



SELF-ASSEMBLING ROD-COIL COPOLYMERS FOR CARBON NANOTUBE SORTING AND THE FABRICATION OF CARBON NANOTUBE FILMS

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The Invention

UW-Madison researchers have developed a triblock copolymer strategy for controlling the spacing between CNTs. The triblock copolymers consist of an A-B-A architecture where the B block is the conjugated polymer that latches on to the CNTs, and the A blocks are nonconjugated coils that serve to increase the solubility and define the spacing between the CNTs. The length of the coil blocks can be modulated to control this spacing. The chemistry of the coil blocks can also be potentially tuned to provide bridging between the CNTs to further define the spacing. The addition of the coil blocks vastly improves the sorting efficiency for a given length of B block without compromising the selectivity.

Additional Information

For More Information About the Inventors

- [Padma Gopalan](#)
- [Michael Arnold](#)

Tech Fields

- [Materials & Chemicals : Polymers](#)
- [Semiconductors & Integrated Circuits : Components & materials](#)

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