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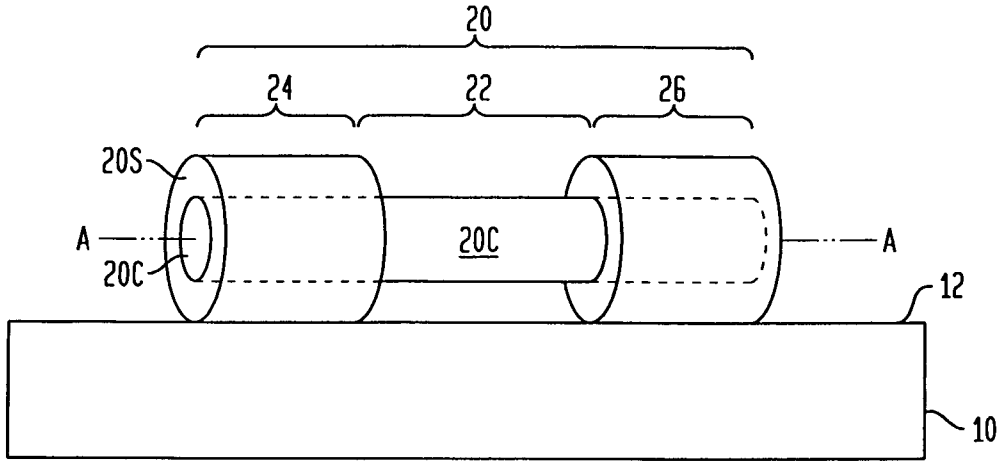
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(54) Title: SEMICONDUCTOR NANOSTRUCTURES, SEMICONDUCTOR DEVICES, AND METHODS OF MAKING SAME



(57) Abstract: A semiconductor structure is provided, which includes multiple sections arranged along a longitudinal axis. Preferably, the semiconductor structure comprises a middle section and two terminal sections located at opposite ends of the middle section. A semiconductor core having a first dopant concentration preferably extends along the longitudinal axis through the middle section and the two terminal sections. A semiconductor shell having a second, higher dopant concentration preferably encircles a portion of the semiconductor core at the two terminal sections, but not at the middle section, of the semiconductor structure. It is particularly preferred that the semiconductor structure is a nanostructure having a cross-sectional dimension of not more than 100 nm.

WO 2008/088669 A8

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