Abstract Submitted
for the MAR12 Meeting of
The American Physical Society

**Formation of Uniform Hollow Silica microcapsules** HUAN YAN, CHANJOONG KIM, Liquid Crystal Institute and Chemical Physics Interdisciplinary Program, Kent State University, Kent, OH44242, USA — Microcapsules are small containers with diameters in the range of 0.1 – 100 $\mu$m. Mesoporous microcapsules with hollow morphologies possess unique properties such as low-density and high encapsulation capacity, while allowing controlled release by permeating substances with a specific size and chemistry. Our process is a one-step fabrication of monodisperse hollow silica capsules with a hierarchical pore structure and high size uniformity using double emulsion templates obtained by the glass-capillary microfluidic technique to encapsulate various active ingredients. These hollow silica microcapsules can be used as biomedical applications such as drug delivery and controlled release.

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Date submitted: 26 Nov 2011 Electronic form version 1.4