

Abstract Submitted
for the MAR10 Meeting of
The American Physical Society

Coarsening in Two Dimensional Foams ADAM ROTH, University of Pennsylvania, CHRISTOPHER JONES, DOUGLAS DURIAN, University of Pennsylvania — Coarsening in two dimensional foams is governed by Von Neumann's law, which relates rate of change of size of a bubble to its number of sides. We have built an apparatus that allows us to measure individual bubble statistics, such as area and number of sides, as they coarsen. We can also control the liquid fraction of the foam, which allows us to control the rate of coarsening. We observe correspondence to Von Neumann's law except for a deviation for small bubbles. Small bubbles are observed to coarsen more slowly than expected based on the number of sides. This effect is due to increased local liquid fraction contributed by the Plateau borders.

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Date submitted: 19 Nov 2009

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