

### **Binary RuO<sub>2</sub>–CuO electrodes outperform RuO<sub>2</sub> electrodes in measuring the pH in food samples**

**Lazouskaya, Maryna; Vetik, Iuliia;** Tamm, Martti; Uppuluri, Kiranmai; **Scheler, Ott** ACS omega 2023 / p. 13275-13284

<https://doi.org/10.1021/acsomega.3c00538> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **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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### **Cellprofiler is a fit tool for droplet digital image analysis**

**Bartkova, Simona; Vendelin, Marko; Pata, Pille; Scheler, Ott** 23rd International Conference on Miniaturized Systems for Chemistry and Life Sciences (MicroTAS 2019) Basel, Switzerland, 27 – 31 October 2019 2020 / art. 163704, p. 1644-1645

<https://doi.org/10.1101/811869>

### **Cleaning procedure for the screen-printed RuO<sub>2</sub> pH electrodes**

**Lazouskaya, Maryna; Vetik, Iuliia;** Uppuluri, Kiranmai; Razmi, Nasrin; **Scheler, Ott** IEEE Sensors 2022 : Dallas, Texas, USA : 30 October 2022 - 02 November 2022 : Sensors 2022 conference proceedings 2022 / 4 p. : ill

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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://www.ester.ee/record=b5698980*est)

<https://doi.org/10.23658/taltech.47/2024>

### **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](#)

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### **A COST Action on microbial responses to low pH : developing links and sharing resources across the academic-industrial divide**

Azizi, Tamir; Carvalho De Araujo, Laurine; Cetecioglu, Zeynep; Clancy, Aisha J.; Feger, Marie L.; Liran, Oded; O'Byrne, Conor;

**Sanka, Immanuel; Scheler, Ott;** Sedlakova-Kadukova, Jana; Ziv, Carmit; De Biase, Daniela; Lund, Peter A. New biotechnology

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### **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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### **Development of a transferable microfluidic droplet generator = Ülekantava mikrovedelik-tilkade generaatori arendus**

**Jõemaa, Rauno** 2024 [https://www.ester.ee/record=b5698969\\*est](https://www.ester.ee/record=b5698969*est) <https://doi.org/10.23658/taltech.46/2024>

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### **Digital twin for controlled generation of water-in-oil microdroplets with required size**

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### **Direct droplet digital PCR (dddPCR) for species specific, accurate and precise quantification of bacteria in mixed samples**

Pacocha, Natalia; **Scheler, Ott;** Nowak, Mikolaj Marcin Analytical methods 2019 / p. 5655–5738 : ill <https://doi.org/10.1039/c9ay01874c>

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### **Droplet-based digital antibiotic susceptibility screen reveals singlecell clonal heteroresistance in an isogenic bacterial population**

**Scheler, Ott;** Makuch, Karol; Debski, Pawel R.; **Smolander, Olli-Pekka** Scientific reports 2020 / art. 3282, 8 p. : ill

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### **Droplet-based technology for studying the phenotypic effect of microplastics on antimicrobial resistance**

**Bartkova, Simona; Sulp, Fenella Lucia; Sanka, Immanuel; Pata, Pille; Scheler, Ott** Proceedings 2023 / art. 41  
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#### **A dual colour FISH method for routine validation of sexed Bos taurus semen**

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#### **Front-face fluorimeter for the determination of cutting time of cheese curd**

**Lazouskaya, Maryna**; Stulova, Irina; Sõrmus, Aavo; **Scheler, Ott**; Tiisma, Kalle; Vinter, Toomas; Loov, Roman; Tamm, Martti Foods 2021 / art. 576, 13 p <https://doi.org/10.3390/foods10030576> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **A Guide to biodetection in droplets**

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**Saar-Abroi, Merili**; Lindpere, Karoliine; Olman, Triini; Sulp, Fenella Lucia; **Sanka, Immanuel; Bartkova, Simona; Scheler, Ott** bioRxiv 2024 / 6 p. <https://doi.org/10.1101/2024.09.24.613170>

#### **High-throughput pipeline for polydisperse droplet analysis**

**Sanka, Immanuel; Bartkova, Simona; Pata, Pille; Smolander, Olli-Pekka; Scheler, Ott** MicroTAS 2021 - 25th International Conference on Miniaturized Systems for Chemistry and Life Sciences 2021 / p. 563-564  
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Atasoy, M.; **Bartkova, Simona**; Cetecioglu-Gürol, Z.; Mira, N.; O'Byrne, C.; Perez-Rodriguez, F.; Possas, A.; **Scheler, Ott**; Sedlakova-Kadukova, J.; Sinčák, M.; **Steiger, M.**; Ziv, C.; Lund, P. A. FEMS microbiology reviews 2024 / art. fue015, 41 p. : ill <https://doi.org/10.1093/femsre/fue015> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Microfluidic production, stability and loading of synthetic giant unilamellar vesicles**

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#### **Microfluidic screening of antibiotic susceptibility at a single-cell level shows the inoculum effect of cefotaxime on: E. coli**

Postek, Witold; Gargulinski, Pawel; **Scheler, Ott**; Kaminski, Tomasz S.; Garstecki, Piotr Lab on a Chip 2018 / p. 3668 - 3677  
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#### **Nafion as a protective membrane for screen-printed pH-sensitive ruthenium oxide electrodes**

**Lazouskaya, Maryna; Tamm, Martti; Scheler, Ott**; Uppuluri, Kiranmai; Zaraska, Krzysztof 2020 17th Biennial Baltic electronics conference, Tallinn, Estonia, October 6-8, 2020 : proceedings 2020 / 4 p. : ill <https://doi.org/10.1109/BEC49624.2020.9276822>

#### **Nafion protective membrane enables using ruthenium oxide electrodes for pH measurement in milk**

**Lazouskaya, Maryna; Scheler, Ott; Mikli, Valdek**; Uppuluri, Kiranmai; Zaraska, Krzysztof; Tamm, Martti Journal of The Electrochemical Society 2021 / art. 107511, 12 p. : ill <https://doi.org/10.1149/1945-7111/ac2d3c> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Optical detection methods for high-throughput fluorescent droplet microflow cytometry**

**Pärnamets, Kaiser; Pardy, Tamas; Koel, Ants; Rang, Toomas; Scheler, Ott; Le Moullec, Yannick; Afrin, Fariha** Micromachines 2021 / art. 345, 20 p. : ill <https://doi.org/10.3390/mi12030345> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **Physicochemical Properties Predict Retention of Antibiotics in Water-in-Oil Droplets**

Ruszczak, Artur; Jankowski, Pawel; Vasantham, Shreyas K.; **Scheler, Ott**; Garstecki, Piotr Analytical chemistry 2023 / p. 1574-1581 : ill <https://doi.org/10.1021/acs.analchem.2c04644> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

#### **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>

### **Replacement of milk fat by rapeseed oil stabilised emulsion in commercial yogurt**

Kasprzak, Mirosław M.; Sady, Marek; Kruk, Joanna; **Bartkova, Simona**; **Sanka, Immanuel**; **Scheler, Ott**; Jamroz, Ewelina; Berski, Wiktor; Onacik-Guer, Sylwia; Zajac, Marzena; Domagala, Jacek; Ptasznik, Stanisław; Okpala, Charles Odilichukwu R.; Tkaczewska, Joanna PeerJ 2023 / art. e16441 <https://doi.org/10.7717/peerj.16441> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **Reusability of RuO<sub>2</sub>-Nafion electrodes, suitable for potentiometric pH measurement**

**Lazouskaya, Maryna**; **Scheler, Ott**; Uppuluri, Kiranmai; Zaraska, Krzysztof; Tamm, Martti 2022 IEEE International Conference on Flexible and Printable Sensors and Systems (FLEPS), Vienna, Austria, 2022 / p. 1-4  
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### **RUO<sub>2</sub>-Nafion electrodes for pH measurement in milk**

**Lazouskaya, Maryna**; **Scheler, Ott**; Uppuluri, Kiranmai; Zaraska, Krzysztof; Tamm, Martti 14th Baltic Conference on Food Science and Technology "Sustainable Food for Conscious Consumer" : FoodBalt 2021 : book of abstracts 2021 / p. 131

### **Screen-printed pH sensors based on ruthenium(IV) oxide for measurement in food samples = Ruteenium(IV) oksiidil põhinevad siiditrükiga pH-andurid toiduproovide mõõtmiseks**

**Lazouskaya, Maryna** 2023 <https://doi.org/10.23658/taltech.14/2023> <https://digikogu.taltech.ee/et/Item/13a783ac-9372-4e8d-a9de-22930694acd3> [https://www.ester.ee/record=b5553936\\*est](https://www.ester.ee/record=b5553936*est)

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### **Understanding How Microorganisms Respond to Acid pH Is Central to Their Control and Successful Exploitation**

Lund, P.A.; De Biase, Daniela; Liran, Oded; **Scheler, Ott**; Mira, N.P.; Cetecioglu, Zeynep; Fernandez, E.N.; Bover-Cid, S.; Hall, R.; Sauer, M.; O'Byrne, Conor Frontiers in microbiology 2020 / art. 556140, 8 p. : ill <https://doi.org/10.3389/fmicb.2020.556140> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **User-friendly analysis of droplet array images**

**Sanka, Immanuel**; **Bartkova, Simona**; **Pata, Pille**; Ernits, Mart; Meinberg, Monika Merje; Agu, Natali; Aruoja, Villem; **Smolander, Olli-Pekka**; **Scheler, Ott** Analytica chimica acta 2023 / art. 341397 <https://doi.org/10.1016/j.aca.2023.341397> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

### **User-friendly analysis of droplet experiments = Kasutajasõbralik tilga eksperimentide analüüs**

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