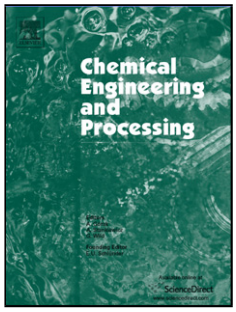

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PII: S0255-2701(17)31109-1
DOI: https://doi.org/10.1016/j.cep.2018.03.017
Reference: CEP 7227

To appear in: *Chemical Engineering and Processing*

Received date: 7-11-2017
Revised date: 8-2-2018
Accepted date: 16-3-2018

Please cite this article as: Cheng Y, Jiang Y, Wang W, Numerical simulation for electro-osmotic mixing under three types of periodic potentials in a T-shaped micro-mixer, *Chemical Engineering and Processing* (2010), https://doi.org/10.1016/j.cep.2018.03.017

Numerical simulation for electro-osmotic mixing under three types of periodic potentials in a T-shaped micro-mixer

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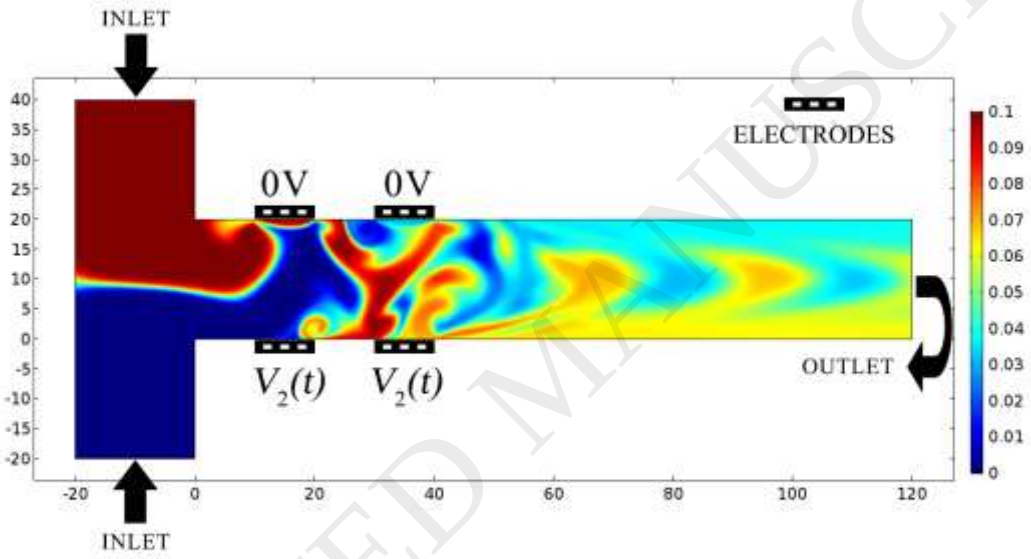
GRAPHICAL ABSTRACT



Highlights

- Three different types of periodic potentials are applied on the electrodes on the
- wall of a T-shaped micro-mixer to reveal the most energy-saving type of
- potential.
- Changes of mixing efficiency with the time *t* and the fluency *f* under all of
- three types of periodic potentials are obtained.
- To explain the results obtained, square wave function is chosen to analyse its