Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Drops and Jets in two Phase Coaxial Flows ANDREW UTADA, ALBERTO FERNANDEZ-NIEVES, DAVID WEITZ, Harvard University — We discuss the transition from dripping to jetting from a nozzle in a coaxially flowing fluid. The fact that the outer fluid is viscous and moving affects the transition from dripping to jetting as well jet shape and drop formation mechanism. We relate the physics of drop formation to a recently reported microcapillary device (1,2) that generates monodisperse double emulsions. (1) A. S. Utada, E. Lorenceau, D. R. Link, P. Kaplan, H. A. Stone, D. A. Weitz, Science 308, 537 (2005) (2) E. Lorenceau, A. S. Utada, D. R. Link, G. Cristobal, M. Joanicot, D. A. Weitz, Langmuir in press, (2005).

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Date submitted: 30 Nov 2005 Electronic form version 1.4