

Abstract Submitted
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Coarsening of Two Dimensional Foams on a Curved Surface

ADAM ROTH, University of Pennsylvania, CHRIS JONES, Cornell University, DOUG DURIAN, University of Pennsylvania — We report on foam coarsening and statistics of bubble distributions in a closed, two dimensional, hemispheric cell of constant curvature. Using this cell it is possible to observe individual bubbles and measure their coarsening rates. Our results are consistent with the modification to von Neumann's law predicted by Avron and Levine. We observed the relative frequencies of bubbles with a given number of sides and found a shortage of bubbles with few sides as compared to a flat two dimensional cell. We also measured the value of $m(n)$, the average number of sides of an n sided bubble, and found general agreement with the Aboav-Weaire law, although there was greater deviation than for a flat cell.

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