

Abstract Submitted
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Electrospun fibers of PLA/P3HT blends for device and sensor applications¹ WILLIAM SERRANO, NICHOLAS PINTO, University of Puerto Rico - Humacao — The thermoplastic aliphatic polyester, poly (lactic acid) (PLA) is a biodegradable polymer that is sometimes used in implant screws for bone repair. Our focus was to fabricate fibers of this polymer and its blends with p-doped poly (3-hexylthiophene)-(P3HT) in order to extend its use to devices and/or sensors. PLA/P3HT fibers were prepared in air at room temperature using the electrospinning technique that is cheap, fast and reliable. Scanning Electron Microscope images of the fibers reveal that the presence of P3HT does not affect the fabrication of PLA fibers at low or high polymer concentrations in chloroform, retaining the same morphological structure of pure PLA fibers. The fiber diameters were in the range 1-10 microns. A slight increase in fiber formation results with the addition of P3HT, most likely due to a reduction of the solution surface tension. Results of the electrical characterization of this material will be presented.

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