

Accepted Manuscript

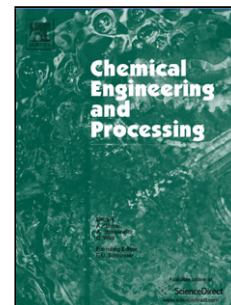
Title: Design and optimization of microfluidic device for generating robust uniform concentration gradients

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PII: S0255-2701(17)30676-1
DOI: <https://doi.org/10.1016/j.cep.2017.12.011>
Reference: CEP 7145

To appear in: *Chemical Engineering and Processing*

Received date: 12-7-2017
Revised date: 22-11-2017
Accepted date: 17-12-2017



Please cite this article as: Deekshith K., Sameer Jadhav, Design and optimization of microfluidic device for generating robust uniform concentration gradients, *Chemical Engineering and Processing* <https://doi.org/10.1016/j.cep.2017.12.011>

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Design and optimization of microfluidic device for generating robust uniform concentration gradients

Running Title: Concentration gradient in microfluidic device

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Highlights

- A novel microfluidic device is modeled to generate a robust concentration gradient
- 3D Finite element simulations of fluid flow were employed for device optimization
- Device geometry and flowrate systematically varied to obtain optimal design
- Concentration gradient is largely undisturbed for 25 percent inlet flow difference

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