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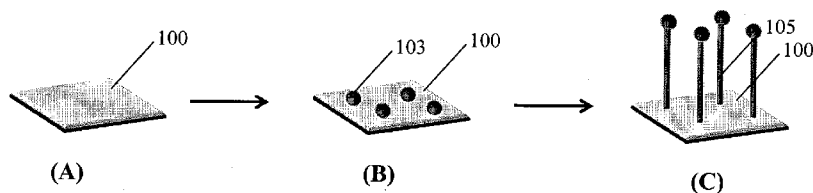
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(54) **Title:** METHODS FOR FORMING GOLD NANOWIRES ON A SUBSTRATE AND GOLD NANOWIRES FORMED THEREOF

FIG. 1



(57) **Abstract:** A method for forming gold nanowires on a substrate is provided. The method includes a) attaching noble metal nanoparticles onto the substrate; and b) contacting the noble metal nanoparticles with an aqueous solution comprising a ligand, gold ions and a reducing agent, wherein the ligand is an organic compound having a thiol group. Gold nanowires formed by a method according to the method, and an electronic device comprising the gold nanowires are also provided.