

Preparation and characterization of conducting polymer/carbon nanotube composites

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This presentation reports the synthesis and characterization of conducting polymer with multi-walled carbon nanotubes (MWCNT) by in situ chemical oxidation polymerization. Raman, FTIR, FESEM and HRTEM were used to characterize their structure and morphology. Structural analysis by FESEM and HRTEM showed that the conducting polymer/MWCNT composites are core-shell structures with various diameters of nanometers, depending on the content of conducting polymer. The electrical conductivities of these composites are higher than those of conducting polymer without MWCNTs.