

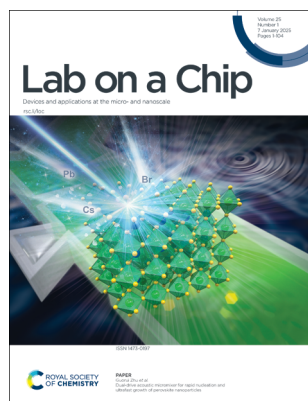
Lab on a Chip

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)



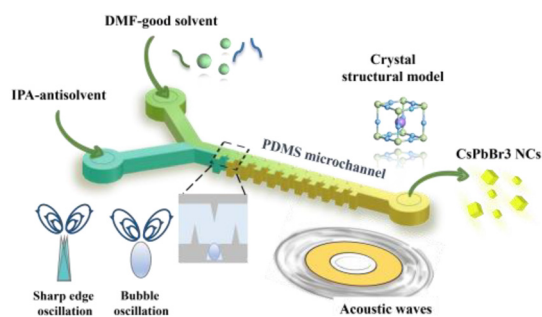
Cover
See Guorui Zhu *et al.*,
pp. 7–15.
Image reproduced by
permission of Guorui Zhu
from *Lab Chip*, 2025, 25, 7.

PAPERS

7

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

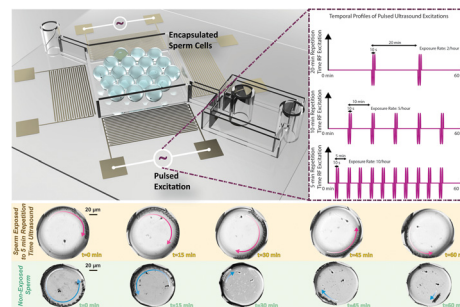
Zhifang Liu, Yuwen Lu, Wei Tan and Guorui Zhu*



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

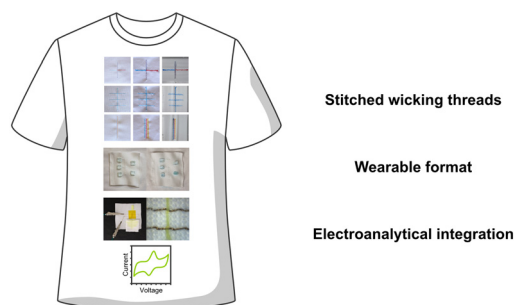
**SAVE
10%**



28

Stitched textile-based microfluidics for wearable devices

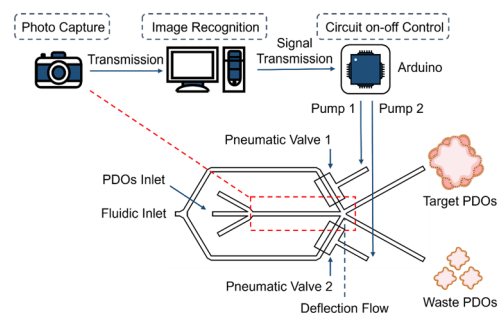
Martin Hanze, Andrew Piper* and Mahiar Max Hamedi*



41

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

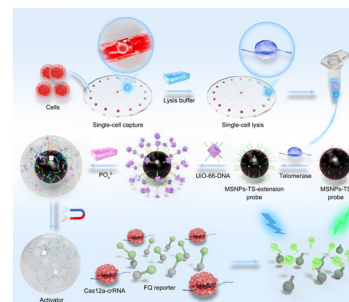
Xingyang Yan, Deng Tan, Lei Yu, Danyu Li, Zhenghao Wang, Weiren Huang and Hongkai Wu*



49

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

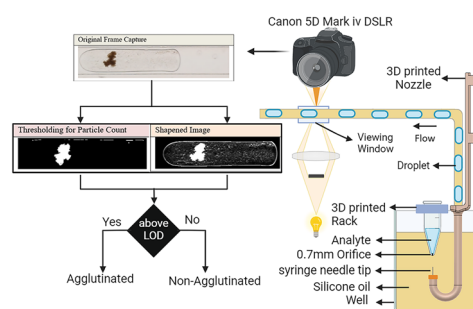
Yateng Jiang, Yanping Wang, Wen Luo, Xiaowei Luan, Zhibin Zhang, Yongchun Pan, Bangshun He,* Yanfeng Gao* and Yujun Song*



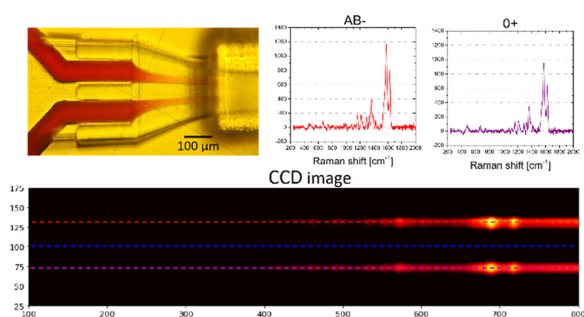
57

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



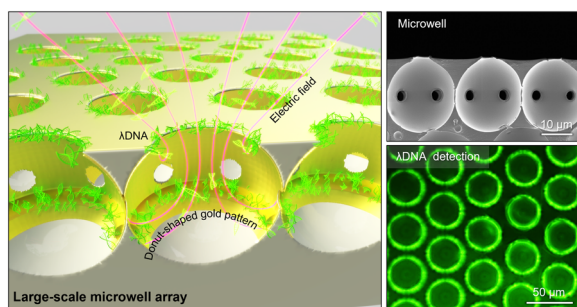
69



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

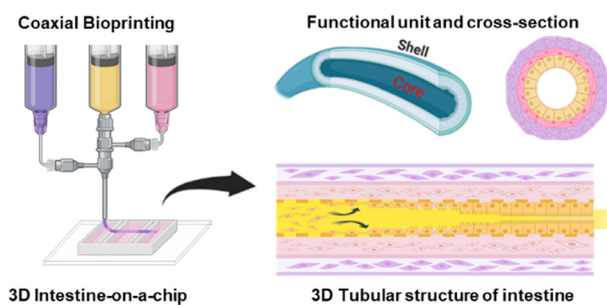
79



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

Yeongseok Jang and Jonghyun Oh*

90



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

Heeju Song, Yeonjin Hong and Hyungseok Lee*

