

Abstract Submitted  
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**Scanning Tunneling Microscopy investigation of the assembly of diF-TES-ADT on Ag(111)**<sup>1</sup> SHAWN HUSTON, Appalachian State University, JIUYANG WANG, North Carolina State University, MARSHA LOTH, JOHN ANTHONY, University of Kentucky, BRAD CONRAD, Appalachian State University, DANIEL DOUGHERTY, North Carolina State University — Over the past two decades organic molecules have shown increasing promise as active layers in electrical devices such as field effect transistors, organic light emitting diodes, and organic photovoltaic devices. The suitability of organic molecules for use in these devices is governed by several properties, chief among them being the ability to self-organize into a film showing high carrier mobility. Organic thin film transistors (OTFT) partially composed of solution processed 2,8-difluoro-5,11-bis(triethylsilylethynyl)-anthradithiophene have shown high performance. To date these OTFTs have been constructed solely by solution processing. As such, we have chosen to investigate the possibility of vapor deposition as an alternative. Our investigation of the viability of vapor deposition of this promising molecule begins with deposition on Ag(111) as a model system. Preliminary STM results will be presented and discussed.

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