

Morphological and vibrational study of hierarchical structures presents in chitosan/MWCNT composites

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Chitosan is a biopolymer widely used in food preservation, as well as in the use to combat fungi and bacteria. While carbon nanotubes are used in various areas of science. In this work, an in-depth study of hierarchical nanomaterials that are present when CNT interacts with chitosan was developed. Using Atomic force microscopy (AFM) the formation of spherical nanoaggregates of 50 nm in diameter formed by chitosan induced by MCNTs was observed. With a scanning electron microscope (SEM), phase coexistence was observed in the nanocomposite. Transmission electron microscopy (TEM) allowed observing coated carbon nanotubes, nanotubes decorated by chitosan, as well as the formation of spherical chitosan nanoaggregates.

Biography

Luis Ivan Serrano Corrales has obtained his master degree at the age of 26 years from Universidad de Sonora and is currently a PHD student. He has published 2 papers and has international congress participation.

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