2008년 춘계 학술대회
연구논문 초록집

2008년 4월 10일(목) - 11일(금)
대전컨벤션 센터
Therefore, present research is focused on the fabrication of high molecular PCL-

An Efficient Growth of Ag and Cu Nanoparticles on Carbon Nanotubes

A novel method for oriented and densely packed 'transition metal nanoparticles like Ag

and Cu, which was functionalized on carbon nanotubes (m-CNT) side walls were

as a support material for the dispersion and stabilization of metal nanoparticles (NPs).

Subsequently, m-CNT was transmitted by Transmission Electron Microscopy (TEM),

EDX, XRD, XPS and Thermogravimetric analysis. These hybrid materials have found

several applications in catalysis, electronic devices, optics, nanobiotechnology, etc.

Influence of Metal Ions Functionalized CNT Based Polyurethane Electroactive

Shape Memory Actuator

Polyurethane based nano particle decorated multi wall CNTs composite with were

prepared by the neat mixer process, which was followed by hot compression molding.

The morphology of metal particles functionalized carbon nanotube filler in polyurethane

matrix and resulting conductivity of the composites were investigated. Their thermal

and mechanical properties and electro active shape memory behavior were studied by

wide angle X-ray diffraction (WAXD), XPS, tensile and dynamic mechanical analysis

(UDMA). The Tgs of these composites were in range of 33-53 °C and influenced by

additional Metal functionalized CNT ratio of PU soft and hard segment. These composite

can restore their shapes almost completely attain 100% original position with addition

of less amount of CNT filler in PU matrix at applied 50°C in 10 sec. These therefore

PU/ M-CNT composites are expected to find out smart actuator application.

Preparation of a conductive multilayered film by using active pentafluorophenyl

ester modified multilayered carbon nanotubes

Preparation of a conductive multilayered film by using active pentafluorophenyl

ester modified multi-walled carbon nanotubes

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