

Prof. Dr. Miriam Agler-Rosenbaum

Bio Pilot Plant · Head of Department +49 3641 532-1120 miriam.rosenbaum@leibniz-hki.de

Curriculum vitae

Main Research Areas

- Bioelectrochemical Systems
- Defined Microbial Mixed Cultures
- Droplet Microfluidics for Microbial Applications

Professional Career

Since 2017 Chair of Synthetic Biotechnology at Friedrich

	Schiller University Jena and Head of Bio Pilot Plant, Leibniz Institute for Natural Product Research and Infection Biology, (HKI) Jena
2011-2017	Junior professor in the field of Microbiology of Defined Mixed Cultures, Institute of Applied Microbiology, RWTH Aachen University, Germany
2009-2011	Research Associate/Sub-Group Leader Department of Biological and Environmental Engineering, Cornell University, Ithaca, NY, USA
2007-2008	Post-Doc, Washington University in St. Louis, USA
2004-2006	PhD Studies, University of Greifswald, Germany
1999-2004	Diploma Studies in Biochemistry University of Greifswald

Awards · Appointments · Scientific Activities

Since 2021	Ombudsperson at the HKI
2019	ERC Consolidator Grant “e-Microbe“
2017	f-Cell Award for innovative fuel cell technology for the BMBF-funded project TexKoMBZ
Since 2014	Representative of the International Society for Microbial Electrochemistry and Technology, ISMET
2004-2006	Fellowship of the Fond der Chemischen Industrie

Topics

Bioprocess intensification

Microbial bioelectrochemistry

ToPIS

ESCAPE

Microverse

InfectoOptics-VersaDrop

e-MICROBe (ERC)

Publications

Harnisch F, Deutzmann JS, Boto ST, Rosenbaum MA (2024) Microbial electrosynthesis: opportunities for microbial pure cultures. *Trends Biotechnol* ,

Details

PubMed
OPEN ACCESS
PAPER

Boto ST, Bardl B, Harnisch F, Rosenbaum MA (2023) Microbial electrosynthesis with *Clostridium ljungdahlii* benefits from hydrogen electron mediation and permits a greater variety of products.

Green Chem 25(11), 4375-4386.

Details



Franco A, Chukwubuikem A, Meiners C, Rosenbaum MA (2023) Exploring phenazine electron transfer interaction with elements of the respiratory pathways of *Pseudomonas putida* and *Pseudomonas aeruginosa*. *Bioelectrochemistry* 157, 108636.

Details



Munser AS, Trost M, Schröder S, Graf M, Rosenbaum MA, Tünnermann A (2023) Analysis of very low bacterial counts in small sample volumes using angle-resolved light scattering. *Appl Opt* 62(2), 411-418.

Details



Pourmasoumi F,* Hengoju S,* Beck K, Stephan P, Klopfleisch L, Hoernke M, Rosenbaum MA, Kries H (2023) Analysing megasynthetase mutants at high throughput using droplet microfluidics. *Chembiochem* 24(24), e202300680.

Details

Yang Z, Qiao Y, Konakalla NC, Strøbech E, Harris P, Peschel G, Agler-Rosenbaum M, Weber T, Andreasson E, Ding L (2023) Streptomyces alleviate abiotic stress in plant by producing pteridic acids. *Nat Commun* 14(1), 7398.

Details

Abdollahi M, Al Sbei S, Rosenbaum MA, Harnisch F (2022) The oxygen dilemma: The challenge of the anode reaction for microbial electrosynthesis from CO2. *Front Microbiol* 13, 947550. (Review)

Details

Finger M, Palacio-Barrera AM, Richter P, Schlembach I, Büchs J, Rosenbaum MA (2022) Tunable population dynamics in a synthetic filamentous coculture. *MicrobiologyOpen* 11(5), e1324.

Details



Finger M, Sentek F, Hartmann L, Palacio-Barrera AM, Schlembach I, Rosenbaum MA, Büchs J (2022) Insights into *Streptomyces coelicolor* A3(2) growth and pigment formation with high-throughput online monitoring. *Eng Life Sci* 23(1), e2100151.

Details



Franco A, Elbahnasy M, Rosenbaum MA (2022) Screening of natural phenazine producers for electroactivity in bioelectrochemical systems. *Microb Biotechnol* 16(3), 579-594.

Details



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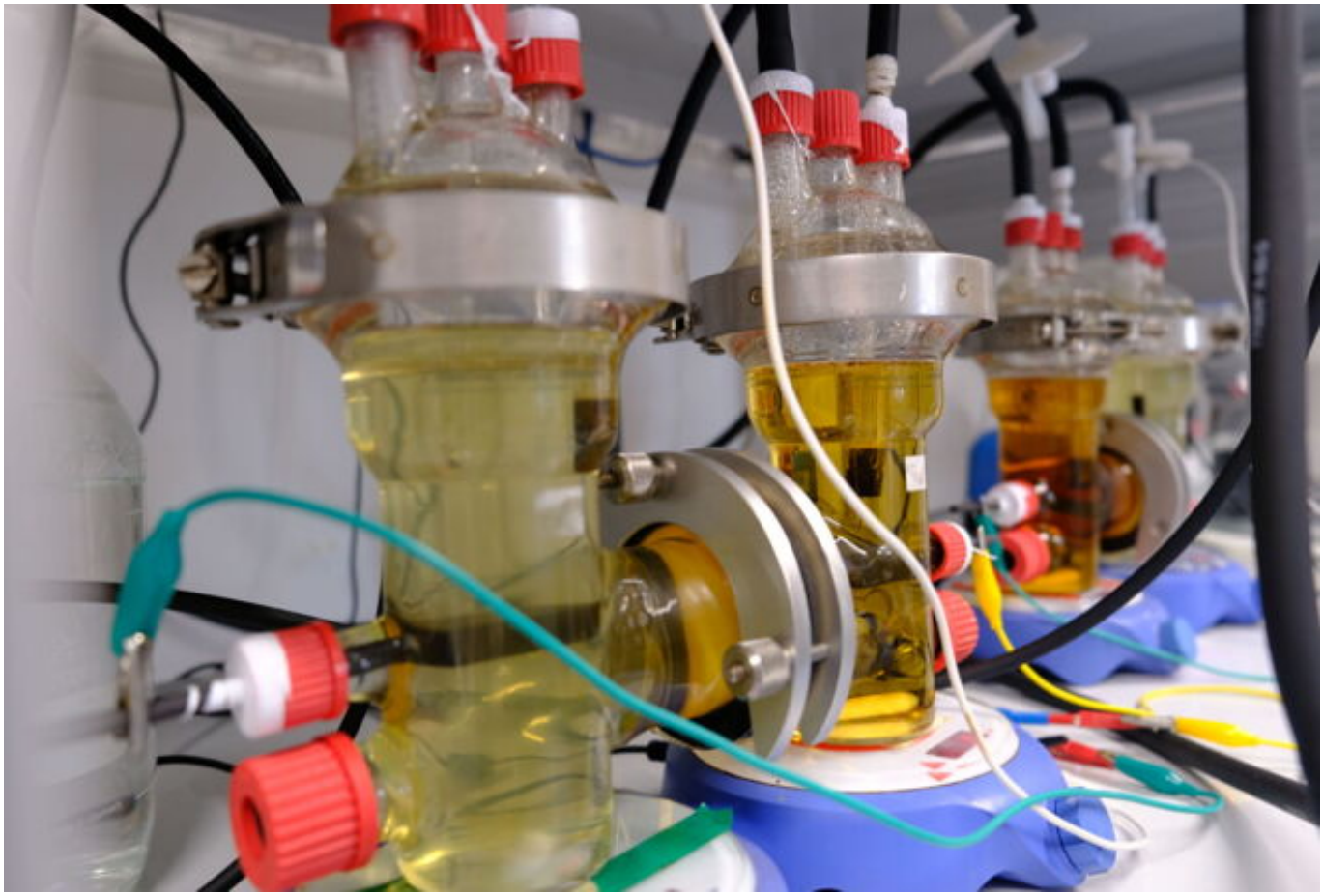
Publication list as PDF

Teachings

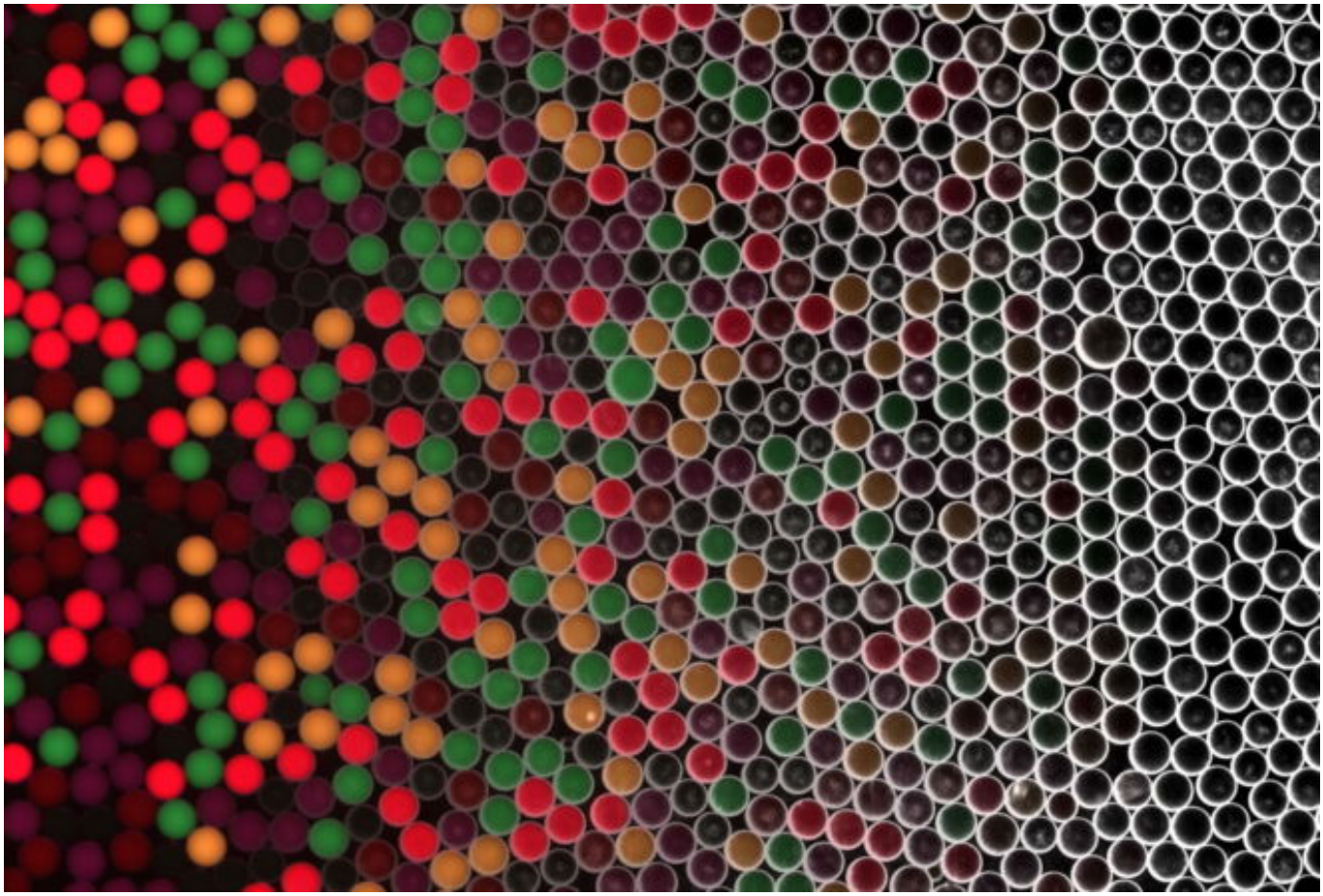
Lecture Biotechnologie/Bioverfahrenstechnik (BBC3.A13, MCBW7) Prof. Dr. Miriam Agler-Rosenbaum Details

Lecture Biotechnologie - Mikrobielle Bioelektrochemie (MMB010) Prof. Dr. Miriam Agler-Rosenbaum Details

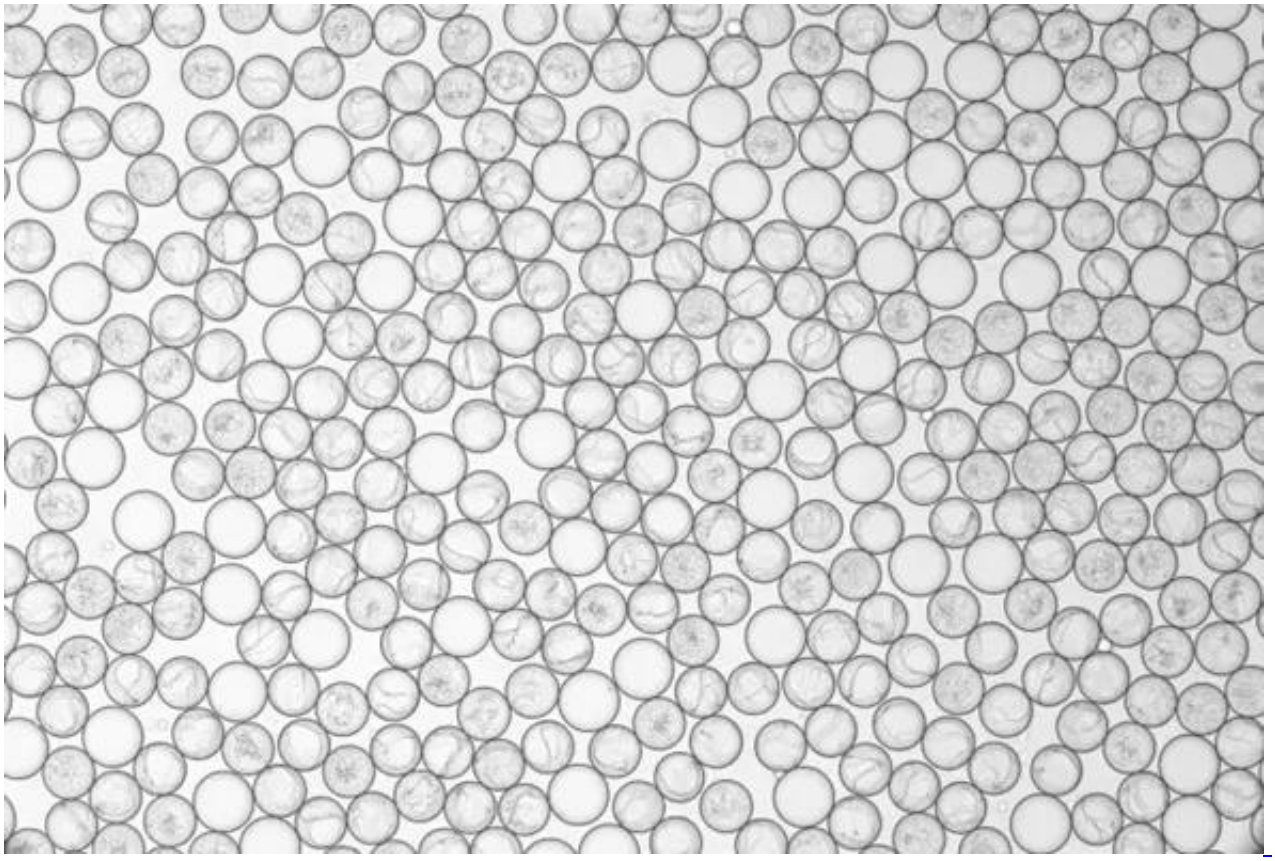
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