Lab on a Chip

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

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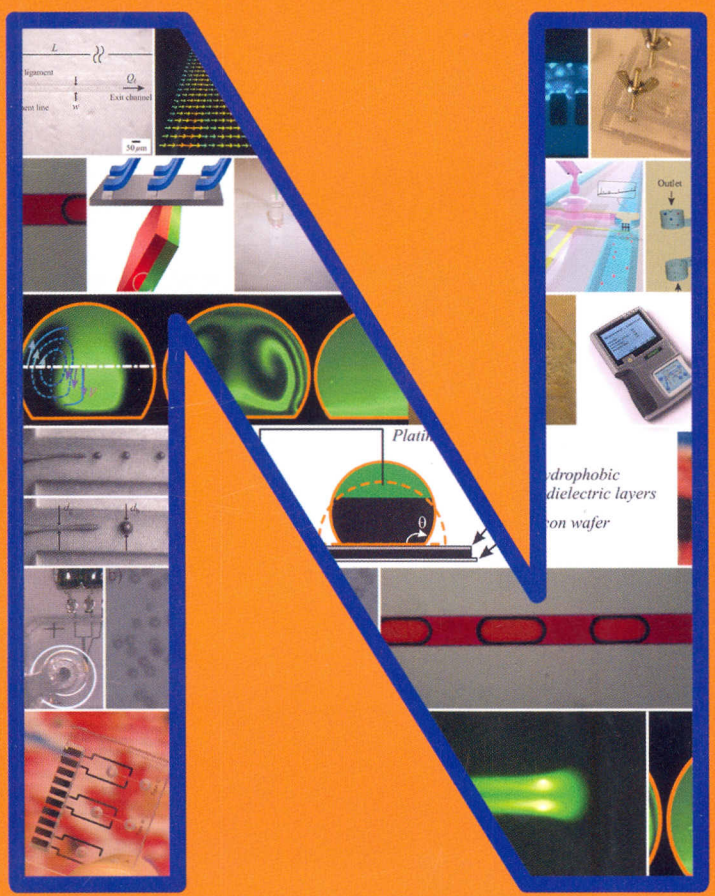

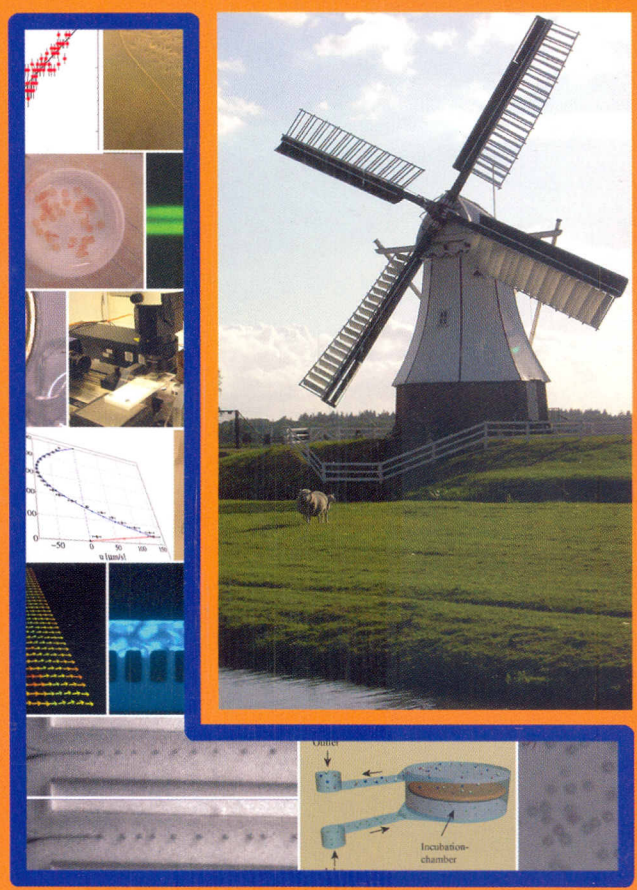

10th Anniversary: Focus on the Netherlands

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EDITORIAL
Sabeth Verpoorte
10th Anniversary Issue: The Netherlands

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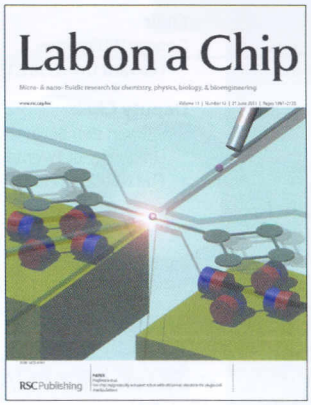
Cover
See Sabeth Verpoorte, pp. 1991–1992. The cover image contains contributions from the authors who have articles in this issue. The image was realized by Sven de Krou and Gert IJsbrand Salentijn (Department of Pharmacy, University of Groningen), based on a concept by Sabeth Verpoorte. Photograph of windmill taken by Maurits van Dijk, Pharmaceutical Analysis, University of Groningen. Image reproduced by permission of Elisabeth Verpoorte from *Lab Chip*, 2011, **11**, 1991.



Inside cover
See Hagiwara *et al.*, pp. 2049–2054.
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THEMED ISSUE: 10TH ANNIVERSARY FOCUS ON THE NETHERLANDS

EDITORIAL

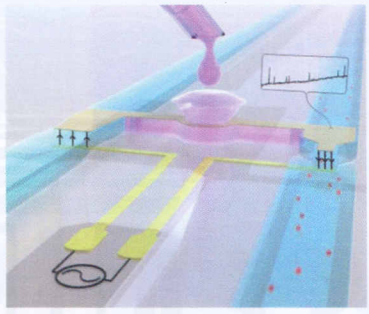
PROFILE

1995

A new floating electrode structure for generating homogeneous electrical fields in microfluidic channels

Loes I. Segerink,* Ad J. Sprenkels, Johan G. Bomer, Istvan Vermes and Albert van den Berg

In this paper we describe a new parallel electrode structure having a floating electrode to generate a homogeneous electrical field.

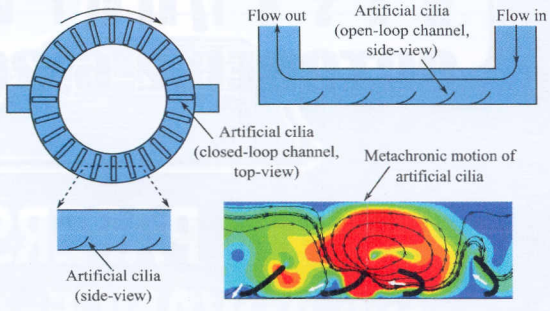


2002

Magnetically-actuated artificial cilia for microfluidic propulsion

S. N. Khaderi, C. B. Craus, J. Hussong, N. Schorr, J. Belardi, J. Westerweel, O. Prucker, J. Rühe, J. M. J. den Toonder and P. R. Onck*

In this paper we quantitatively analyse the performance of magnetically-driven artificial cilia for lab-on-a-chip applications, using a coupled magneto-mechanical solid–fluid interaction model.

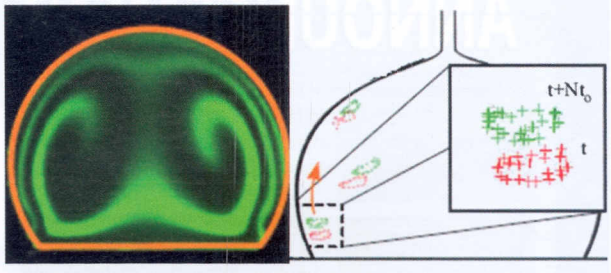


2011

Capillary Stokes drift: a new driving mechanism for mixing in AC-electrowetting

Frieder Mugele,* Adrian Staicu, Rina Bakker and Dirk van den Ende

Electrowetting driven drop oscillations drive chaotic mixing in sessile drops. Left: distribution of dye during drop mixing. Right: colloidal tracer particles report the internal flow field.

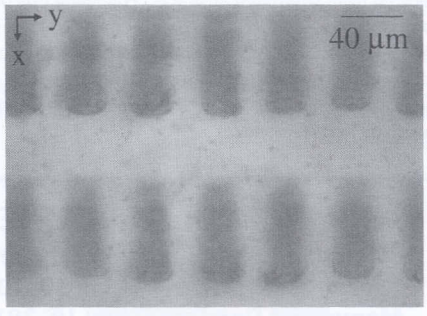


2017

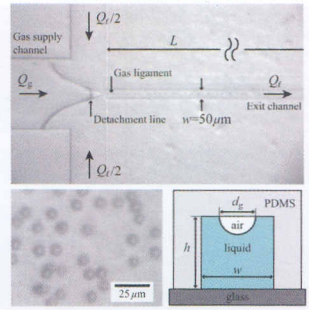
Experimental investigation of the flow induced by artificial cilia

J. Hussong,* N. Schorr,* J. Belardi, O. Prucker, J. Rühe and J. Westerweel

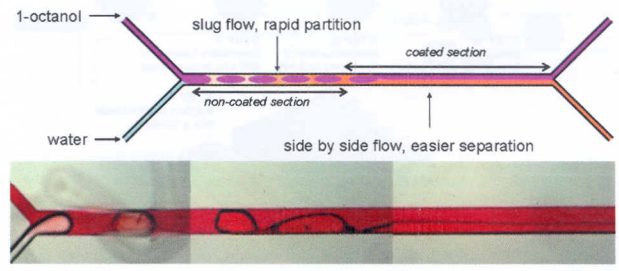
Magnetically actuated artificial cilia of rectangular shape create phase-averaged fluid velocities in the order of 10^2 μm s^{-1}. Volume flow rates of 14 ± 4 μl min^{-1} can be achieved when no back pressure is built up.

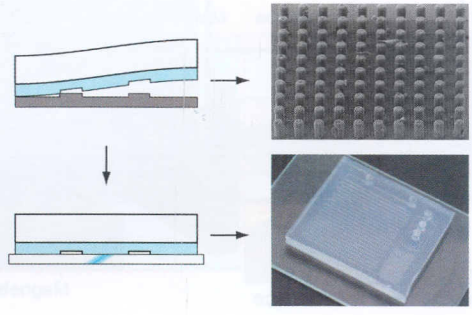


PAPERS



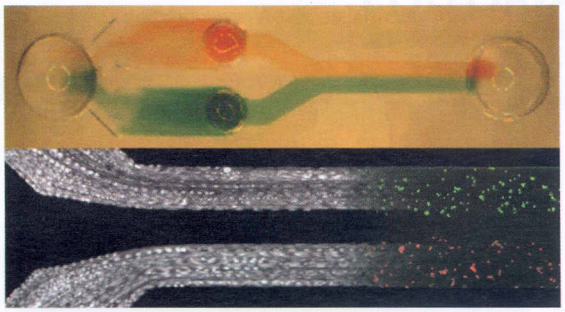
TECHNICAL NOTES

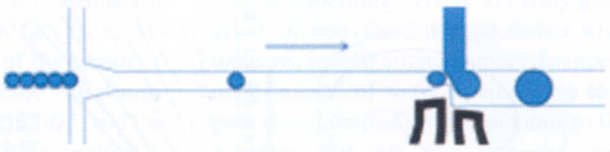


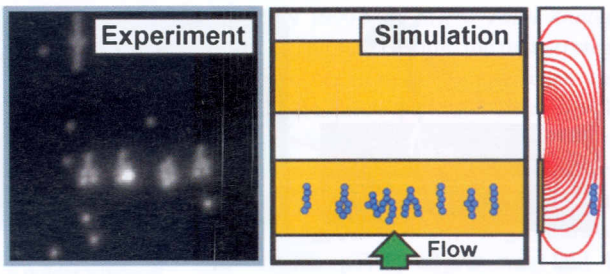


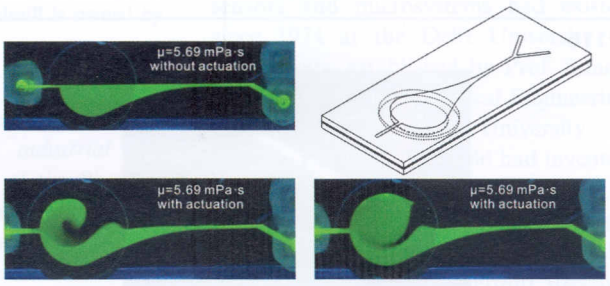
REGULAR RESEARCH ARTICLES

FOCUS









TECHNICAL NOTE