

Publications

Ott F, Samimi A, Hengoju S, Meyer-Zedler T, Schmitt M, Rosenbaum MA, Popp J (2026) Automated imaging of cultured bacteria in picoliter droplets by coherent anti-stokes raman scattering and two-photon excited fluorescence microscopy. *J Raman Spectrosc* , 1-10.

Graf M, Sarkar A, Svensson CM, Munser AS, Schröder S, Müller E, Hengoju S, Figge MT, Rosenbaum MA (2025) Multiplexed, rapid phenotypic antibiotic susceptibility testing based on angle-resolved light scattering imaging of microfluidic droplets. *J Adv Res S2090-1232(25)*, 00751-9.

Graf M^{*}, Sarkar A^{*}, Svensson CM, Munser AS, Schröder S, Hengoju S, Rosenbaum MA[#], Figge MT[#] (2025) Rapid detection of microbial antibiotic susceptibility via deep learning supported analysis of angle-resolved scattered-light images of picoliter droplet cultivations. *Sens Actuators B Chem* 424, 136866.

Hengoju S, Abdissa K, Boto ST, Samimi A, Martin K, Jacobsen ID, Rosenbaum MA (2025) A droplet microfluidic strategy for cultivation, investigation, and high-throughput isolation of mouse gut microbiome bacteria. *Appl Environ Microbiol* 91(8), e0069525.

Samimi A, Hengoju S, Martin K, Rosenbaum MA (2025) Advancing droplet-based microbiological assays: optofluidic detection meets multiplexed droplet generation. *Analyst* 150(14), 3137-3146.

Man DKW, Hermans SM, Taubert M, Garcia SL, Hengoju S, Küsel K, Rosenbaum MA (2024) Enrichment of different taxa of the enigmatic candidate phyla radiation bacteria using a novel picolitre droplet technique. *ISME Communications* 4(1), ycae080.

Samimi A, Hengoju S, Rosenbaum MA (2024) Combinatorial sample preparation platform for droplet-based applications in microbiology. *Sens Actuators B Chem* 417,

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Weber T, Hengoju S, Samimi A, Roth M, Tovar M, Rosenbaum MA (2022) Recovery and isolation of individual microfluidic picoliter droplets by triggered deposition. *Sens Actuators B Chem* 369, 132289.

Hengoju S, Shvydkiv O, Tovar M, Roth M, Rosenbaum MA (2021) Advantages of optical fibers for facile and enhanced detection in droplet microfluidics. *Biosens Bioelectron* 200, 113910. (Review)

Kästner B, Hengoju S, Svensson CM, Figge MT, Rosenbaum MA (2021) Mit Tropfenmikrofluidik zu Hochgeschwindigkeits-Biotechnologie. *BIOspektrum* 27(3), 260-262. (Review)

Hengoju S, Wohlfeil S, Munser AS, Shvydkiv O, Boehme S, Beckert E, Tovar M, Roth M, Rosenbaum MA (2020) Optofluidic detection setup for multi-parametric analysis of microbiological samples in droplets. *Biomicrofluidics* 14(2), 024109.

Tovar M, Hengoju S, Weber T, Mahler L, Choudhary M, Becker T, Roth M (2019) One sensor for multiple colors: Fluorescence analysis of microdroplets in microbiological screenings by frequency-

division multiplexing. *Anal Chem* 91(4), 3055-3061.

Tovar M, Weber T, Hengoju S, Lovera A, Munser AS, Shvydkiv O, Roth M (2018) 3D-glass molds for facile production of complex droplet microfluidic chips. *Biomicrofluidics* 12(2), 024115.

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