



## Superlattice Heterostructures Formed With Single Crystalline Semiconductor Nanomembranes And Amorphous Tunneling Barrier Layers

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### The Invention

Superlattice structures composed of single-crystal semiconductor wells and amorphous barriers are provided. Also provided are methods for fabricating the superlattice structures and electronic, optoelectronic, and photonic devices that include the superlattice structures. The superlattice structures include alternating quantum barrier layers and quantum well layers, the quantum barrier layers comprising an amorphous inorganic material and the quantum well layers comprising a single-crystalline semiconductor.

### Additional Information

#### For More Information About the Inventors

- [Zhenqiang Ma](#)

#### Tech Fields

- [Semiconductors & Integrated Circuits : Design & fabrication](#)

For current licensing status, please contact Jeanine Burmania at [jeanine@warf.org](mailto:jeanine@warf.org) or 608-960-9846