



PATTERNED SURFACE WATER ASSISTED PACKING DENSITY AND ALIGNMENT ENHANCEMENT OF CARBON NANOTUBE ARRAYS

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Inventors: Michael Arnold, Sean Foradori

The Invention

UW-Madison researchers have developed new methods of forming films of aligned elongated nanoparticles. These films may include carbon nanotubes and could find use in electronic devices, such as transistors. Elongated nanoparticles floating at the surface of a liquid film are deposited onto a liquid film-adsorbing surface region of a substrate as the liquid film dissipates from the surface. The alignment and deposition of the elongated nanoparticles occurs along a contact line that is defined by the liquid film, the substrate, and either an immiscible liquid suspension of the elongated nanoparticles or air. As the liquid film dissipates, the contact line recedes across the liquid film-adsorbing surface region and elongated nanoparticles pinned at the contact line are deposited onto the surface in the form of a nanoparticle film.

Additional Information

For More Information About the Inventors

- [Michael Arnold](#)

Tech Fields

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

For current licensing status, please contact Jeanine Burmania at jeanine@warf.org or 608-960-9846