

Abstract Submitted
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Impedance Spectroscopy of Organic Thin Film Transistors and Contacts¹ DANIEL LENSKI, ADRIAN SOUTHARD, MICHAEL S. FUHRER, Department of Physics and Center for Nanoscience and Applied Materials, University of Maryland, College Park, MD 20742, USA — We have developed a novel method of characterizing organic thin films using a 2- or 3-contact transmission line configuration, in which an AC voltage is applied to the thin film and the phase and magnitude of the current are measured. This simple method can shed light not only on the bulk properties of the semiconductor film, but also on the contacts, by varying the effective length scale probed in the sample. We present the results of transmission line measurements of pentacene thin films, with several types of contacts including thin films of carbon nanotubes.

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Daniel Lenski
Department of Physics and Center for Nanoscience and Applied Materials,
University of Maryland, College Park

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