

Lab on a Chip

Devices and applications at the micro- and nanoscale
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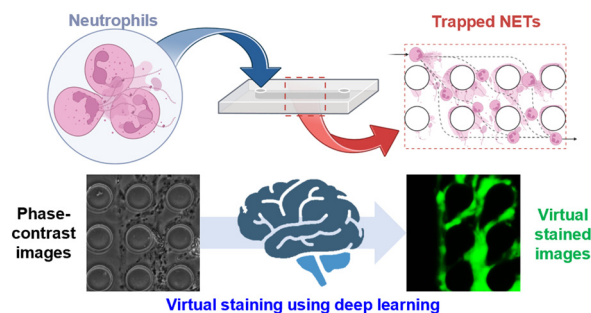


COMMUNICATION

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Label-free virtual staining of neutrophil extracellular traps (NETs) in microfluidics

Chayakorn Petchakup, Siong Onn Wong, Rinkoo Dalan and Han Wei Hou*



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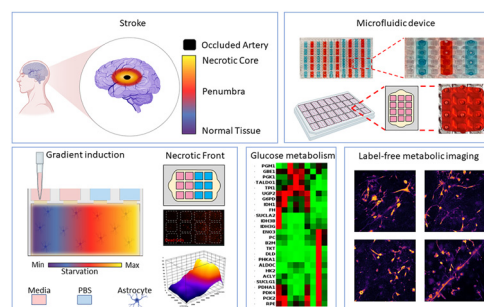
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Microfluidic device with reconfigurable spatial temporal gradients reveals plastic astrocyte response to stroke and reperfusion

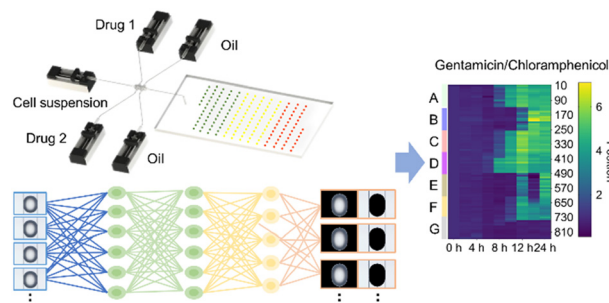
Catherine A. Reed-McBain, Rithvik V. Turaga, Seth R. T. Zima, Sara Abizanda Campo, Jeremiah Riendeau, Emmanuel Contreras Guzman, Terry D. Juang, Duane S. Juang, David W. Hampton, Melissa C. Skala and Jose M. Ayuso*



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Artificial intelligence-accelerated high-throughput screening of antibiotic combinations on a microfluidic combinatorial droplet system

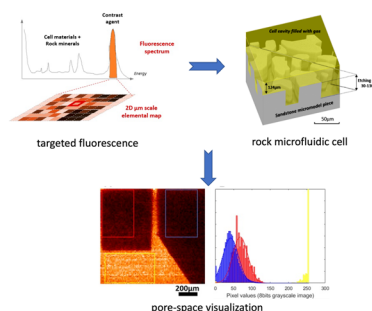
Deyu Yang, Ziming Yu, Mengxin Zheng, Wei Yang, Zhangcai Liu, Jianhua Zhou* and Lu Huang*



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Micro X-ray fluorescence reveals pore space details and spatially-resolved porosity of rock-based microfluidic devices

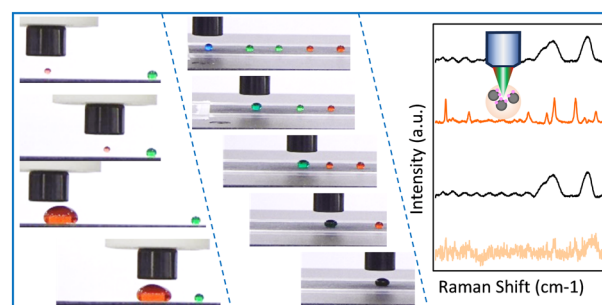
Laura Frouté, Kelly M. Guan, Wenbing Yun, Sylvia J. Y. Lewis, Benjamin D. Stripe, Xiaolin Yang, Alexandre Lapene, Anthony R. Kovscek* and Patrice Creux



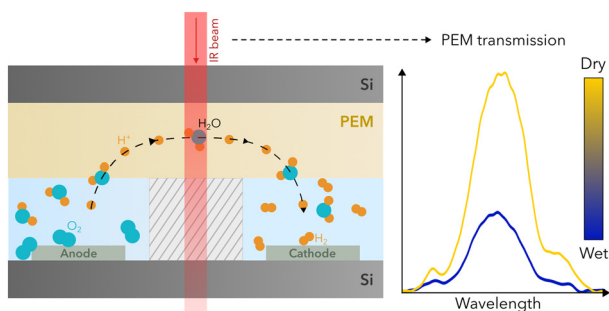
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Contactless acoustic tweezer for droplet manipulation on superhydrophobic surfaces

Tao Luo,* Sirui Liu, Rui Zhou, Chen Zhang, Dongyang Chen, Yi Zhan, Qilin Hu, Xi He, Yu Xie, Zhijie Huan, Wendi Gao, Ruirui Li, Gongfa Yuan, Yancheng Wang and Wei Zhou*



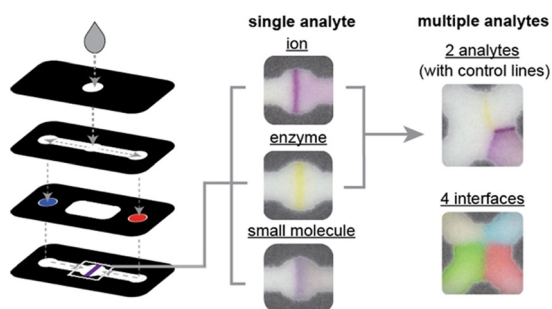
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Probing membrane hydration in microfluidic polymer electrolyte membrane electrolyzers via operando synchrotron Fourier-transform infrared spectroscopy

Kevin Krause, Marine Garcia, Dominique Michau, Gérald Clisson, Brant Billinghamurst, Jean-Luc Battaglia and Stéphane Chevalier*

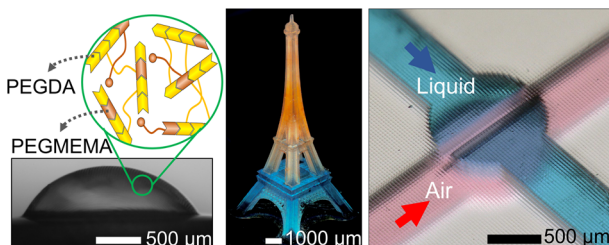
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Generating signals at converging liquid fronts to create line-format readouts of soluble assay products in three-dimensional paper-based devices

Ibrahim H. Abdullah, Daniel J. Wilson, Andrea C. Mora, Rayleigh W. Parker and Charles R. Mace*

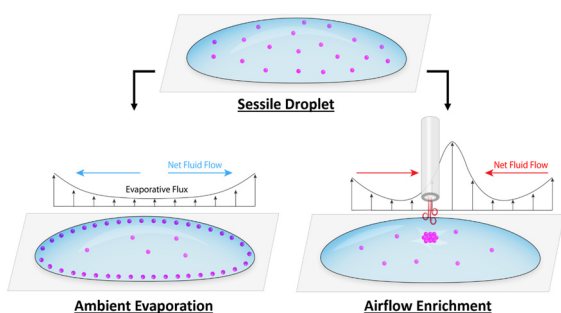
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Tunable resins with PDMS-like elastic modulus for stereolithographic 3D-printing of multimaterial microfluidic actuators

Alireza Ahmadianyazdi,* Isaac J. Miller and Albert Folch

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Sample preconcentration through airjet-induced liquid phase enrichment

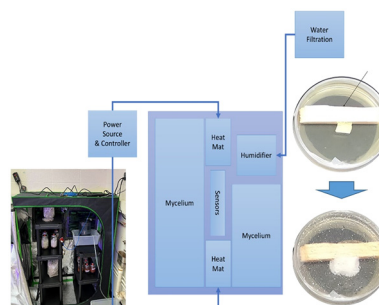
Edward Wang, Louise C. Laurent, Drew A. Hall and Yu-Hwa Lo*



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Design and build a green tent environment for growing and charactering mycelium growth in lab

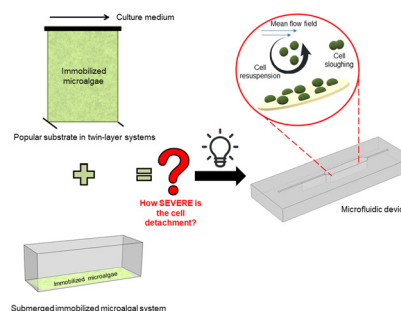
Libin Yang, Ruohan Xu, Anushka Joardar, Michael Amponsah, Nina Sharifi, Bing Dong and Zhao Qin*



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A microscale system for *in situ* investigation of immobilized microalgal cell resistance against liquid flow in the early inoculation stage

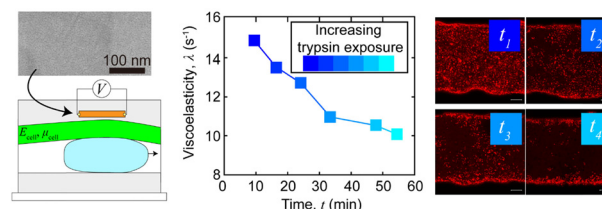
C. Y. Tong, Huai Z. Li* and C. J. C. Derek*



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In situ measurement of viscoelastic properties of cellular monolayers via graphene strain sensing of elastohydrodynamic phenomena

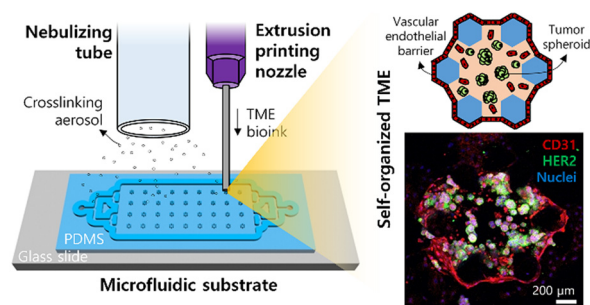
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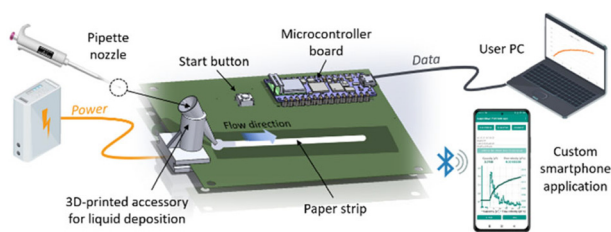
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Fabrication of a self-assembled and vascularized tumor array via bioprinting on a microfluidic chip

Gihyun Lee, Soo Jee Kim and Je-Kyun Park*



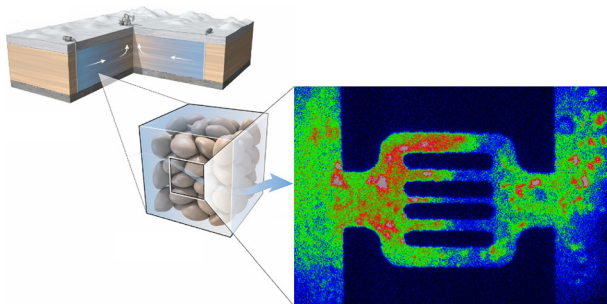
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Capacitive platform for real-time wireless monitoring of liquid wicking in a paper strip

Isidoro Ruiz-García, Pablo Escobedo, Celia E. Ramos-Lorente, Miguel M. Erenas, Luis F. Capitán-Vallvey, Miguel A. Carvajal, Alberto J. Palma* and Nuria López-Ruiz

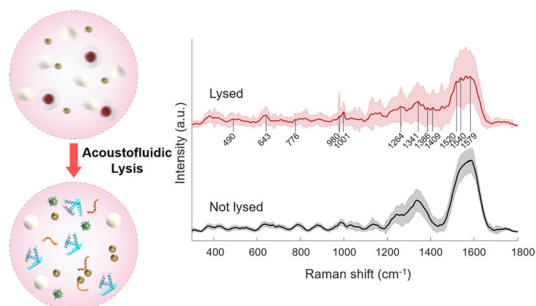
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A single-molecule study on polymer fluid dynamics in porous media

Antonia Sugar, Maged Serag, Ulrich Buttner, Satoshi Habuchi* and Hussein Hoteit*

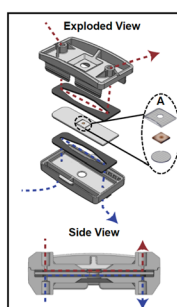
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Acoustofluidic lysis of cancer cells and Raman spectrum profiling

Hyeono Nam, Jong-Eun Park, Waqas Waheed, Anas Alazzam, Hyung Jin Sung* and Jessie S. Jeon*

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Microfluidic organotypic device to test intestinal mucosal barrier permeability *ex vivo*

Amanda E. Cherwin, Hayley N. Templeton, Alexis T. Ehrlich, Brielle H. Patlin, Charles S. Henry* and Stuart A. Tobet*



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Sripadh Gupta Yedire, Imman Isaac Hosseini, Hamed Shieh, Arash Khorrami Jahromi, Tamer AbdelFatah, Mahsa Jalali and Sara Mahshid*

