Lab on a Chip

Devices and applications at the micro- and nanoscale

rsc.li/loc

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 1473-0197 CODEN LCAHAM 25(1) 1-104 (2025)



Cover See Guorui Zhu *et al.*, pp. 7–15. Image reproduced by permission of Guorui Zhu from *Lab Chip*, 2025, **25**, 7.

PAPERS

7

Dual-drive acoustic micromixer for rapid nucleation and ultrafast growth of perovskite nanoparticles

Zhifang Liu, Yuwen Lu, Wei Tan and Guorui Zhu*



16

Repeated pulses of ultrasound maintain sperm motility

Ali Vafaie, Sahar Shahali, Mohammad Reza Raveshi, Reza Nosrati* and Adrian Neild*





Royal Society of Chemistry approved training courses

Explore your options. Develop your skills. Discover learning that suits you.

Courses in the classroom, the lab, or online

Find something for every stage of your professional development. Search our database by:

- subject area
- location
- event type
- skill level

Members get at least 10% off

Visit rsc.li/cpd-training



PAPERS

28

Stitched textile-based microfluidics for wearable devices

Martin Hanze, Andrew Piper* and Mahiar Max Hamedi*



41

Open Access Article. Published on 17 December 2024. Downloaded on 7/18/2025 11:17:02 PM.

An integrated microfluidic device for sorting of tumor organoids using image recognition

Xingyang Yan, Deng Tan, Lei Yu, Danyu Li, Zhenghao Wang, Weiren Huang and Hongkai Wu*



49

Detecting telomerase activity at the single-cell level using a CRISPR-Cas12a-based chip

Yateng Jiang, Yanping Wang, Wen Luo, Xiaowei Luan, Zhibin Zhang, Yongchun Pan, Bangshun He,* Yanfeng Gao* and Yujun Song*

57

Automated Dynamic Inlet Microfluidics (ADIM) system: cost-effective biaxial nanoliter droplet on demand generation platform and its application in agglutination assays

Abdul Basit Zia* and Ian G. Foulds





PAPERS



Flow cell for high throughput Raman spectroscopy of non-transparent solutions

Filippo Zorzi, Emil Alstrup Jensen, Murat Serhatlioglu, Silvio Bonfadini, Morten Hanefeld Dziegiel, Luigino Criante* and Anders Kristensen

Controlled Au-coated PDMS microwell array for surface-enhanced DNA biochips

Yeongseok Jang and Jonghyun Oh*



Rapid automated production of tubular 3D intestine-on-a-chip with diverse cell types using coaxial bioprinting

Heeju Song, Yeonjin Hong and Hyungseok Lee*

8



3D Intestine-on-a-chip



3D Tubular structure of intestine