

Abstract Submitted
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Determination of the Current Voltage Signatures of NanoGUMBOS¹ KALYAN KANAKAMEDALA, SERGIO DE ROOY, SUSMITA DAS, Louisiana State University, BILAL EL-ZAHAB, Massachusetts Institute of Technology, ISIAH WARNER, THEDA DANIELS-RACE, Louisiana State University — Tantamount to the realization of next generation nanoscale devices is the synthesis and characterization of new electronic materials. GUMBOS, or a **Group of Uniform Materials Based on Organic Salts**, represent a first-time synthesis of nanoscale material composed of ionic liquid species in the frozen (solid) state whose electronic characteristics are indicative of potential future application to device electronics. Using a Keithley 4200 semiconductor characterization system, we have examined the nanoscale conductivity and current-voltage (I-V) characteristics of GUMBOS nanowires under both aqueous and “dry” conditions. Just as nanoGUMBOS are new materials in the realm of ionic liquid research, our I-V measurements are a first-time characterization of this species of nanostructures.

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