

Abstract Submitted
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5,6,7-trithiapentacene-13-one on vicinal gold (788): a STM study AMANDA LARSON, JEREMIAH VAN BAREN, JEREMY KINTIGH, JUN WANG, GLEN MILLER, KARSTEN POHL, University of New Hampshire — Scanning tunneling microscopy was used to examine the atomic interface between gold and 5,6,7-trithiapentacene-13-one (TTPO), an electron donor of potential interest for photovoltaic applications. TTPO is a polar species of pentacene with centered oxygen and sulfur bridge substituents. TTPO is a thermally and photo-oxidatively robust molecule with a HOMO-LUMO gap of 1.90 eV that can be thermally evaporated onto an electrode. The vicinal gold (788) surface is a well-studied surface on which pentacene molecules and other pentacene derivatives self assemble in long range order. We examined TTPO on gold to gain a better understanding of the structure of photovoltaic interfaces at the nanoscale.

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