

Multiwalled Carbon Nanotubes-incorporated Polycarbonate Microspheres

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In this study, we applied microemulsion system to incorporate multiwalled carbon nanotubes (MWCNTs) in polycarbonate (PC) microspheres at desired locations as well as to manufacture PC in the form of microspheres. The microemulsion system consists of two immiscible liquids, water and methylene chloride, and is stabilized while retaining uniform size by homogenization and use of a steric stabilizer to retain uniform emulsion. During this process, PC/MWCNT microspheres having two different conformations were produced by dispersing MWCNTs in either an aqueous phase or organic phase.