

عنوان مقاله:

Evaluation of physical properties of conductive polythiophene/TiO(2) nanocomposites prepared through a one-step "in situ" polymerization method

محل انتشار:

همایش ملی نانو فناوری و شیمی سبز (سال: 1391)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

This research work describes an efficient method to synthesize and characterization of polythiophen/ titanium dioxide (PTP/TiO(2))nanocomposites by one-step in situ polymerization of thiophene, using FeCl₃ as an oxidant in the presence of different amount of TiO(2) nanoparticles. The obtained nanocomposites were characterized by Fourier-transform infrared (FTIR), X-ray diffraction (XRD), thermogravimetric analysis (TGA), scanning electron microscope (SEM) and the conductivity by Four point probe technique. The obtained results confirmed that TiO(2) nanoparticles .are encapsulated by PTP

کلمات کلیدی:

Nanocomposite; Conducting polymers; Polythiophen; Titanium dioxide; In situ polymerization

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