

# **UNH Materials Science Seminar**

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DeMeritt Hall 209B

University of New Hampshire

## **Purification, Solubilization and Functionalization of Carbon Nanotubes – A Review**

**Chandrani Pramanik**

Materials Science Program

University of New Hampshire

Since the end of 20<sup>th</sup> century, carbon nanotubes have drawn the attention of scientists and engineers over a wide range of materials sciences, due to their excellent mechanical, thermal and electrical properties. However, there are still many difficulties which are preventing the progress of using carbon nanotubes in molecular electronics, nano-devices, and nanotube biosensors. To overcome the problems regarding the application of carbon nanotubes, their chemical modification is essential. This requires purification of raw/as-prepared carbon nanotubes followed by finding the proper conditions to solubilize the purified tubes. Though the functionalization of carbon nanotubes is still in its infancy, some recently reported works regarding purification, solubilization and finally functionalization of carbon nanotubes will be presented in this review.