

Lab on a Chip

Devices and applications at the micro- and nanoscale
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IN THIS ISSUE

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Cover
See Lorena Diéguez, Alar Ainla *et al.*, pp. 4028–4038.
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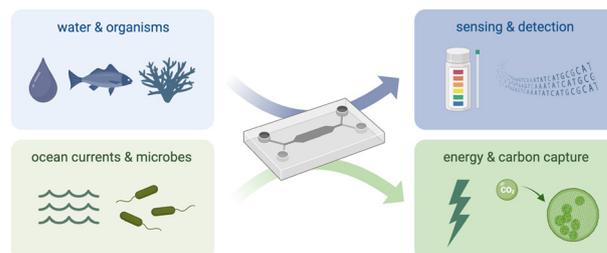
Inside cover
See Jianhan Lin *et al.*, pp. 4039–4049.
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CRITICAL REVIEW

4007

Microfluidics for macrofluidics: addressing marine-ecosystem challenges in an era of climate change

Fangchen Liu, Cyril Deroy and Amy E. Herr*

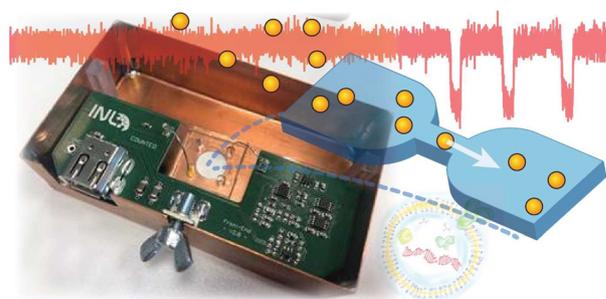


PAPERS

4028

Nanofluidic resistive pulse sensing for characterization of extracellular vesicles

Madalena R. C. Calado, Teresa C. Lage, Daniel A. M. André, Carlos Calaza, Carlos Marques, Carolina Herrero, João Piteira, Lars Montelius, Dmitri Y. Petrovykh, Lorena Diéguez* and Alar Ainla*





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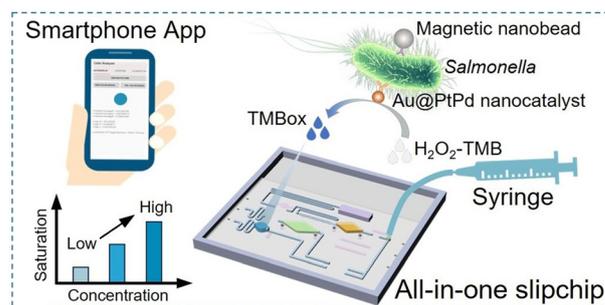
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4039

An all-in-one microfluidic SlipChip for power-free and rapid biosensing of pathogenic bacteria

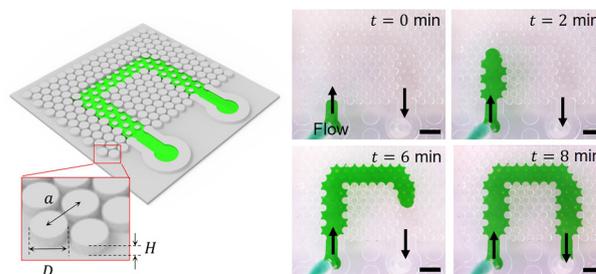
Li Xue, Ming Liao and Jianhan Lin*



4050

PoroFluidics: deterministic fluid control in porous microfluidics

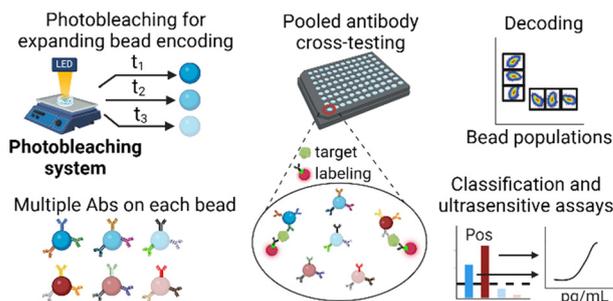
Zhongzheng Wang, Louis Jun Ye Ong, Yixiang Gan, Jean-Michel Pereira, Jun Zhang, Surasak Kasetsirikul, Yi-Chin Toh* and Emilie Sauret*



4060

Efficient discovery of antibody binding pairs using a photobleaching strategy for bead encoding

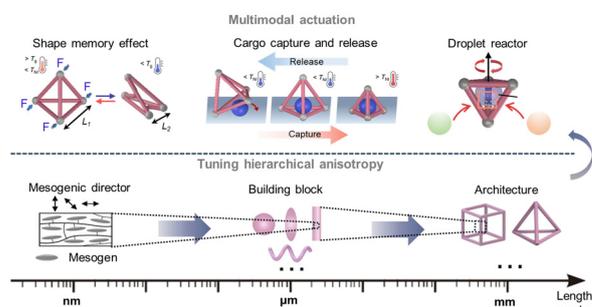
Shira Roth, Tom Ferrante and David R. Walt*



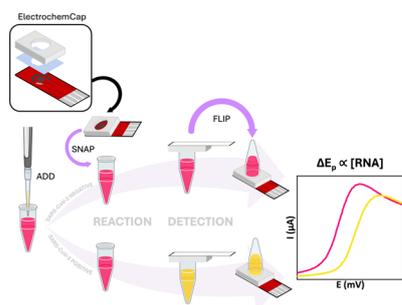
4073

Programming hierarchical anisotropy in microactuators for multimodal actuation

Shiyu Wang, Shucong Li, Wenchang Zhao, Ying Zhou, Liqiu Wang,* Joanna Aizenberg* and Pingan Zhu*



4085



ElectrochemCap: an integrated detection for loop-mediated isothermal amplification reactions

P. Rioboó-Legaspi, E. Costa-Rama* and M. T. Fernández-Abedul*

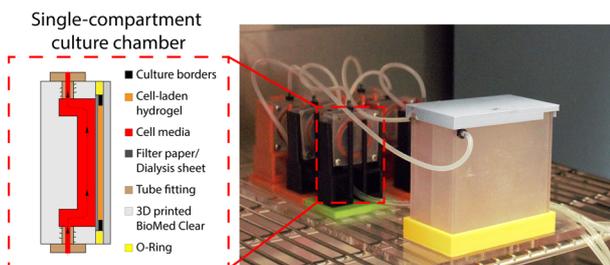
4096



Integration of 3D printed Mg²⁺ potentiometric sensors into microfluidic devices for bioanalysis

Sarah Farahani, Dalton L. Glasco, Manar M. Elhassan, Pedaballi Sireesha and Jeffrey G. Bell*

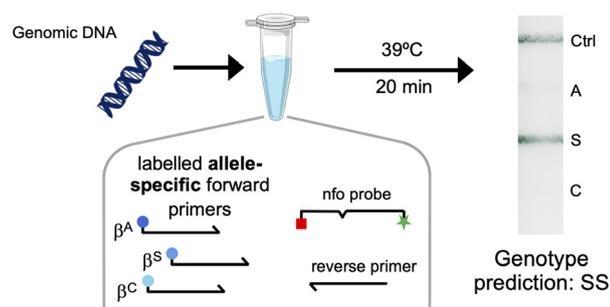
4105



Continuous flow delivery system for the perfusion of scaffold-based 3D cultures

Zachary R. Sitte, Elizabeth E. Karlsson, Haolin Li, Haibo Zhou and Matthew R. Lockett*

4115



A multiplexed, allele-specific recombinase polymerase amplification assay with lateral flow readout for sickle cell disease detection

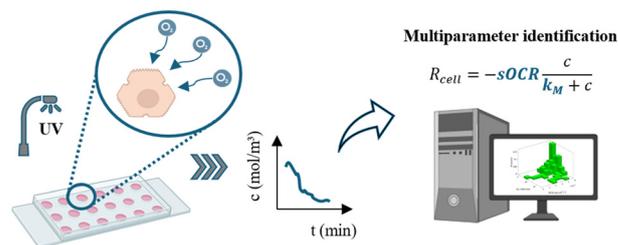
Megan M. Chang, Mary E. Natoli, Alexis F. Wilkinson, Venée N. Tubman, Gladstone E. Airewele and Rebecca R. Richards-Kortum*



4128

Size-related variability of oxygen consumption rates in individual human hepatic cells

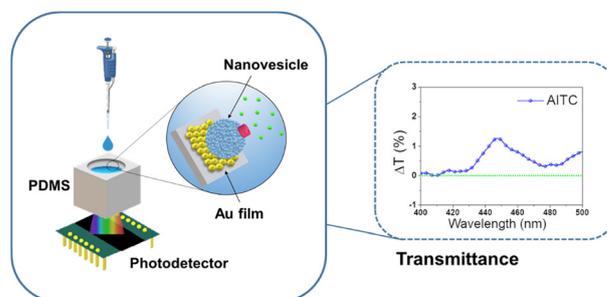
Ermes Botte, Yuan Cui, Chiara Magliaro, Maria Tenje, Klaus Koren, Andrea Rinaldo, Roman Stocker, Lars Behrendt* and Arti Ahluwalia*



4138

Label-free optical detection of calcium ion influx in cell-derived nanovesicles using a conical Au/PDMS biosensor

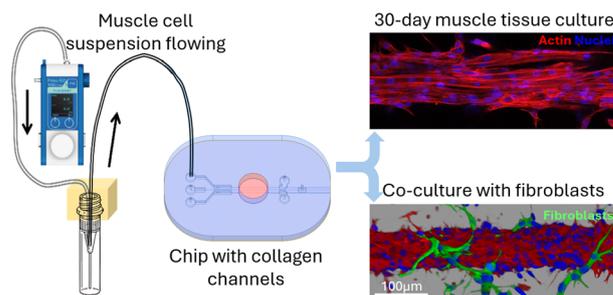
Jisung Kwak, Woochul Kim, Hyerim Cho, Jiyun Han, Sang Jun Sim, Hyun Gyu Song,* Yusin Pak* and Hyun Seok Song*



4147

Studying the impact of geometrical and cellular cues on myogenesis with a skeletal muscle-on-chip

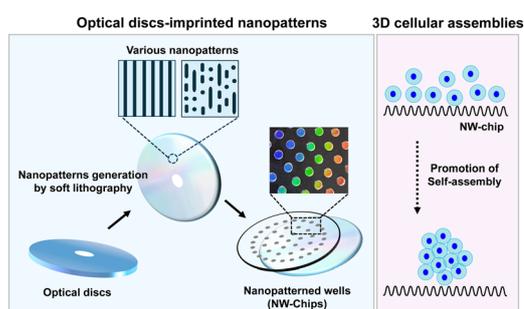
M.-L. Nguyen, N. Demri, B. Lapin, F. Di Federico, G. Gropplero, F. Cayrac, K. Hennig, Edgar R. Gomes, C. Wilhelm, W. Roman and S. Descroix*



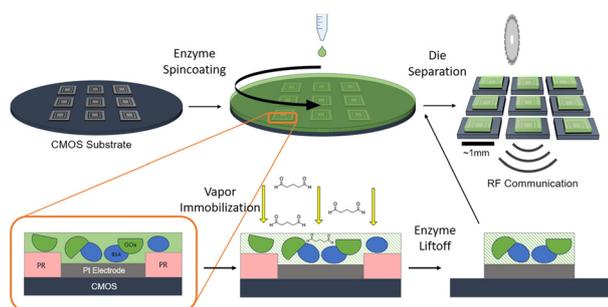
4161

3D cellular self-assembly on optical disc-imprinted nanopatterns

Jeeyeon Lee* and Chwee Teck Lim*



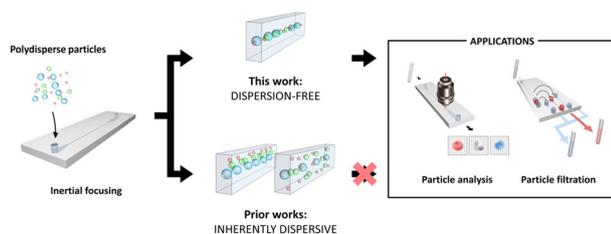
4172



Patterned thin film enzyme electrodes *via* spincoating and glutaraldehyde vapor crosslinking: towards scalable fabrication of integrated sensor-on-CMOS devices

Dvin Adalian,* Xiomi Madero, Samson Chen, Musab Jilani, Richard D. Smith, Songtai Li, Christin Ahlbrecht, Juan Cardenas, Abhinav Agarwal, Azita Emami, Oliver Plettenburg, Peter A. Petillo and Axel Scherer

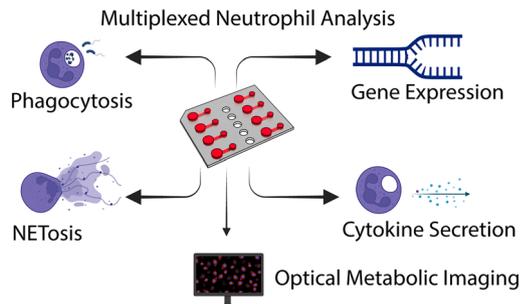
4182



Dispersion-free inertial focusing (DIF) for high-yield polydisperse micro-particle filtration and analysis

Kelvin C. M. Lee,* Bob M. F. Chung, Dickson M. D. Siu, Sam C. K. Ho, Daniel K. H. Ng and Kevin K. Tsia*

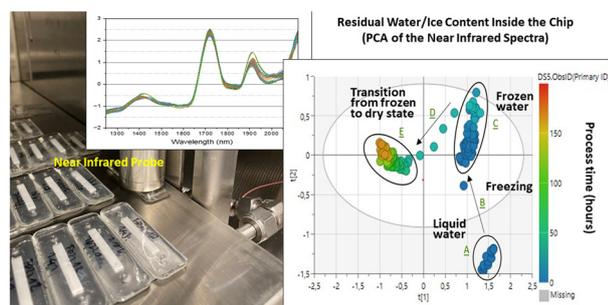
4198



Micro blood analysis technology (μ BAT): multiplexed analysis of neutrophil phenotype and function from microliter whole blood samples

Terry D. Juang, Jeremiah Riendeau, Peter G. Geiger, Rupsa Datta, Marcos Lares, Ravi Chandra Yada, Anne Marie Singh, Christine M. Seroogy, James E. Gern, Melissa C. Skala, David J. Beebe* and Sheena C. Kerr*

4211



Extending the shelf life of HLM chips through freeze-drying of human liver microsomes immobilized onto thiol-ene micropillar arrays

Iiro Rautsola, Markus Haapala, Leo Huttunen, Ossi Korhonen and Tiina Sikanen*

