Lab on a Chip

Micro- & nano- fluidic research for chemistry, physics, biology, & bioengineering

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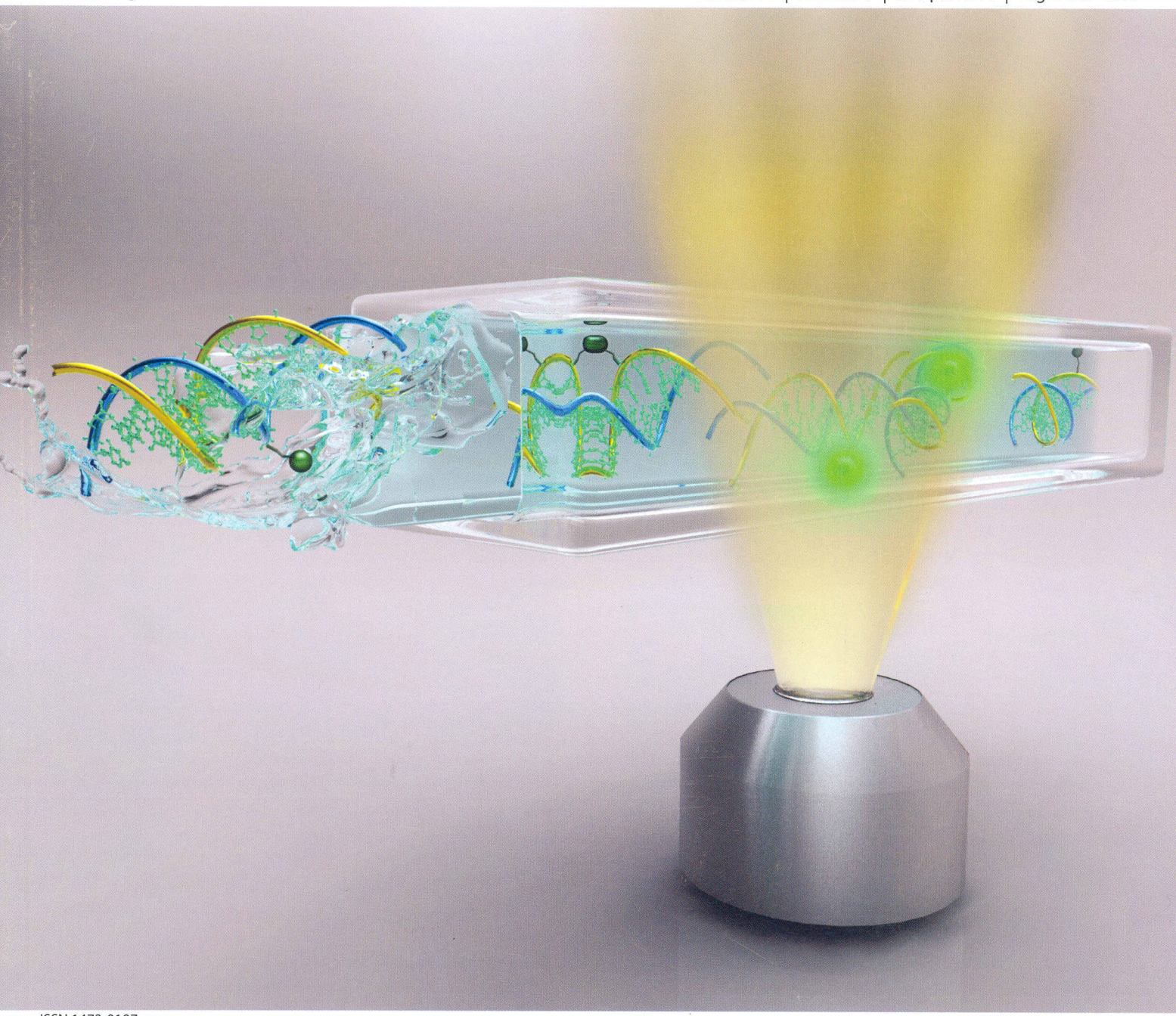

ISSN 1473-0197

RSC Publishing

Napoli *et al.*
Nanofluidic technology for biomolecule applications

Rasooly *et al.*
Immunoassay detection of SEB

Celebrating 10 Years of publishing

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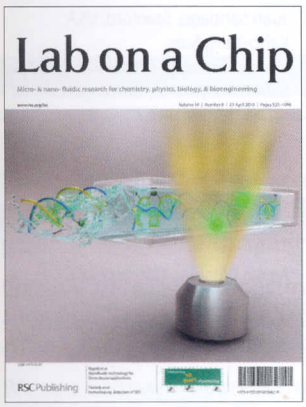


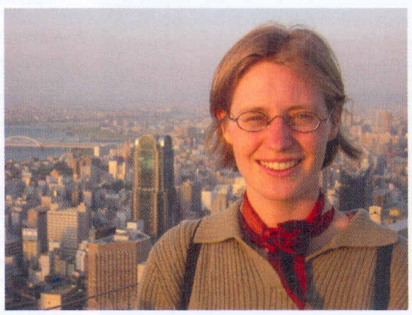
Cover

See Napoli *et al.*, pp. 957–985.
A review is given of the important forces and phenomena in nanofluidics, and their application for the analysis of biomolecules in nanofabricated devices.
Image reproduced by permission of M. Napoli, J. C. T. Eijkel and S. Pennathur from *Lab Chip*, 2010, **10**, 957.

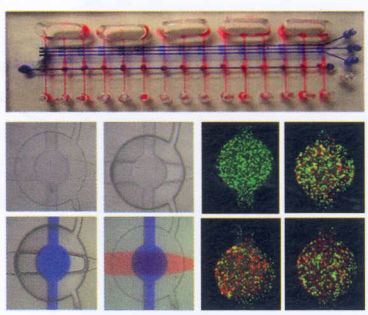
Inside cover

See Gao, Sniadecki *et al.*, pp. 991–998.
Flexible post force sensor used for direct measurement of platelet forces during the clot retraction of a microthrombus.
Image reproduced by permission of Xin M. Liang, Sangyoon J. Han, Jo-Anna Reems, Dayong Gao and Nathan J. Sniadecki from *Lab Chip*, 2010, **10**, 991.

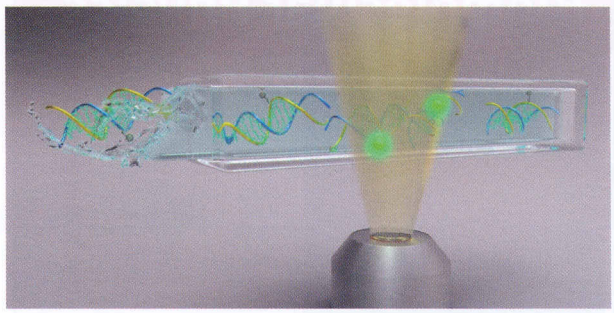
HIGHLIGHT



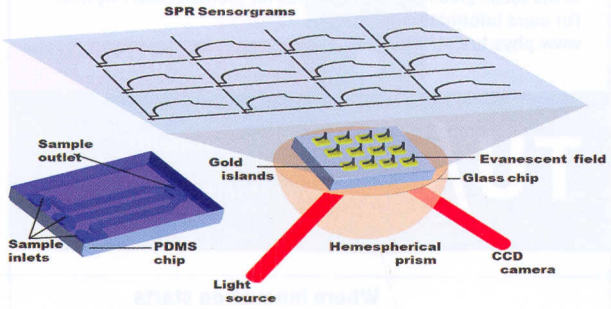
TUTORIAL REVIEW



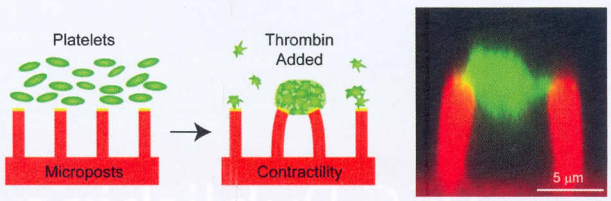
CRITICAL REVIEW

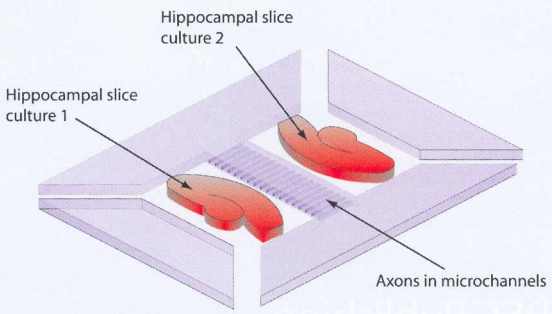


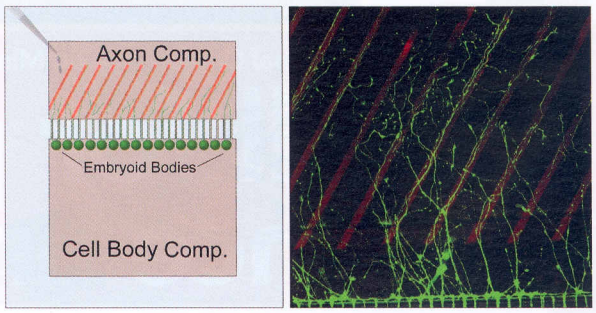
COMMUNICATION

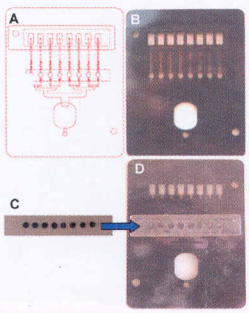


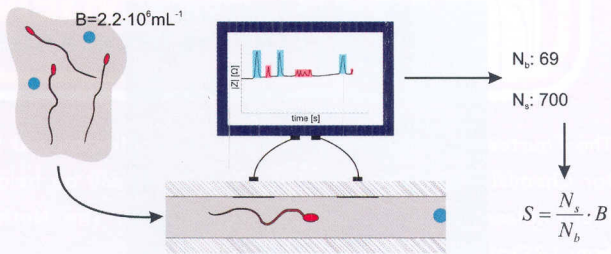
PAPERS

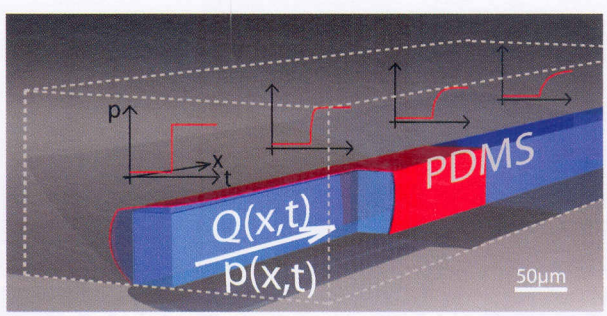


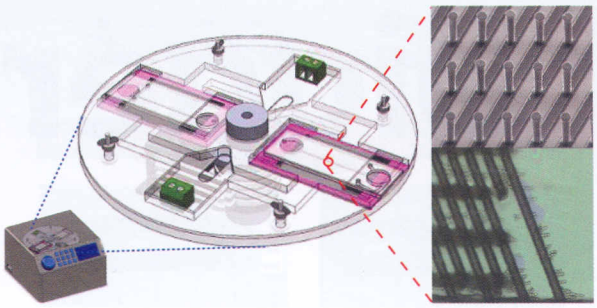


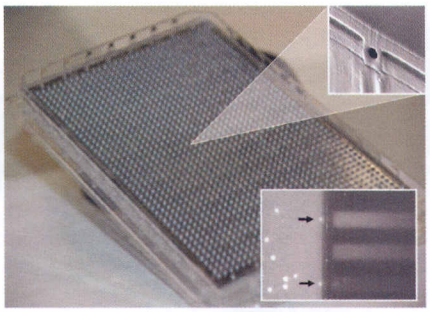


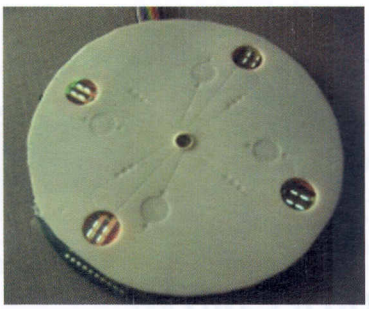


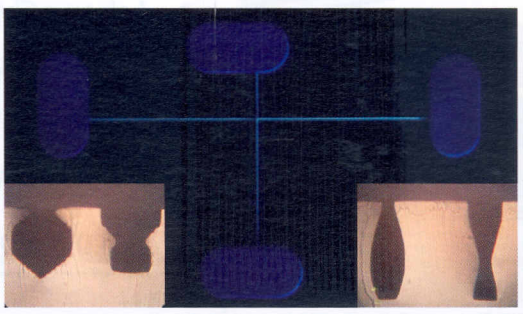










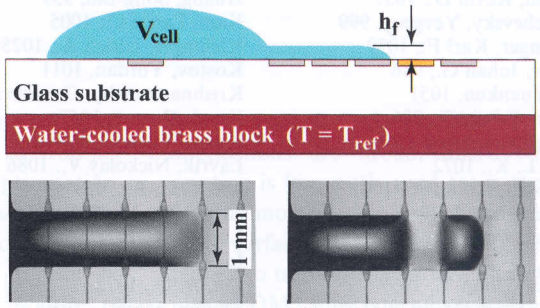


1061

Planar digital nanoliter dispensing system based on thermocapillary actuation

Anton A. Darhuber,* Joseph P. Valentino and Sandra M. Troian

We provide guidelines for design and operation of a planar nanodispensing system based on thermocapillary actuation. Microheaters generate temperature distributions that control liquid flow and trigger droplet formation on demand.

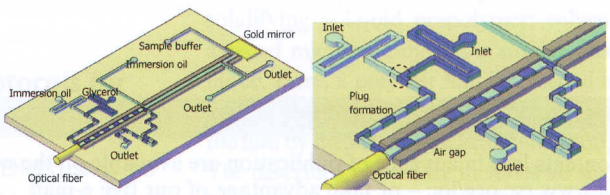


1072

A reconfigurable optofluidic Michelson interferometer using tunable droplet grating

L. K. Chin, A. Q. Liu,* Y. C. Soh, C. S. Lim and C. L. Lin

An optofluidic Michelson interferometer is developed using a tunable droplet grating formed *via* droplet microfluidics.

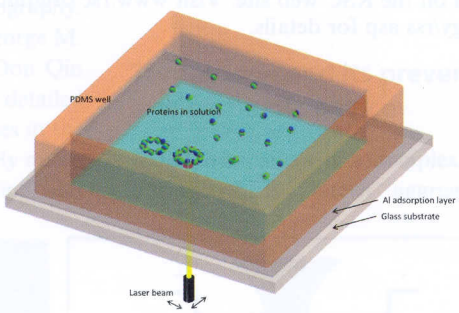


1079

Infrared light induced patterning of proteins on ppNIPAM thermoresponsive thin films: a "protein laser printer"

Xuanhong Cheng,* E. Yegan Erdem, Shoji Takeuchi, Hiroyuki Fujita, Buddy D. Ratner* and Karl F. Böhringer*

A novel method for protein patterning with single micron resolution: the proteins adsorb onto thermoresponsive ppNIPAM film by using a computer-controlled laser beam.



1086

Enclosed pillar arrays integrated on a fluidic platform for on-chip separations and analysis

Nickolay V. Lavrik,* Lisa C. Taylor and Michael J. Sepaniak*

Highly ordered pillar arrays capped with a non-conformal PECVD layer are explored as on-chip separation beds with submicron pores.