Directed Electrochemical Nanowire Assembly

PREM THAPA, BRET FLANDERS, Oklahoma State University — Directed Electrochemical Nanowire Assembly (DENA) technique is a single-step approach to fabricating metallic nanowires and interconnecting them with external circuitry. We have previously shown that these are near single crystalline metallic nanowires and that they interconnect with on-chip electrodes with very small contact resistances. Here we discuss the user-directed growth of these nanowires up to inter-electrode targets, such as biological cells. Recent results on the delivery of small voltages to these targets will be discussed, as well.

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