

PhD position at IFP Energies nouvelles (IFPEN) in *Physical sciences*

Microfluidic screening on physical properties

High throughput screening examples thanks to droplet microfluidics are numerous in literature for drug or microorganism selection applications. Compartmentalization into drops of the biological system is a way to individualize and sort it. The sorting of the droplets of interest can be done according to a detected fluorescence level. We aim at broadening this method to sorting on physicochemical properties. This methodology should apply to biotechnology for the selection of microorganisms involved in biofuel production processes. This approach will open up high throughput experimentation (HTE) on numerous systems of interest for IFPEN and will enable better characterization and knowledge of complex fluids.

Keywords: Microfluidics, HTE, Biotechnology

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IFPEN supervisor	PANNACCI Nicolas, Physical Chemistry of Complex Fluids and Materials Department, nicolas.pannacci@ifpen.fr
PhD location	IFP Energies nouvelles, Rueil-Malmaison, France
Duration and start date	3 years, starting preferably on November 1, 2015
Employer	IFP Energies nouvelles, Rueil-Malmaison, France
Academic requirements	University Master degree in physics or physical chemistry
Language requirements	Fluency in French or English, willingness to learn French
Other requirements	High experimental skills required

For more information or to submit an application, see theses.ifpen.fr or contact the IFPEN supervisor.

About IFP Energies nouvelles

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IFPEN offers a stimulating research environment, with access to first in class laboratory infrastructures and computing facilities. IFPEN offers competitive salary and benefits packages. All PhD students have access to dedicated seminars and training sessions.