## Abstract Submitted for the MAR06 Meeting of The American Physical Society

Novel Solid State Fabrication Techniques<sup>1</sup> T. L. MOORE, Department of Physics, University of Maryland, College Park, MD 20742, D. R. HINES, Laboratory for Physical Sciences, University of Maryland, College Park, MD 20742, E. GOMAR-NADAL, E. D. WILLIAMS, Department of Physics, University of Maryland, College Park, MD 20742 — We have electrochemically fabricated high dielectric coatings and nanowires in porous membranes. TEM images showed the nanowires to contain grains of single crystallinity. I-V characteristics of dielectric coatings have been investigated to optimize resistivity for minimum thickness. We will report on transport properties of structures constructed using these novel components. The feasibility of incorporating these electrochemically prepared solid state structures in nanoimprinted pentacene thin-film transistors will be evaluated.

<sup>1</sup>Laboratory for Physical Sciences at University of Maryland, College Park, MD 20742

Masa Ishigami Department of Physics, University of Maryland, College Park, MD 20742

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