Abstract Submitted for the MAR12 Meeting of The American Physical Society

Multiphase flow within 3D porous media SUJIT DATTA, DAVID WEITZ, Department of Physics, Harvard University — Multiphase flow through porous media is important for a diverse range of processes including aquifer remediation, CO2 sequestration, and oil recovery. Despite its enormous importance, exactly how flow proceeds within a porous medium is unknown; the opacity of the medium typically precludes direct imaging of the flow. Here, we present an experimental technique to directly visualize multiphase flow within porous media. Using this approach, we show how heterogeneity strongly affects flow behavior during the drainage of porous media.

Sujit Datta Department of Physics, Harvard University

Date submitted: 07 Nov 2011

Electronic form version 1.4