

Abstract Submitted
for the MAR13 Meeting of
The American Physical Society

Capture Zone Distributions and Island Morphologies in Organic Epitaxy and Graphene Formation ALBERTO PIMPINELLI, Rice Quantum Institute, Rice Univ. & Univ. of Maryland, College Park (UMD), T.L. EINSTEIN¹, Physics & CMTC, UMD — Stating that island nucleation is an essential step in the formation of an epitaxial or supported layer may appear trivially obvious. However, less trivial is the observation that the size of the critical nucleus plays a crucial role in that it determines both the island density (and therefore the size of domains) and the evolution of the island morphology. In this talk we will describe recent developments in the analysis of capture zone distributions (CZD) specifically tailored for application to organic materials. We will also describe specific features of organic and graphene island morphologies, and discuss how they are related to the nucleation process and to the size of the critical nucleus.

¹Work at UMD supported by NSF-MRSEC, Grant DMR 05-20471 and NSF CHE 07-49949

Theodore Einstein
Univ. of Maryland, College Park

Date submitted: 09 Nov 2012

Electronic form version 1.4