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73. BLOME, A.*; LUTTMANN, M.*; SEGERMANN, J.; JEKLE, M.; FRAHM, B.; MÜLLER, U., * = equal first authorship, *Process optimisation in the field of wheat dough processing using real-time recording of quality-relevant*

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74. HERNÁNDEZ RODRÍGUEZ, T.; POSCH, C.; PÖRTNER, R.; FRAHM, B. *Model assisted Design Strategies for Bioprocesses – Advanced statistical methods in industrial upstream cell culture*, ACHEMA 2022, 22. – 27.8.2022, Frankfurt am Main, Germany
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106. ANDERLEI, T.; FRAHM, B.; BÜCHS, J. *Online-Bestimmung der Sauerstofftransferrate (OTR) und der Kohlendioxidtransferrate (CTR) in geschüttelten Bioreaktoren*, GVC-Fachausschusstagung Bioverfahrenstechnik, 8. - 9.5.2000, Bamberg, Germany

Decorated poster presentations:

107. REINHARDT, L.; GASSENMEIER, V.; FELDT, S.; PLATE, S.; TREMMEL, M.; FRAHM, B.; STOSCH, M. *Mycelium-based materials from residues of the regional wood industry*, BioProcessingDays 2024, Themenschwerpunkt „Precision Fermentation for Food and More“, 26. - 28.2.2024, Recklinghausen,

Germany
– Poster price

108. HERNÁNDEZ RODRÍGUEZ, T.; PÖRTNER, R.; LANGE-HEGERMANN, M.; WURM, F.; FRAHM, B. *A systematic, model-based approach for decision making in upstream development – Considerations regarding clone selection and cell expansion*, 27th Meeting of the European Society for Animal Cell Technology (ESACT): Advanced Cell Technologies: Making Protein, Cell, and Gene Therapies a Reality, 26. - 29.6.2022, Lisbon, Portugal
– before the congress, already selected into the top 100 posters out of over 350, during the congress nominated into the top 10. Thus, invitation to publish in a special issue of the Journal 'Biotechnology & Bioengineering'.
109. HERNÁNDEZ RODRÍGUEZ, T.; POSCH, C.; SCHMUTZHARD, J.; STETTNER, J.; WEIHS, C.; PÖRTNER, R.; FRAHM, B. *Predicting industrial scale cell culture seed trains – considerations of input uncertainty, new process data and prognostic intervals using a Bayesian approach and sequential Bayesian updating*, 26th Meeting of the European Society for Animal Cell Technology (ESACT): Cell culture technologies: bridging academia and industry to provide solutions for patients, 5 - 8.5.2019, Copenhagen, Denmark,
– selected into the top 100 posters

Poster presentations:

110. MÜLLER, C.; ALARINTA, J.; FRAHM, B.; WIRTANEN, G. *Investigation of microbial spoilage in vegan foods*, 10. GDL Kongress Lebensmitteltechnologie 2024, 10. - 12.10.2024, Lemgo, Germany
111. GASSENMEIER, V.; CAMPOLONGO, G.; FRAHM, B. *Dissolved Carbon Dioxide in Addition to Dissolved Oxygen for In-situ Monitoring of Hybridoma Cell Culture*, 28th Meeting of the European Society for Animal Cell Technology (ESACT): Application of Cell Technologies to Advance the Health and Wealth of Society, 23. - 26.6.2024, Edinburgh, UK
112. BLOME, A.*; LUTTMANN, M.*; SEGERMANN, J.; JEKLE, M.; FRAHM, B.; MÜLLER, U., * = equal first authorship, *Process optimization in baked goods production using inline sensors and objective product evaluation*, BioProcessingDays 2024, Themenschwerpunkt „Precision Fermentation for Food and More", 26. - 28.2.2024, Recklinghausen, Germany

113. GASSENMEIER, V.; CAMPOLONGO, G.; FRAHM, B. *Real-time Monitoring of DCO_2 in addition to DO*, 8th Bioproduction Congress: Accelerating Biopharma Development for Patients, 5. - 6.10.2023, Lyon, France
114. HERNÁNDEZ RODRÍGUEZ, T.; RAMM, S.; LANGE-HEGERMANN, M.; FRAHM, B. *A systematic, model-based workflow for risk-based decision making in upstream development*, 14th European Congress of Chemical Engineering and 7th European Congress of Applied Biotechnology, 17. – 21.9.2023, Berlin, Germany
115. BLOME, A.*; LUTTMANN, M.*; SEGERMANN, J.; JEKLE, M.; FRAHM, B.; MÜLLER, U., * = equal first authorship, *Vorstellung des Projektes „Teig 4.0" - Prozessoptimierung im Bereich der industriellen Weizenteigverarbeitung*, Jahrestreffen der DECHEMA-Fachgruppen Hochdruckverfahrenstechnik und Lebensmittelverfahrenstechnik, 13. - 15.3.2023, Ruhr-Universität Bochum, Germany
116. HERNÁNDEZ RODRÍGUEZ, T.; RAMM, S.; LANGE-HEGERMANN, M.; FRAHM, B. *A systematic, model-based workflow for risk-based decision making in upstream development*, BioProcessingDays 2023, Themenschwerpunkt „Digitale Bioprozessentwicklung", 27.2. - 1.3.2023, Recklinghausen, Germany
117. GASSENMEIER, V.; KUHFUß, F.; DEPPE, S.; IFRIM, G.; HERNÁNDEZ RODRÍGUEZ, T.; FRAHM, B. *View on a mechanistic model of Chlorella vulgaris in shake flasks*, BioProcessingDays 2023, Themenschwerpunkt „Digitale Bioprozessentwicklung", 27.2. - 1.3.2023, Recklinghausen, Germany
118. RAMM, S.; HERNÁNDEZ RODRÍGUEZ, T.; FRAHM, B.; PEIN-HACKELBUSCH, M. *Comparison of Preprocessing Methods of Dielectric Spectroscopy Data and the Effects on Linear Regression*, BioProcessingDays 2023, Themenschwerpunkt „Digitale Bioprozessentwicklung", 27.2. - 1.3.2023, Recklinghausen, Germany
119. MÜLLER, C.; ALARINTA, J.; FRAHM, B.; WIRTANEN, G. *Microbial spoilage in vegan foods*, 10th International Congress of Food Technologists, Biotechnologists and Nutritionists: Smart Food for a Healthy Planet and Human Prosperity, 30.11. - 2.12.2022, Zagreb, Croatia
120. HERNÁNDEZ RODRÍGUEZ, T.; RAMM, S.; LANGE-HEGERMANN, M.; FRAHM, B. *A systematic, model-based workflow for risk-based decision making in upstream development*, 5th annual Bioprocessing Summit Europe, 22. - 24.3.2022, Barcelona, Spain, digitally presented

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122. HERNÁNDEZ RODRÍGUEZ, T.; POSCH, C.; PÖRTNER, R.; FRAHM, B. *Towards integration of prior knowledge and propagation of uncertainty for digital twins of biopharmaceutical production processes*, 10. ProcessNet-Jahrestagung und 34. DECHEMA-Jahrestagung der Biotechnologen 2020, 21. – 24.9.2020 as a web conference, Aachen, Germany
123. HERNÁNDEZ RODRÍGUEZ, T.; DEPPE, S.; GASSENMEIER, V.; KUHFUß, F.; TÖLLE, M.; IFRIM, G.; FRAHM, B. *Modeling of Chlorella vulgaris in shake flasks with respect to light intensity and light duration*, 10. ProcessNet-Jahrestagung und 34. DECHEMA-Jahrestagung der Biotechnologen 2020, 21. – 24.9.2020 as a web conference, Aachen, Germany
124. IFRIM, G.; DEPPE, S.; HERNÁNDEZ RODRÍGUEZ, T.; GASSENMEIER, V.; FRAHM, B. *Modeling of microalgae in an air-lift photobioreactor for biomass production*, BioProcessingDays 2020, Themenschwerpunkt „Nachhaltige Biotechnologie, Biopolymere: from waste to value“, 17. - 19.2.2020, Recklinghausen, Germany
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127. Ifrim, G.; Titica, M.; Deppe, S.; Frahm, B.; Barbu, M.; Caraman, S. *Multivariable control strategy for the photosynthetic cultures of microalgae*, 23rd International Conference on System Theory, Control and Computing (ICSTCC), 9. – 11.10.2019, Sinaia, Romania

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129. IFRIM, G.; DEPPE, S.; HERNÁNDEZ RODRÍGUEZ, T.; GASSENMEIER, V.; FRAHM, B. *Modeling of microalgae in an air-lift photobioreactor for biomass production*, DECHEMA Himmelfahrtstagung "Intensification and digitalisation for integral bioprocessing", 27. - 29.5.2019, Hamburg, Germany
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135. HERNÁNDEZ RODRÍGUEZ, T.; KRULL, S.; HASS, V. C.; PÖRTNER, R.; FRAHM, B. *Model-based cell culture control – unstructured, unsegregated models as a key element for adaptive seed train and fed-batch optimization*, DECHEMA Himmelfahrtstagung “Models for Developing and Optimising Biotech Production”, 22. - 24.5.2017, Neu-Ulm, Germany
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137. HERNÁNDEZ RODRÍGUEZ, T.; KOOPMANN, K. S.; PÖRTNER, R.; FRAHM, B. *Influence of parameter accuracies in cell culture seed train simulations*, BioProcessingDays 2017, Themenschwerpunkte „Prozesskontrolle, Modellierung“, 20. - 22.2.2017, Recklinghausen, Germany
138. KOOPMANN, K. S.; HERNÁNDEZ RODRÍGUEZ, T.; VÖRTLER, S.; BESHAY, U., MÖLLER, J.; PÖRTNER, R.; FRAHM, B. *Simulation of cell culture seed trains – investigation of the influence of parameter inaccuracies*, DECHEMA Himmelfahrtstagung “New Frontiers for Biotech-Processes”, 2. - 4.5.2016, Koblenz, Germany
139. HERNÁNDEZ RODRÍGUEZ, T.; VÖRTLER, S.; KERN, S.; PLATAS BARRADAS, O.; PÖRTNER, R.; FRAHM, B. *A software tool for biopharmaceutical seed train design and optimization*, BioProcessingDays 2016, Themenschwerpunkte „Bioprozesstechnik, Messen und Regeln“, 22. - 24.2.2016, Recklinghausen, Germany
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„Bioprozesstechnik, Messen und Regeln“, 22. - 24.2.2016, Recklinghausen, Germany

141. KERN, S.; PLATAS, O.; SCHALETZKY, M.; SANDIG, V.; FRAHM, B.; PÖRTNER, R. *Model-based strategy for cell culture seed train layout verified at lab scale*, 24th Meeting of the European Society for Animal Cell Technology (ESACT): C2P2: Cells, Culture, Patients, Products, 31.5. - 3.6.2015, Barcelona, Spain
142. HERNÁNDEZ RODRÍGUEZ, T.; PÖRTNER, R.; FRAHM, B. *Considerations for cell passaging in cell culture seed trains*, 24th Meeting of the European Society for Animal Cell Technology (ESACT): C2P2: Cells, Culture, Patients, Products, 31.5. - 3.6.2015, Barcelona, Spain
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International teaching:

166. FRAHM, B. *Scale-up of stirred vessels* at SeAMK (Seinäjoen ammattikorkeakoulu - Seinäjoki University of Applied Sciences) during the International Week 'Welfare and Responsibility', 11. – 15.2.2019, Seinäjoki, Finland
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Gastvorlesung:

168. FRAHM, B. *Scale-up von Rühr- und Bioreaktoren* at Hochschule Niederrhein University of Applied Sciendes, 23.11.2023, Krefeld, Germany, digitally presented

Presentations of developed equipment:

Presentation of the Dynamic Membrane Aeration Bioreactor at the

169. 21st Meeting of the European Society for Animal Cell Technology (ESACT): Cellular Solutions for Clinical Challenges, Bayer Technology Services stand, 7. - 10.6.2009, Dublin, Ireland
170. Technology Colloquium, 5.12.2008, BayKomm, Leverkusen, Germany
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Public relation articles, German (Öffentlichkeitsarbeit):

176. Linkedin-Beitrag am 22.8.2023 zu Teig 4.0: *Äußere Produkteigenschaften von Backwaren anhand von 3D-Modellen*

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177. Digitaler CIIT-Techtalk am 28.4.2023:
MÜLLER, U.; FRAHM, B.; BLOME, A.; LUTTMANN, M. *Mit ganzheitlicher Prozessbetrachtung und geeigneter Messtechnik zur optimalen Pizza - die Projektstrategie Teig 4.0,* mit Prof. Dr. Ulrich Müller, CIIT - Centrum Industrial IT, Lemgo, Germany
178. Artikel zum Besuch von Dr. Oetker am 20.9.2022:
Manager von Dr. Oetker und Lebensmittel-Wissenschaftler tauschen sich aus, th-owl.de/news, 23.09.2022, sowie intern in der Firma Dr. Oetker und in der LZ am 28.9.2022: *Manager von Dr. Oetker sprechen mit Lebensmittel-Wissenschaftlern*
179. Zeitschriftenartikel zum Forschungsprojekt:
Qualitätssicherung in Echtzeit durch Inline-Messtechnik, prozesstechnik online, Mareike Bähnisch, 31. März 2022
180. Zeitschriftenartikel zum Forschungsprojekt:
Der Blick ins Innere des Lebensmittels, dei Lebensmittelsicherheit und Analytik 04-2022, Mareike Bähnisch
181. Artikel zum entwickelten Seed Train-Software Tool:
Von lebenden Zellen produziert, MADE BY TH OWL, Sonderausgabe des Hochschulmagazins, 27.10.2021, p. 36-37
182. Titelstory im Campusmagazin der Technischen Hochschule Ostwestfalen-Lippe – Forschung für die Zukunft:
Von lebenden Zellen produziert, Ausgabe 1/2021, p. 44-45
183. Zeitungsartikel zur Forschung innerhalb des neuen Studiengangs Medizin- und Gesundheitstechnologie:
Tablette trifft Computer, Lippische Landes-Zeitung und Neue Westfälische, Astrid Sewing, 19.2.2018
184. Auszug aus dem Testimonial zum Promotionsstipendium von Tanja Hernández:
Jahresbericht 2016/2017 der Hochschule Ostwestfalen-Lippe, p. 50
185. Interview / Testimonial mit Tanja Hernández:
September 2017, online sowie als ausgestelltes Poster
186. mit dabei im Fernsehbeitrag im WDR, Lokalzeit OWL:
Die Medizinbranche brauche neben Ärzten auch mehr Ingenieure, meint

die Hochschule OWL. Ab dem kommenden Semester wird darum der in OWL einzigartige Studiengang „Medizin- und Gesundheitstechnologie“ angeboten., 2.5.2017

187. Entwickelte LED-Rundumbeleuchtung für die Algenkultivierung in disposable Bioreaktoren:
Jahresbericht 2012/2013 der Hochschule Ostwestfalen-Lippe, p. 35-36
188. 130.000 Euro für die Forschung – Zellforschung und Abwasseranalytik:
Lippenews.de, 30.11.2011

Awards and prizes:

- Springorum-medal, RWTH Aachen University
- Student prize of the German Society for chemical engineering and biotechnology (DECHEMA)
- Decoration for diploma from German secondary school qualifying for university admission

Lemgo, 2025-02-18