

Can 3D printing bring droplet microfluidics to every lab? - A systematic review

Gyimah, Nafisat; Scheler, Ott; Rang, Toomas; Pardy, Tamas Micromachines 2021 / art. 339 <https://doi.org/10.3390/mi12030339>
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Closed-loop droplet size control in microfluidics = Suletud ahelaga tilkade suuruse juhtimine mikrofluidikas

Gyimah, Nafisat 2024 <https://digikogu.taltech.ee/et/Item/c4a0c9de-83e5-41ff-bdcf-24ba61182d1f> https://www.ester.ee/record=b5698980*est
<https://doi.org/10.23658/taltech.47/2024>

CogniFlow: integrated modular system for automated droplet microfluidic bioanalysis

Jõemaa, Rauno; Afrin, Fariha; Gyimah, Nafisat; Ashraf, Kanwal; Pärnamets, Kaiser; Giese, Lucas; Rocancourt, Mathieu; Pardy, Tamas EUROSENSORS XXXVI : abstract book 2024 / PT6.188, p. 453-454 <https://doi.org/10.5162/EUROSENSORSXXXVI/PT6.188>

Cogniflow-drop : integrated modular system for automated generation of droplets in microfluidic applications

Jõemaa, Rauno; Gyimah, Nafisat; Ashraf, Kanwal; Pärnamets, Kaiser; Zaft, Alexander; Scheler, Ott; Rang, Toomas; Pardy, Tamas IEEE Access 2023 / p. 104905-104929 <https://doi.org/10.1109/ACCESS.2023.3316726> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Compact empirical model for droplet generation in a Lab-on-Chip cytometry system

Pärnamets, Kaiser; Udal, Andres; Koel, Ants; Pardy, Tamas; Gyimah, Nafisat; Rang, Toomas IEEE Access 2022 / p. 127708-127717 <https://doi.org/10.1109/ACCESS.2022.3226623> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Deep reinforcement learning-based digital twin for droplet microfluidics control

Gyimah, Nafisat; Scheler, Ott; Rang, Toomas; Pardy, Tamas Physics of Fluids 2023 / art. 082020 <https://doi.org/10.1063/5.0159981>
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Digital twin for controlled generation of water-in-oil microdroplets with required size

Gyimah, Nafisat; Scheler, Ott; Rang, Toomas; Pardy, Tamas 2022 23rd International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems (EuroSimE), 25-27 April 2022, St Julian, Malta : proceedings 2022 / p. 85-91 <https://doi.org/10.1109/EuroSimE54907.2022.9758876>

PID controller tuning optimization using genetic algorithm for droplet size control in microfluidics

Gyimah, Nafisat; Jõemaa, Rauno; Pärnamets, Kaiser; Scheler, Ott; Rang, Toomas; Pardy, Tamas 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 6 p <https://doi.org/10.1109/BEC56180.2022.9935596>

Three-dimensional finite element modelling of chemical environment in droplet-based microfluidic systems for drug therapy applications

Szomor, Zsombor; Gyimah, Nafisat; Pardy, Tamas; Fürjes, Peter Physics of fluids 2025 / art. 072045
<https://doi.org/10.1063/5.0275809>

3D finite element modelling of mixing phenomena in droplet-based microfluidic systems

Szomor, Zsombor; Gyimah, Nafisat; Fürjes, Peter; Pardy, Tamas 2024 19th Biennial Baltic Electronics Conference (BEC) 2024 / 4 p
<https://doi.org/10.1109/BEC61458.2024.10737975> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)