

Abstract Submitted
for the MAR09 Meeting of
The American Physical Society

Infrared and Electro-Optic Properties of TIPS-Pentacene¹ E.G. BITTLE, J.W. BRILL, J.E. ANTHONY, University of Kentucky — We will discuss new measurements of the infrared and electro-optic properties of thin crystals of triisopropylsilylethynyl (TIPS) pentacene. As with THz studies of this class of materials, crystalline films were grown from saturated tetrahydrofuran solutions on a gold electrode mask. Square wave voltages were applied to the electrical contacts on the sample as well as a gate electrode below the sample, through an oxide dielectric. Changes in phonon frequencies were studied as functions of voltage, position between contacts, and frequency of applied voltage. The results are interpreted in terms of charge diffusion through the TIPS-pentacene crystals.

¹This research was supported by NSF-DMR Grants 0801764 and 0400938.

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Date submitted: 13 Nov 2008

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