Abstract Submitted
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Synthesis and Electrical Properties of Nanorods and Nanotubes of Poly(3-hexylthiophene) ADRIAN SOUTHARD, Dept. of Physics and Center for Superconductivity Research at Univ. of MD, SEUNGIL CHO, MIRIAM BERDICHEVSKY, Dept. of Chemistry and Biochemistry at Univ. of MD, MICHAEL FUHRER, Dept. of Physics and Center for Superconductivity Research at Univ. of MD, SANG JUN SON, SANG BOK LEE, Dept. of Chemistry and Biochemistry at Univ. of MD — Nanorods and nanotubes (diameter 50 - 200 nm) of poly(3-hexylthiophene), P3HT, an organic semiconductor, were synthesized by electrochemical polymerization in a porous alumina template. FET devices have been constructed with a conducting channel of P3HT nanorods contacted by gold source and drain electrodes patterned on a SiO_2/Si substrate using e-beam lithography. Synthesis, characterization, and electrical measurements of the P3HT nanorods and nanotubes will be reported.

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