



Name of the Technology: Development of free standing and flexible carbon nanotube paper

Summary:

Free standing carbon nanotube (CNT) film (Bucky paper) is a very important material for various applications i.e. batteries electrode, super capacitors, actuators, sensors, conducting reinforcement, EMI shielding and structure application. A process has been developed to prepare different size of flexible CNT papers i.e. 10 cm dia, 20 cm × 20 cm and 35 cm × 35 cm. These thin free standing papers are prepared by steps of dispersion, ultra-sonication and vacuum filtration of CNTs.

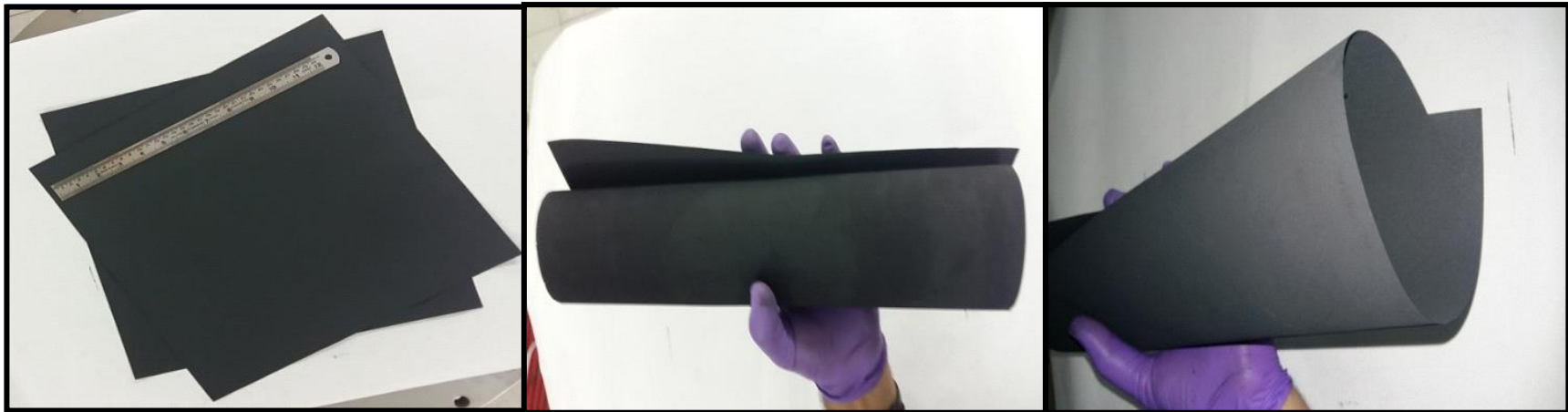


Figure: CNT Based Paper of Size 35 cm x 35 cm

Applications

- ❖ Electrodes for Batteries and Fuel Cells
- ❖ EMI Shielding
- ❖ Lightning Protection
- ❖ Thermal Heat sinks for Electronic Equipment

- Reinforcement Sheet
- Materials for Aerospace and Automobiles
- Armor Plating
- Air and Liquid Filtration Systems

**User Industries:**

❖ Battery Industry Aerospace Industry Electronic Industry, Automobile

Advantages:

The present technology is a cost effective approach towards the preparation of flexible freestanding paperby utilizing low cost ingredient in the processing.

Readiness level of the Technology:

Idea	Concept Definition	Proof of Concept	Prototype	Lab Validation	Technology Development	Technology Demonstration	Technology Integrated	Market Launch

Related Patent:

Patent No: **Know How**

Country: ---

Publication Date: ---

Grant Date: ---

Year of Introduction: 2015-16

Broad Area/Category: Advanced carbon products