Structure-Guided Evolution of a Novel α -ketoglutarate Dependent Halogenase for Regioselective C-H Functionalization of a Pharmaceutically Relevant Scaffold
Hannes Mandon · Room H0.02
- P 182** Continuous Flow Biocatalysis with Immobilised Hydroxynitrile Lyases for Enantioselective Henry Reactions in a Biphasic System
Aleksandra Lambarska · Room H0.02
- P 185** Upscaling and Evaluation of the Transaminase-Catalyzed Reductive Amination of 5-(hydroxymethyl)furfural
Tom Kunde · Room H0.01
- P 189** Beyond Chemical Demethylation – Regioselective O-Demethylation of Complex Ethers via an Engineered P450 BM3 Mutant
Maximilian Wutscher · Room H0.01
- P 192** Deciphering new methanol dehydrogenases and understanding how active site architecture defines substrate scope
Anna Christina Ngo · Room H0.01
- P 194** Engineering Silica Supports for the Industrial Scale-Up of Immobilized Lipase Biocatalysts
Francois Chiron · Room H0.01
- P 197** Reagent-free rapid immobilization of proteins and enzymes on porous polymer membranes
Martin Schmidt · Room H0.01
- P 200** A Novel 2'-O-Methyl Nucleoside Demethylation Reaction Catalyzed by 2-Oxoglutarate- and Fe(II)-Dependent PHYH-like and PHYHD1 Dioxygenases
Justas Stonkus · Room H0.01
- P 203** Enzyme Driven Hybrid Materials – Reversible Actuation in Aqueous Environments
Michelle David · Room H0.01

15:45–16:15 Coffee break & Industrial exhibition

Foyer

16:15–18:15 Afternoon session Topic 6 Synthetic biology and whole-cell biocatalysis

Audimax 1

Chair: Vladimír Křen

16:15–16:35 **A Scalable Whole-Cell Oxyfunctionalization Cascade Based on P450 Fusion and ATF1 Co-expression**

Mirsanan Mirhadiyev

16:35–16:55 **Awakening the sleeping giant of lignocellulosic HMF into value-added furfurylamines via enzymatic systems in aqueous and organic media**

Hyungdon Yun

16:55–17:15 **Driving Redox Biotransformations using Water Oxidation for Cofactor Regeneration: Towards Sustainable Cyanobacterial Biotransformations in Flow**

Lenny Malihan-Yap

17:15–17:35 **An Enzymatic Toolbox for the Deprotection of Alkyl Ethers**

Verena Scheibelreiter

17:35–17:55 **Overcoming Redox Limitations in CYP153A Systems via Synthetic Operons and Enzyme Engineering for Polyethylene Waste Upcycling**

Frederik Vig Benfeldt

17:55–18:15 **Accessible Biocatalyst Development by Rapid In vitro Semi-rational Engineering (RISE) of Enzymes**

András Telek

Tuesday, 25 August 2026

08:30–10:30 **Invited Speakers Topic 2 + 5 Advanced reaction cascades: Electro-, chemo- and photo-biocatalysis + Modular bioprocess engineering and automation**

Audimax 1

Chair: Jens-Erik Nielsen

08:30–09:00 **Unlocking New Possibilities of Biocatalytic Transition Metal Catalysis**

Xiongyi Huang

09:00–09:30 **Sustainable practices in Biocatalysis**

Francesca Paradisi

09:30–10:00 **Microreactors as Modular Platforms for Biocatalytic Process Design**

Polona Žnidaršič-Plazl

10:00–10:30 **Industrial Biocatalysis - Case of Immobilized Enzymes**

Pavle Andrić

10:30–10:50 **Coffee break & Industrial exhibition**

Foyer

10:50–12:10 **Morning Session Topic 2 Advanced reaction cascades: Electro-, chemo- and photo-biocatalysis**

Audimax 1

Chair: Sandy Schmidt

10:50–11:10 **Formulating Active, Self-Assembling Biocatalytic Materials from Enzymes**

Kersten Rabe

11:10–11:30 **Tungsten Aldehyde Oxidoreductase – a key catalyst for H₂-powered cascade conversion of carboxylic acids.**

Maciej Szaleniec

11:30–11:50 **The Synthesis of Nature-Inspired Spirocycles via a Diazotase-Mediated Photo-Biocatalytic Cascade**

Angelina Osipyan

11:50–12:10 **AI-guided enzyme cascade engineering for sustainable production of glucaric acid**

Neha Verma, Torsten Sehl

12:10–13:30 **Lunch at Mensa**

Mensa · Building I

13:30–14:30 Lightning talks Topic 2, 3 + 5

Audimax 1

Chair: Uwe Bornscheuer

- 13:30–13:33
P 2 Enzymatic cascade towards N-methyltyramines - Characterization and beyond
Isabella Elisabeth Emilie Kroschel
- 13:33–13:36
P 17 Development of Efficient Photo-Biocatalytic Processes for Unspecific Peroxygenases
Justin Ovaert
- 13:36–13:39
P 131 Cascade Systems for Carboxylic Acid Reduction: Coupling Hydrogen Oxidation by Tungsten Aldehyde Oxidoreductase to Acid Reduction and Cofactor Recycling
Anna Szot
- 13:39–13:42
P 94 Beyond structure: Intrinsically Disordered Proteins (IDPs) as a bioinspired platform for enhanced enzyme stability and activity
Ana I. Benítez-Mateos
- 13:42–13:45
P 115 Synthesis of Tertiary Alcohols via Aldol Reactions of Ketones Mediated by 2-Oxoacid Aldolases
Andrea Suárez Herrera
- 13:45–13:48
P 8 Co-immobilization of enzymes with different stabilities: How to use the glutaraldehyde chemistry to re-use the most stable immobilized enzyme after the inactivation of the least stable enzyme
Pedro Abellanas-Perez
- 13:48–13:51
P 91 Enzyme Engineering for Enhanced Formate to Formaldehyde Conversion in an Electro Enzymatic System
Anna-Lena Drommershausen
- 13:51–13:54
P 43 Enabling efficient enzymatic cascade reactions of thermally incompatible enzymes via localized heating
Yu Ma
- 13:54–13:57
P 109 A Continuous-Flow Photobioreactor with Recyclable, Immobilized Cyanobacteria for Light-Driven Biocatalysis
Qian Liang
- 13:57–14:00
P 37 Amoxicillin Production via a Two-Step Chemoenzymatic Process Integrating Ion Exchanger and Penicillin G Acylase
Francesco Mascia
- 14:00–14:03
P 40 Oxyfunctionalization of tricyclic "new-to-nature" terpenoids with unspecific peroxygenases (UPOs) by exploring the UPOspace
Bonnie Winter
- 14:03–14:06
P 5 Electro-driven H₂-powered cofactor regeneration enables closed-loop flow biocatalysis across oxidoreductases and lignin valorization
Lars Lauterbach
- 14:06–14:09
P 11 Cascade-driven UPO-based epoxidation combined with a subsequent Ring-Opening reaction for the synthesis of substituted alcohols
Simon Last

- 14:09–14:12
P 20 Breaking Down Plastics: Discovery and Engineering of Novel hydrolases for Circular Plastic Recycling
Malthe Kjær Bendtsen
- 14:12–14:15
P 72 PicoScreen: Ultra-high-throughput picoliter-based screening platform for discovery of biocatalysts for the bioeconomy
Ashkan Samimi
- 14:15–14:18
P 75 Sequence mining and biocatalytic exploration to expand the fatty acid hydratase enzymatic toolbox
Alejandro Gran-Scheuch
- 14:18–14:21
P 14 From batch to continuous enzymatic synthesis of 5-hydroxymethylfurfural stearate catalyzed by an immobilized lipase
Nadia Guajardo
- 14:21–14:24
P 112 Analysis of phenotypic population heterogeneities in fed-batch L-cysteine production processes with *Escherichia coli*
Jose Enrique Oropeza Vargas
- 14:24–14:27
P 157 Continuous Flow Biocatalysis: The importance of bioprocess development in the biocatalysis of UDP-sugars
Tom Roberts
- 14:27–14:30
P 78 Developing High-throughput Screening for Immobilised Biocatalysts Engineering for Carbon Up-cycling
Jiayi Hou

14:30–15:30 Poster session GREEN

Rooms H0.01–H0.09 · Building H

- P 2** Enzymatic cascade towards N-methyltyramines – Characterization and beyond
Isabella Elisabeth Emilie Kroschel · Room H0.09
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Justin Ovaert · Room H0.09

- P 20** Breaking Down Plastics: Discovery and Engineering of Novel hydrolases for Circular Plastic Recycling
Malthe Kjær Bendtsen · Room H0.09
- P 23** Climate-Informed Lignin Valorisation in Bioprocesses
Chloe Ng-Brossard · Room H0.09
- P 26** A sustainable route to delta-decalactone by coupling fermentation and biocatalysis
Sébastien WILLOT · Room H0.09
- P 29** Engineering Cyanobacteria for High-Yield Photosynthetic Isoprene Production
Kim Janssen · Room H0.09
- P 32** Biological Degradation of Recalcitrant Hydrocarbons from Industry Waste
José Julián Picado Morales · Room H0.09
- P 35** Integrated Strategies for the Discovery of Plastic-Active Biocatalysts: Chromogenic Biosensors and Environmental Metagenomics
Robert Dierkes · Room H0.09
- P 37** Amoxicillin Production via a Two-Step Chemoenzymatic Process Integrating Ion Exchanger and Penicillin G Acylase
Francesco Mascia · Room H0.09
- P 40** Oxyfunctionalization of tricyclic "new-to-nature" terpenoids with unspecific peroxygenases (UPOs) by exploring the UPOspace
Bonnie Winter · Room H0.09
- P 43** Enabling efficient enzymatic cascade reactions of thermally incompatible enzymes via localized heating
Yu Ma · Room H0.08
- P 46** Recombinant Expression and Functional Characterization of Tetrathionate Hydrolases
Jessica Graalman · Room H0.08
- P 49** Biomineralization of CO₂ by bacterial carbonic anhydrases
Jonas Krapohl · Room H0.08
- P 52** Engineering of urethanase SP2 by computational methods for increased polyurethane degradation
David Sjönell · Room H0.08
- P 55** Automating Primer Design for Multi-Variant Mutagenesis: A Minimal-Step, Colony-Based Approach
Konstantin Weigmann · Room H0.08
- P 60** Oxidative Biocatalysis in Non-Conventional Media
Nils Weindorf · Room H0.07
- P 63** Deciphering Structure-Functional Relationships in Plant Terpene Synthases Using Ancestral Sequence Reconstruction
Victor Pricop · Room H0.07
- P 66** Design of Multiphasic Redox Biocatalysis in Hydrophobic Deep Eutectic Solvents
Viktoria Lahmann · Room H0.07

- P 69** Characterization of a Novel Lichen-forming Aromatic Prenyltransferase Expressed in *E. coli* and *B. subtilis*
Ziwei Wang · Room H0.07
- P 72** PicoScreen: Ultra-high-throughput picoliter-based screening platform for discovery of biocatalysts for the bioeconomy
Ashkan Samimi · Room H0.07
- P 75** Sequence mining and biocatalytic exploration to expand the fatty acid hydratase enzymatic toolbox
Alejandro Gran-Scheuch · Room H0.07
- P 78** Developing High-throughput Screening for Immobilised Biocatalysts Engineering for Carbon Up-cycling
Jiayi Hou · Room H0.07
- P 81** Access to nitrogen-nitrogen bond-containing heterocycles through substrate promiscuity of piperazate synthases
yongxin li · Room H0.07
- P 83** A novel styrene monooxygenase: From lignin building blocks to epoxides
Max Scholz · Room H0.07
- P 86** Structural and catalytic analyses of eugenol oxidase variants
Tobias Rapsch · Room H0.07
- P 91** Enzyme Engineering for Enhanced Formate to Formaldehyde Conversion in an Electro Enzymatic System
Anna-Lena Drommershausen · Room H0.06
- P 94** Beyond structure: Intrinsically Disordered Proteins (IDPs) as a bioinspired platform for enhanced enzyme stability and activity
Ana I. Benítez-Mateos · Room H0.06
- P 97** Synthesis of Challenging Lactones Using Thioesterases
Emmanouil Chatzakis · Room H0.06
- P 100** Exploring the photosensitizing properties of lignin to enhance LPMO activity in enzymatic cocktails.
Constance Padoan · Room H0.06
- P 103** Integrating Unspecific Peroxygenase and Halohydrin Dehalogenase in a Cascade for Arene Functionalization in 3D Printed Continuous Flow Systems.
Merlin Hauer · Room H0.05
- P 106** Sustainable H₂-driven biocatalytic biotransformation utilising cofactor recycling for the production of value-added products in vivo and in vitro
Karen Brunsbach · Room H0.05
- P 109** A Continuous-Flow Photobioreactor with Recyclable, Immobilized Cyanobacteria for Light-Driven Biocatalysis
Qian Liang · Room H0.05
- P 112** Analysis of phenotypic population heterogeneities in fed-batch L-cysteine production processes with *Escherichia coli*
Jose Enrique Oropeza Vargas · Room H0.05

- P 115** Synthesis of tertiary alcohols via aldol reactions of ketones mediated by 2-oxoacid aldolases
Andrea Suárez Herrera · Room H0.05
- P 118** Development of a scalable 3-phase fluidized bed reactor for electroenzymatic applications with automated online analytics
Yang-Yang Tim Wang · Room H0.05
- P 121** Dynamic, process-aligned evolution of robust industrial transaminases
Tobias Baumann · Room H0.04
- P 124** ATR-FTIR-Based Inline Analytics for Characterization of Enzymatic Carboxylation of Resorcinol and 4-Vinyl Guaiacol in DESs
Aleksandr Oborovskiy · Room H0.04
- P 126** New insight into dehydrogenase enzymology for enzymatic CO₂ to methanol cascade systems
Thomas O'Regan · Room H0.04
- P 129** Reactive NaDES as Dual-Function Medium for Lipase-Catalyzed Esterification with ATR-FTIR Monitoring
Kiran Hidayat · Room H0.04
- P 131** Cascade Systems for Carboxylic Acid Reduction: Coupling Hydrogen Oxidation by Tungsten Aldehyde Oxidoreductase to Acid Reduction and Cofactor Recycling
Anna Szot · Room H0.04
- P 134** An enzymatic platform for the selective generation of non-natural amino acids
Jonathan Berger · Room H0.03
- P 139** Exploring ATP-grasp Ligases for Peptide Synthesis
Mona Haase · Room H0.03
- P 142** Thermally reversible Diels–Alder linkers for enzyme immobilisation
Emmanouil Broumidis · Room H0.03
- P 145** Robustness and stability of plasmid-based antibiotic-free Escherichia coli cultivation in industrial scale batch and fed-batch cultures
Donald De Leon · Room H0.03
- P 146** Exploration of Rih-type N-glycosidases for the synthesis of modified nucleobases
Kamilė Butkutė · Room H0.03
- P 151** Applying micro-aqueous reaction systems (MARS) in the biosynthesis of optically pure active pharmaceutical compounds (APIs)
Sönke Heeren · Room H0.03
- P 154** Enzyme discovery for scalable oxyfunctionalization: a multi-step approach to identify KGO kit candidates
Bogdan Barz · Room H0.03
- P 157** Continuous Flow Biocatalysis: The importance of bioprocess development in the biocatalysis of UDP-sugars
Tom Roberts · Room H0.03
- P 158** Functionalized Ceramic-Carbon Platforms for Lipase Immobilization
Sajida Perveen · Room H0.03

- P 161** Identification and characterization of novel Methanol Dehydrogenases
Cecilie Nørskov Jensen · Room H0.02
- P 163** Engineering lactate dehydrogenases for nicotinamide mononucleotide cofactor specificity
Felipe Domingues Blanco · Room H0.02
- P 166** Characterization, modelling and optimization of oxidative lactonization for biopolymer production from diols by *Lactobacillus brevis* alcohol dehydrogenase (LbADH)
Julian Handke · Room H0.02
- P 169** Bio-based multi- step enzymatic synthesis of the stereopure building blocks (1R,2S)- and (1R,2R)-2-amino-1-(4-hydroxyphenyl)propan-1-ol
Flora Maria Bindreiter · Room H0.02
- P 172** Recombinant *Gluconobacter oxydans*: A Novel Biocatalyst for Transformation of 5-(Hydroxymethyl) furfural to 2,5-Furandicarboxylic Acid
Leonardo Peña Carranza · Room H0.02
- P 175** Enzymatic Functionalization of Phytic Acid for Bio-Based Coatings
Vanessa Frizler · Room H0.02
- P 178** Immobilization of Flavin-Dependent Halogenases for Use in Continuous Flow
Bjarne Scharkowski · Room H0.02
- P 180** Thermostable Benzaldehyde Lyases for Synthesis of Chiral α -Hydroxy Ketones
Severin Philipp Stalter · Room H0.02
- P 183** Investigation of substrate selectivity of polyphosphate kinases 2 class III
Jan-Niklas Schwarz · Room H0.01
- P 186** Controlling the Regioselectivity of Fatty Acid Hydroxylation (C10) at α - and β -Position by CYP152A1 (P450Bs β) Variant
Nikolaus Stadlmann · Room H0.01
- P 190** A New-to-Nature Transformation: (Z)-Selective Synthesis of Cinnamic Acids using Thiamine-Dependent Enzymes
Laura Kqiku · Room H0.01
- P 193** Evidence of sulfur-compound reduction by the nitrogen-fixation-like enzyme from *Endomicrobium proavitum*
Marcello Herzog · Room H0.01
- P 195** Molecular-dynamics-simulation-guided directed evolution of flavoenzymes for atroposelective desaturation
Hongning Yin · Room H0.01
- P 198** Oosporein in *Phlebia centrifuga*: Identification of Key Enzymes by a Combination of Multi-Omics and Molecular Prediction
Niklas Broel · Room H0.01
- P 201** Developing solar-driven new-to-nature cascades for CO₂ fixation using light-harvesting inorganic photocatalysts
Oren Bachar · Room H0.01

15:30–15:50 Coffee break & Industrial exhibition

Foyer

15:50–16:50 Afternoon session Topic 2 Advanced reaction cascades: Electro-, chemo- and photo-biocatalysis

Audimax 1

Chair: Claudia Schmidt-Dannert

15:50–16:10 Adipic acid production from heterogenous hydrogenated phenols using biofunneling by *Pseudomonas taiwanensis* VLB120

Lea Seibert

16:10–16:30 Beyond Traditional Chemistry: A Multi-Enzyme Biocatalytic Strategy for Chemical Space Expansion

Admir Salihovic

16:30–16:50 Engineering Living Cell Membranes as Versatile Catalytic Scaffolds for Heterogeneous Photo- and Chemoenzymatic Cascades

Changzhu Wu

16:50–17:00 Group photo

In front of Building H

17:00–22:45 Congress dinner – ship ahoi!

MS Louisiana Star

17:15 Bus shuttle leaves in front of Building H

18:00 Boarding the “Louisiana Star”

18:30 Start of the harbour cruise

19:00 Dinner – and the biocat award ceremony

22:30 Return to Landungsbrücken

22:45 Bus shuttle back to Hamburg-Harburg

Wednesday, 26 August 2026

09:00–10:30 **Invited Speakers Topic 7 Biocatalysis for circular bioeconomy and climate solutions**

Audimax 1

Chair: Johannes Gescher

09:00–09:30 **Gas Fermentation to produce acetate and protein**
Lars Angenent

09:30–10:00 **Building molecules from thin air: Re-Inventing photosynthesis with Synthetic Biology and AI**
Tobias Erb

10:00–10:30 **Proteins in Deep Eutectic Solvents**
Karen Edler

10:30–11:00 **Coffee break & Industrial exhibition**

Foyer

11:00–12:20 **Morning session Topic 4 Biocatalysis in non-conventional media**

Ditze lecture hall

Chair: Karen Edler

11:00–11:20 **FAIR Fluids: integration and analysis of thermophysical data of aqueous deep eutectic mixtures**
Sascha Gabriel

11:20–11:40 **Stabilizing unspecific peroxygenase (UPO) with rationally designed deep eutectic solvents**
Nina Yilmaz

11:40–12:00 **Bridging Fermentation and Esterification: A Process-Intensified Route to Fatty Acid Ethyl Esters**
Emily Schepp

12:00–12:20 **Molecular Simulation of Lysozyme Stability in Osmolyte-Based Deep Eutectic Solvents**
Nicolás Gajardo-Parra

11:00–12:20 Morning session Topic 7 Biocatalysis for circular bioeconomy and climate solutions

Audimax 1

Chair: Tobias Erb

- 11:00–11:20 **Harnessing Acyl Transfer Biocatalysis for Amide Synthesis and CO₂ Conversion Pathways**
Christian Schnepel
- 11:20–11:40 **The Power of Butylamine as a Distillable Pretreatment Solvent: Efficiently Deconstructing Plants into Bioavailable Sugars**
Blake Simmons
- 11:40–12:00 **Integrating genetic context guided metagenome mining and whole-cell biocatalysis for bio-upcycling of synthetic polymer waste**
Stephan Thies
- 12:00–12:20 **Enzymatic Degradation of Polystyrene Using Peroxidase–Mediator Systems**
Liwah Keller
-

12:20–13:45 Lunch at Mensa

Mensa · Building I

13:45–14:45 Lightning talks Topic 3 + 7

Audimax 1

Chair: Katrin Rosental

- 13:45–13:48
P 95 **Identification and Characterization of Novel Ultraminimal Bacterial [FeFe] Hydrogenases**
Conrad Schumann
- 13:48–13:51
P 21 **Regioselective and Sequential O-Demethylation of Polymethoxyflavones by Anaerobic Cobalamin-Dependent O-Demethylases Isolated from the Human Gut Microbiome**
Niels Krabbe Johnsen
- 13:51–13:54
P 44 **Towards Efficient Identification of Amidases: Development of a Screening Platform**
Viktoria Warth
- 13:54–13:57
P 6 **Application of a novel ultra-highthroughput screening technique for lipolytic activity using double emulsions and fluorescence activated sorting**
Ana Caeiro
- 13:57–14:00
P 38 **Harnessing the Potential of Vanadium Chloroperoxidases for Efficient and Selective Biocatalytical Halogenation**
Sonja Schönrock
- 14:00–14:03
P 132 **Zymography-based functional metaproteomics enables the discovery of plastic-degrading enzymes**
Marina Prisacar

14:03–14:06 P 116	Bioprospecting and Characterisation of a Novel Thermophilic Ald-Keto Reductase Max Cardenas-Fernandez
14:06–14:09 P 18	An Unusually Small Inulinase from <i>Fusarium incarnatum</i> Reveals Distinct Structural and Biochemical Features Esmeralda Martínez Torres
14:09–14:12 P 41	New amine dehydrogenases for the synthesis of chiral amines Rieke Beuker
14:12–14:15 P 3	Metagenomic Mining for the Pairing of Multifunctional Fusion Enzymes for Advanced API Biocatalysis Jane Mueller
14:15–14:18 P 79	Expanding the Enzymatic Landscape for Polyurethane Degradation of Novel Bacterial Urethanases Laura Rotilio
14:18–14:21 P 58	Structure-based and machine learning-guided design of high-efficiency PET-degrading enzymes Georg Künze
14:21–14:24 P 110	Nitroreductase-triggered Indazole Formation Henrik Terholsen
14:24–14:27 P 9	LMCO2 – A novel laccase for PE degradation Chiara Tantillo
14:27–14:30 P 12	Regioselective Nitration of Renewables with Oxidative Enzymes Mosè Simone Galluzzo
14:30–14:33 P 92	Rubber Breakdown via Engineered Rubber oxygenase Enzymes Emil Zickler
14:33–14:36 P 113	Dynamics-guided rational engineering of a thermostable PURase for enhanced hydrolysis of commercial polyurethane shoe foam Rosie Graham
14:36–14:39 P 15	Enzymatic Denim Dyeing with Biocatalytic Indican Mandy Hobusch
14:39–14:42 P 61	Preparative-scale biocatalytic lignin depolymerization for the extraction of phenylpropanoids Julian Schilke
14:42–14:45 P 76	High-Throughput Screening of Levansucrases in <i>Pichia Pastoris</i> for Levan Production from Sugar Industry Residuals Simon Koopmeiners

14:45–15:45 Poster session YELLOW

Rooms H0.01–H0.09 · Building H

- P 3** Metagenomic Mining for the Pairing of Multifunctional Fusion Enzymes for Advanced API Biocatalysis
Jane Mueller · Room H0.09
- P 6** Application of a novel ultra-highthroughput screening technique for lipolytic activity using double emulsions and fluorescence activated sorting
Ana Caeiro · Room H0.09
- P 9** LMCO2 – A novel laccase for PE degradation
Chiara Tantillo · Room H0.09
- P 12** Regioselective Nitration of Renewables with Oxidative Enzymes
Mosè Simone Galluzzo · Room H0.09
- P 15** Enzymatic Denim Dyeing with Biocatalytic Indican
Mandy Hobusch · Room H0.09
- P 18** An Unusually Small Inulinase from *Fusarium incarnatum* Reveals Distinct Structural and Biochemical Features
Esmeralda Martínez Torres · Room H0.09
- P 21** Regioselective and Sequential O-Demethylation of Polymethoxyflavones by Anaerobic Cobalamin-Dependent O-Demethylases Isolated from the Human Gut Microbiome.
Niels Krabbe Johnsen · Room H0.09
- P 24** Biocatalytic Process for the Conversion of Milk Industry Sidestreams
Christoph Maximilian Eberenz · Room H0.09
- P 27** Biofilm-based approaches for PET upcycling processes
Sherliana Setiawan · Room H0.09
- P 30** Science communication and Edutainment of research on Productive Biofilm Systems - DFG SPP 2494
Rosvita Milo-Rieks · Room H0.09
- P 33** Gamified Learning of Bioprocess Engineering and Biocatalysis Using Kniffelix.de
Gesine Liese · Room H0.09
- P 38** Harnessing the Potential of Vanadium Chloroperoxidases for Efficient and Selective Biocatalytical Halogenation
Sonja Schönrock · Room H0.09
- P 41** New amine dehydrogenases for the synthesis of chiral amines
Rieke Beuker · Room H0.08
- P 44** Towards Efficient Identification of Amidases: Development of a Screening Platform
Viktoria Warth · Room H0.08
- P 47** Harnessing Enzymatic Diazotization for Chemoenzymatic N–N Bond Formation and Diversification
Sara Atienza Sanz · Room H0.08

- P 50** PAZy-guided exploration of landfill metagenomes for plastics-active enzyme candidates
Golo Feuerriegel · Room H0.08
- P 53** Construction of a synthetic lycopene pathway in a cell-free protein synthesis system
Taek Jin Kang · Room H0.08
- P 56** A chemoenzymatic cascade approach for (R)-citronellyl nitrile synthesis from natural citral
Federico Acciaretti · Room H0.08
- P 58** Structure-based and machine learning-guided design of high-efficiency PET-degrading enzymes
Georg Künze · Room H0.08
- P 61** Preparative-scale biocatalytic lignin depolymerization for the extraction of phenylpropanoids
Julian Schilke · Room H0.07
- P 64** Semi-rational Engineering of Aldehyde–Ketone Reductase for the Efficient Preparation of Chiral Diaryl α -Hydroxyamides
Liangyu Zheng · Room H0.07
- P 67** Toward Bio-Based Organocatalysis: PylRS Engineering Enables Efficient Genetic Encoding of L-ProK for Artificial Enzyme Design
Jan Hendrik Illies · Room H0.07
- P 70** Biocatalytic cascade to enhance vanillin biosynthesis from Eugenol
Christian Ascaso-Alegre · Room H0.07
- P 73** Hydrophobic Pocket Engineering for Increase of the Promiscuous Racemising Activity of Highly Stabilized Ancestral Decarboxylases
Christine Kaiserer · Room H0.07
- P 76** High-Throughput Screening of Levansucrases in *Pichia Pastoris* for Levan Production from Sugar Industry Residuals
Simon Koopmeiners · Room H0.07
- P 79** Expanding the Enzymatic Landscape for Polyurethane Degradation of Novel Bacterial Urethanases
Laura Rotilio · Room H0.07
- P 82** Multistep Oxidation of 5-HMF to FDCA Catalyzed by Unspecific Peroxygenases
Jonas Spang · Room H0.07
- P 84** Stability of ene-reductases in water-miscible organic cosolvents
Nathalia Vargas Valverde · Room H0.07
- P 87** Economical Assembly of Non-combinatorial Multi-Site Mutant Libraries via Golden Gate Synthesis
Clara Vogt · Room H0.06
- P 89** Investigating the solvent stability of Ca dehydrogenases involved in lignin depolymerization
Paola Eugenia Agustin Velez · Room H0.06
- P 92** Rubber Breakdown via Engineered Rubber oxygenase Enzymes
Emil Zickler · Room H0.06
- P 95** Identification and Characterization of Novel Ultraminimal Bacterial [FeFe] Hydrogenases
Conrad Schumann · Room H0.06

- P 98** The origin of catalysis from dynamics and electric fields to cofactor exchange in an extant and ancestral terpene synthase
Pauline Granit · Room H0.06
- P 101** Oxyfunctionalisation of Phenylacetic Acids to Mandelic Acids using CYP152 Peroxygenases
Stephan Vrabl · Room H0.06
- P 104** Formation of heteroaromatic amides catalysed by a lipase from *Sphingomonas* sp. HXN-200 (SpL) in water
Magdalena Abramiuk · Room H0.05
- P 107** Unraveling The Catalytic Mechanism Of Promiscuous Enzymatic Isomerization Reactions: A Case Study With Old Yellow Enzyme OYE2
Andrea Hloušek-Kasun · Room H0.05
- P 110** Nitroreductase-triggered Indazole Formation
Henrik Terholsen · Room H0.05
- P 113** Dynamics-guided rational engineering of a thermostable PURase for enhanced hydrolysis of commercial polyurethane shoe foam
Rosie Graham · Room H0.05
- P 116** Bioprospecting and Characterisation of a Novel Thermophilic Ald-Keto Reductase
Max Cardenas-Fernandez · Room H0.05
- P 119** Engineering Dehaloperoxidases for the Degradation of Persistent Phenolic Pollutants
Tina Lanzmaier · Room H0.04
- P 122** Functional genomics and metagenomics analysis of novel esterases from halophilic microorganisms: enzymatic esterification as a bio-based alternative to conventional chemistry
Alexandra Sklavou · Room H0.04
- P 127** QM/MM and MD Studies of Benzoxazole Biosynthesis by the Amidohydrolase NatAM
Robin Prünte · Room H0.04
- P 132** Zymography-based functional metaproteomics enables the discovery of plastic-degrading enzymes
Marina Prisacar · Room H0.04
- P 135** 100 years of enzyme immobilization, what's next?
Camiel de Ruiter · Room H0.03
- P 137** Photobiocatalytic Oxidation of rac-4-(4-Hydroxyphenyl)-2-butanol to Raspberry Ketone.
M. Abdulrasheed · Room H0.03
- P 140** Enzyme-Driven Synthesis of Pregabalin through a Multi-Step Biocatalytic Cascade
Jakub Zdarta · Room H0.03
- P 143** Decoding the Metabolic Activation of Clopidogrel via an Unspecific Peroxygenase of *Marasmius rotula*
Carlos Renato Carrillo Aviles · Room H0.03
- P 147** Towards H₂-Driven oxidation chemistry
Lukas Stratmann · Room H0.03
- P 149** Product-specific medium engineering of the biocatalytic hydrolysis of pef
Matilda Clark · Room H0.03

- P 152** Stereoselective Oxyfunctionalization of Steroids by Designed Peroxygenase Mutants: Bridging Batch Screening and Continuous Operation
Lars-Erik Meyer · Room H0.03
- P 155** Efficient SAM analog regeneration from bromoalkanes
Marius Schnutenhaus · Room H0.03
- P 159** A Novel Immobilized UPO Platform for Targeted Oxyfunctionalization Screening
Maria Zahid · Room H0.03
- P 162** From biomass to biopesticides: valorisation of lignin into photoactive antimicrobial nanoparticles
Christian Pétré · Room H0.02
- P 164** Comparison of Batch and Continuous Electrogeneration of Hydrogen Peroxide for Biotransformations with Unspecific Peroxygenases
Roshini Ravi Shankar · Room H0.02
- P 167** Uncovering bioprocess and culture medium effectors of cell aggregation and their interactions in HEK293-F cells for improved bioprocess control
Niklas Nathusius · Room H0.02
- P 170** Kinetic modeling and reaction engineering of multi-enzyme biocatalytic cascades for PET depolymerization
Juan M. Bolivar · Room H0.02
- P 173** Genomic Mining of a Uruguayan Streptomyces collection for novel N-methyltransferases: Tools for indolic compound diversification
Diego Umpierrez-Puchalvert · Room H0.02
- P 176** Intensification of alcohol dehydrogenase-ene reductase cascade in deep eutectic solvents
Francesco Napoletano · Room H0.02
- P 181** Toward Circular Bio-based Plastics: Exploring PHB Production and Recycling
Tabea Pudenz · Room H0.02
- P 184** Temperature and Active-Site Residues Govern Sucrose Transfructosylation in rInu-ISO3 Inulinase
Laura Jeanine Tafoya Olivos · Room H0.01
- P 187** Racemisation-free L-proline amidation in organic media using ammonia
Aneta Swarovska · Room H0.01
- P 188** Using Transaminases as Dehalogenases: Understanding Their Unexpected Defluorination Potential
Tobias Heinks · Room H0.01
- P 191** Biotechnological potential of the C8 oxylipin biosynthetic pathway
Annika Wagner · Room H0.01
- P 196** Holistic measurement of CO₂ emissions in (bio)processes – Or when can we call them green?
Pablo Domínguez de María · Room H0.01
- P 199** SelectZyme: AI-Based Interactive Protein Space Visualization for Enzyme Discovery, Selection, and Mining
Mehdi Davari · Room H0.01

P 202 Metal-Driven Stereocontrol in KPHMT and YfaU Aldolases for the Synthesis of Hydroxyproline Acid Precursors
Corina Šljubura · Room H0.01

15:45–16:15 Coffee break & Industrial exhibition

Foyer

16:15–17:55 Afternoon session Topic 5 Modular bioprocess engineering and automation

Ditze lecture hall

Chair: Anna-Lena Heins

16:15–16:35 3D Magnetic Resonance Imaging of Hydrodynamics and Shear Rates in Single-Use Bioreactors
Alexander Penn

16:35–16:55 Advancing Biocatalytic Activity and Mass Transport in Continuous-Flow Enzyme Membrane Reactors
Andrei Popkov

16:55–17:15 Process-Intensified Enzymatic Decarboxylation for Asymmetric Synthesis of α -Arylpropionic Acids with Immobilized Arylmalonate Decarboxylase
Jan Gerstenberger

17:15–17:35 Spatially Resolved Operando Profiling of Enzyme-Catalyzed Packed-Bed Flow Reactors Using Compact Profiling Reactors
Niklas-Maximilian Epping

17:35–17:55 Nanoscale Imaging of Immobilized Enzymes: Linking Spatial Distribution to Catalytic Activity
Zsófia Bognár

16:15–17:55 Afternoon session Topic 7 Biocatalysis for circular bioeconomy and climate solutions

Audimax 1

Chair: Lars Angenent

16:15–16:35 Toward the enzymatic upcycling of polystyrene and its copolymers
Manon Pujol

16:35–16:55 Transforming C1-compounds into value-added products in vitro
Franka Eiche

16:55–17:15 Flow Biocatalysis for CO₂ upcycling
William Rostain

17:15–17:35 Why Carbon Capture Alone Will Not Be the Solution in the Age of Climate Change
Lara Pfaff

17:35–17:55 Developing bioprocesses for sustainable chemical synthesis
Ksenia Niesel

Thursday, 27 August 2026

08:30–10:30 **Invited Speaker Topic 3 + 4 Enzyme discovery and functional metagenomics + Biocatalysis in non-conventional media**

Audimax 1

Chair: Roland Wohlgemuth

08:30–09:00 Taking Nature to the Next Level – Enzyme Development for Industrial Applications
Jessica Rehdorf

09:00–09:30 Rationale-guided Enzyme Engineering for Sustainable Biocatalysis
Pimchai Chaiyen

09:30–10:00 Enzymatic synthesis in Deep Eutectic Solvents: Catalysis across hydrophilic to hydrophobic realms
Selin Kara

10:00–10:30 Discovery and Engineering of Enzymes for the Depolymerization of Polyurethanes
Uwe Bornscheuer

10:30–10:50 **Coffee break & Industrial exhibition**

Foyer

10:50–12:30 **Morning Session Topic 3 Enzyme discovery and functional metagenomics**

Audimax 1

Chair: Pimchai Chaiyen

10:50–11:10 Multi-omics strategies reveal environmental polyamide degradation and add new structural scaffolds to the nylonase family
Alan Wypych, Nico Bäse

11:10–11:30 Mono C-Formylation of Resorcinol Derivatives via Biocatalytic C-C Bond Formation
Wolfgang Kroutil

11:30–11:50 Driving industrial innovation through enzyme discovery, engineering, and AI-driven methods
Jana Ford Husarcik

11:50–12:10 Engineering Cell-free protein synthesis for High-Throughput Enzyme Screening
Stephan Lütz

12:10–12:30 Pushing Past the Throughput Barrier in MS-based Enzyme Discovery
Denijel Latifovic

12:30–13:00 **Closing remarks**

Audimax 1