

A Low-Cost Process for Manufacturing Thin Film Carbon Nanotube Based Composites

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Goal:

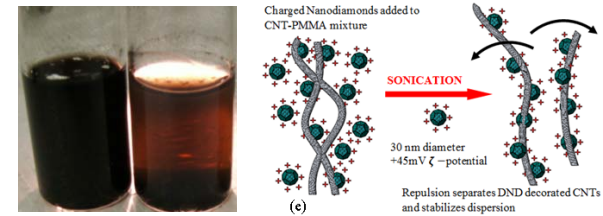
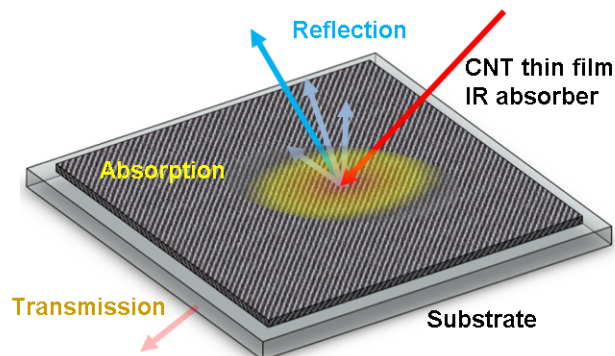
- To develop a uniform patternable “BLACK” layer

Method:

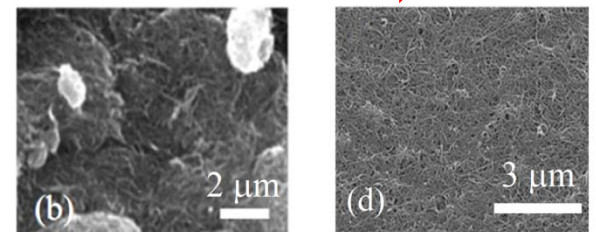
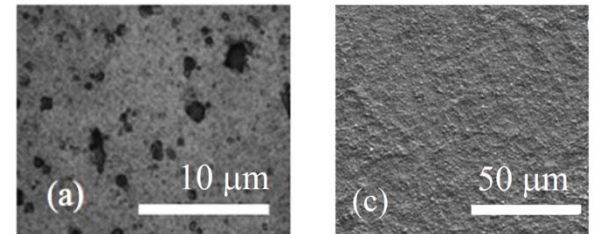
- Use CNT as the absorber material and charged nanodiamond as a surfactant to make nanocomposite thin films

Attributes:

- Spin-on CNT nanocomposite material
- Ultra-efficient Infrared absorber coating
- Low cost, simple fabrication
- Low thermal budget
- MEMS process compatible



Stabilized suspension of CNT/DND/PMMA



Without nanodiamonds

With nanodiamonds