

## عنوان مقاله:

THE EFFECT OF NANOCCLAY NETWORK FORMATION ON MORPHOLOGY DEVELOPMENT IN POLYMERIC NANOCOMPOSITE FIBERS

## محل انتشار:

اولین همایش ملی فناوری های نوین در شیمی و مهندسی شیمی (سال: 1392)

تعداد صفحات اصل مقاله: 7

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## خلاصه مقاله:

The aim of this work is to study the effect of organically modified montmorillonite (Cloisite 30B) network formation on the morphology development of Poly (butylene terephthalate) nanocomposites during melt spinning process. Samples varying in organoclay content prepared by melt intercalation process in a co-rotating twin screw extruder and then melt spun using a single screw extruder equipped with spinneret. The nanocomposite samples were characterized by X-ray diffraction (XRD), scanning electron microscope (SEM), and melt viscoelastic results along with mechanical analyses. The nanocomposites showed different microstructural behavior in nanoscale due to their percolation network structure under certain condition and different organoclay loadings. The results also demonstrated that the addition of only small amount of organoclay was enough to improve the properties of the PBT nanocomposite fibers

## کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/211936>

