

Abstract Submitted
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Grain Boundaries In Thin Film Organic Semiconductors¹ CORTNEY BOUGHER, SHAWN HUSTON, EITAN LEES, Appalachian State University, JEREMY WARD, ABDUL OBAID, Wake Forest University, MARSHA LOTH, JOHN ANTHONY, University of Kentucky, OANA JURCHESCU, Wake Forest University, BRAD CONRAD, Appalachian State University — We utilize conductive atomic force microscopy (C-AFM) and tunneling atomic force microscopy (TUNA) to characterize dynamics of electronic transport across fluorinated triethylsilylethynyl anthradithiophene (diF-TES ADT) grain boundaries. The crystallization of diF-TES ADT grown on SiO₂ will be discussed and related to comparable molecules. The resulting voltage drop between individual crystals as a function of dopants will be discussed in terms of charge transport models and compared to current device work.

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