Abstract Submitted for the MAR12 Meeting of The American Physical Society

STM Examination of Trithiapentacone on Vicinal Gold (788) AMANDA BROWN, JEREMIAH VAN BAREN, University of New Hampshire, Department of Physics, JEREMY KINTIGH, University of New Hampshire, Department of Chemistry, JUN WANG, University of New Hampshire, Department of Physics, GLEN MILLER, University of New Hampshire, Department of Chemistry, KARSTEN POHL, University of New Hampshire, Department of Physics — Trithiapentacone (TTPO) is a member of a group of promising novel pentacene derivatives of interest in organic electronics for their excellent resistance to photooxidation and a range of band gaps. TTPO is a robust molecule with a HOMO-LUMO gap of 1.95 eV that can be thermally evaporated onto an electrode. TTPO is a polar species of pentacene with centered oxygen and sulfur bridge substituents. The vicinal gold (788) surface is a well studied surface on which pentacene molecules and other pentacene derivatives such as 6,13-dichloropentacene self assemble in long range order. We will present a STM study of TTPO on Au (788) addressing the possibility of self-assembly for organic semiconductor applications.

> Amanda Brown University of New Hampshire, Department of Physics

Date submitted: 10 Nov 2011

Electronic form version 1.4