

عنوان مقاله:

Synthesis, characterization and thermal study of poly (methyl methacrylate)-Co³O₄ nanocomposite film

محل انتشار:

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خلاصه مقاله:

Nanosized metal oxides dispersed polymer composites constitute a fascinating class of polymer composite materials. Synthesis of such composite materials through solvent casting enhances the polymer synthetic technology. Solvent casting method was used to prepare Cobalt oxide (Co³O₄) dispersed Poly (methyl methacrylate) (PMMA) nano composite. X-ray diffraction tool is used to know the structural behavior composite Development of the crystallinity in the composite film is observed. Scanning Electron Micrograph (SEM) tool is used for morphological study of the sample. The fine dispersion of the cobalt oxide particles is observed in the composite image. Bonding nature in the pure PMMA and composite materials are studied by FT-IR tool. This study shows the shift in some peaks and disappearance of some peaks reveals the formation of composite between PMMA and cobalt oxide. Thermal behavior of the composite is also well studied

کلمات کلیدی:

Polymer composite, Co³O₄, PMMA, Solvent casting, Crystallinity

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