

# Séminaire de Chimie Autour des Nanosciences

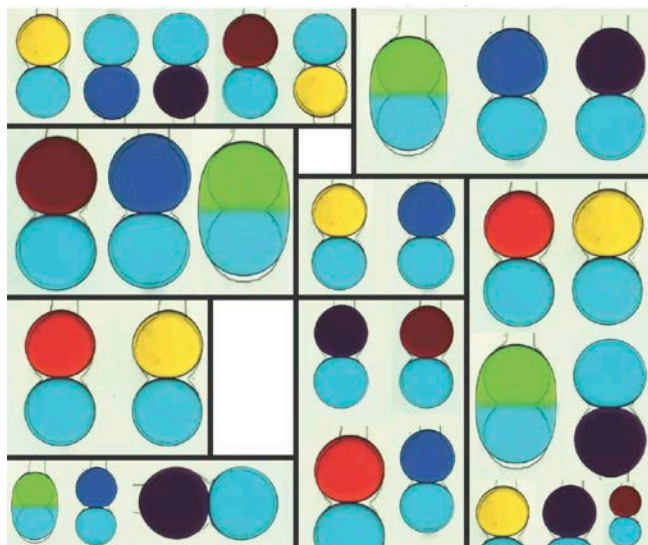
## CHARLES BAROUD

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Donnera une conférence sur le thème :

### **MEASURING FAST AND SLOW CHEMICAL KINETICS IN NANOLITER MICROFLUIDIC DROPLETS**

Microfluidic droplets are often suggested as nanoliter-scale reactors in which chemical or biological reactions can take place. However the fluid mechanics at small scales limit the mixing that can take place between two species. So measuring the kinetics of a chemical reaction must account for the transport phenomena that take place in these droplets. In this presentation I will show some recent work that we have done to develop methods to measure kinetics of simple and enzymatic reactions. The method is based on novel microfluidic designs, as well as on mathematical modeling of the reaction-diffusion phenomena that take place between two species. The devices we have developed allow a wide range of chemistries to be observed while using nanoliters of sample and in integrated microfluidic devices.



**LE VENDREDI 18 Mars À 11H00**

**Bat. Lavoisier, salle 774, 15 rue Jean de Baïf 75013 Paris**