

Abstract Submitted
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Morphology and Crystalline Structure of the Epitaxial Growth of Tetracene Thin Films on H/Si(001)-2x1 Substrate¹ ANDREW TERSIGNI, DE-TONG JIANG, XIAORONG QIN, Dept. of Physics, University of Guelph — Epitaxial growth of tetracene films on H/Si(001)-2x1 surface has been studied systematically using AFM, STM and X-ray diffraction. The surface morphology and in-plane lattice structure observed from AFM and STM are compared with that extracted from the diffraction measurements to reach a consistent description on the in-plane and out-plane lattice parameters of different epitaxial domains, respectively. The influence of the substrate roughness and film coverage to the morphology and underlying lattice structures will be discussed in the light of various characteristics revealed by the multiple structural tools.

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