The 53rd iCeMS SEMINAR

Mon 09 August 2010
16:00-17:00

Emulsions and Oil/Water Interfaces

New Tools for Biophysics and Microsystems Technologies

Lecturer: **Assoc. Prof. Jacques Fattaccioli**

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Venue: 2nd floor Seminar Room (#A207), Main Building
iCeMS Complex 1, Kyoto University

Our research interests relies on the precise design and control of the properties of microsystems having one or more oil-water interfaces, such as emulsion droplets suspensions or microfluidic devices. After a short introduction about the ENS, the Department of Chemistry and the Nanoflux laoboratory, we will first describe how the oil-water interface of emulsion droplets can be functionalized by biomimetic molecules and how the droplets can adhere specifically on substrates and bring a new understanding of the cell-cell adhesion biophysics. Then, we will present the results obtained with oil droplets decorated by molecular motors for the construction of bio-MEMS devices. Finally we will show how the presence of an oil-water interface in a microchamber allows controlling the localization of the nucleation process of a protein crystal.

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