

# *The Edward Noble Kramer Lectureship in Physical Chemistry*

Tuesday,  
September 10, 2013

4:00 pm

Room 1800  
Engineering Hall

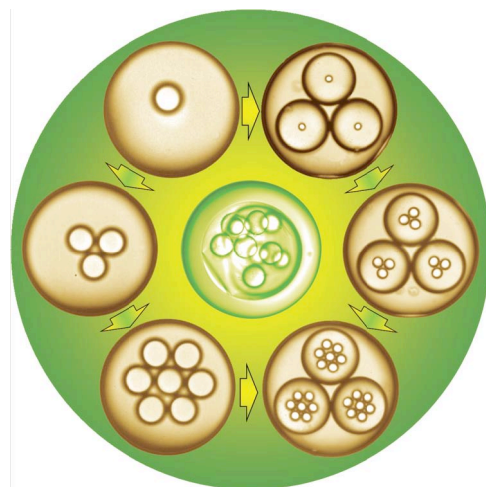
## **Dripping, Jetting, Drops and Wetting: the Magic of Microfluidics**



Professor David A. Weitz  
*School of Engineering and Applied Sciences  
Harvard University*

Host: Professor Mark Ediger

In this lecture I will discuss the use of microfluidic devices to precisely control the flow and mixing of fluids to make drops, and will explore a variety of uses of these drops. These drops can be used to create new materials that are difficult to synthesize with any other method. These materials have great potential for use for encapsulation and release and for drug delivery. I will also show how the exquisite control afforded by microfluidic devices provides enabling technology to use droplets as microreactors to perform biological reactions at remarkably high rates using very small quantities of fluids. These are of particular value for performing very high-throughput screening experiments. I will demonstrate how this can be used for new fundamental and technological applications.



Please join us at 3:30 pm for a reception in the Engineering Hall Lobby prior to the lecture