

Novel Quantum Wire Structures

TECH FIELD(S)

Nanotechnology, Electronics

FEATURES

One-dimensional nanowire and carbon tube semiconductors have a wide variety of applications in the electronics industry, for example in integrated circuits and biological sensors, and are expected to replace traditional CMOS semiconductors. However, making contacts for such nanotechnology-based semiconductors is difficult and often results in damage to the wires, high resistance than desired, and inconsistency in manufacturing such semiconductors. This technology uses strain to form core shell and segmented nanowires with the result being more reliable and consistent contacts in the manufacture of nanotechnology-based semiconductors.

BENEFITS

- Less damage to nanowires in manufacturing semiconductor.
 - Low-resistance semiconductors can be produced.
 - Consistency across batches of semiconductors.
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INVENTOR(S)

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INTELLECTUAL PROPERTY STATUS

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