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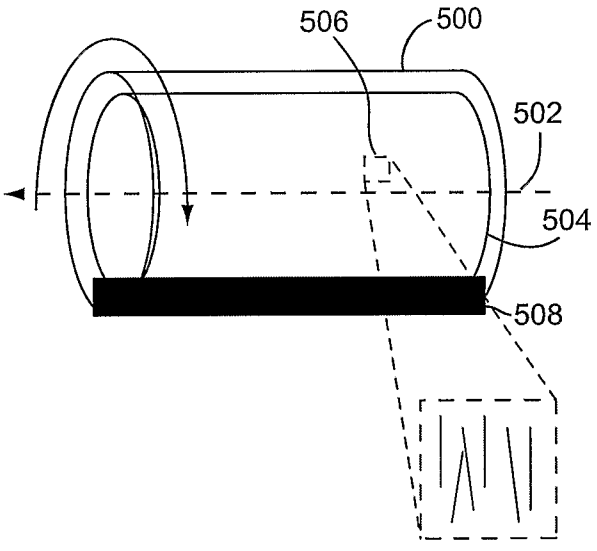
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(54) Title: SYSTEMS AND METHODS FOR HARVESTING AND INTEGRATING NANOWIRES



(57) Abstract: The present invention is directed to methods to harvest, integrate and exploit nanomaterials, and particularly elongated nanowire materials. The invention provides methods for harvesting nanowires that include selectively etching a sacrificial layer placed on a nanowire growth substrate to remove nanowires. The invention also provides methods for integrating nanowires into electronic devices that include placing an outer surface of a cylinder in contact with a fluid suspension of nanowires and rolling the nanowire coated cylinder to deposit nanowires onto a surface. Methods are also provided to deposit nanowires using an ink-jet printer or an aperture to align nanowires. Additional aspects of the invention provide methods for preventing gate shorts in nanowire based transistors. Additional methods for harvesting and integrating nanowires are provided.

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