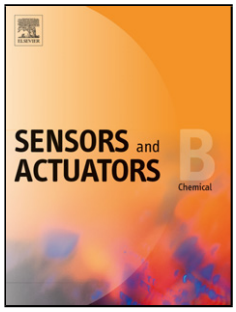

Title: High Cell Viability Microfluidic Electroporation in a Curved Channel

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PII: S0925-4005(17)30685-8
DOI: http://dx.doi.org/doi:10.1016/j.snb.2017.04.085
Reference: SNB 22173

To appear in: *Sensors and Actuators B*

Received date: 26-1-2017
Revised date: 3-4-2017
Accepted date: 13-4-2017

Please cite this article as: D. Huang, D. Zhao, J. Li, Y. Wu, W. Zhou, W. Wang, Z. Liang, Z. Li, High Cell Viability Microfluidic Electroporation in a Curved Channel, *Sensors and Actuators B: Chemical* (2017), http://dx.doi.org/10.1016/j.snb.2017.04.085

Highlights

1. Hydrodynamics strategy of Dean vortex was utilized to isolate the cells from electrode enhance the cell viability.

2. An optimized flow rate for cell electroporation was obtained.

3. The device realized successful electroporation on several cell types with high viability and high transfection rate.

4. The high-throughput reaching 2.2 ml/min and continuous electroporation were achieved.