

Abstract Submitted
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Directional Growth of Polymeric Nanowires PREM THAPA, BRET FLANDERS — This work establishes an innovative electrochemical approach to the template free growth of conducting polypyrrole and polythiophene wires. These polymeric wires exhibit a knobby structure, but persistent growth in a given direction up to 30 μm in length. A long-range component of the applied voltage signal defines the growth-path. Moreover, the presence of this component enables the growth of amorphous nanowires with wire-like geometries. Such wires are employed in a non-invasive methodology for attaining strong mechanical attachments to live cells. This capability is of potential use in the electro-mechanical probing of cell physiological processes.

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