

عنوان مقاله:

Investigation on Mechanical Properties of Natural Rubber Nanocomposites

محل انتشار:

دومین کنفرانس ملی توسعه دانش بنیان صنایع نفت، گاز و پتروشیمی و ششمین کنفرانس روز مهندسی پتروشیمی بندر امام (سال: 1394)

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خلاصه مقاله:

Natural rubber (NR) nanocomposites are manufactured at three various contents of calcium carbonate(CA) nanofiller. To achieve better filler-matrix interaction, it was decided to choose a biofiller with porous structure which could has been employed in NR-base nanocomposites comparative with CA nanofillers. First of all, the eggshell nanofiller was chosen and then the its surface area was modified with stearic acid to ameliorate the wetability toward NR matrix. Afterwards, the wetability of both sorts of nanofillers has been studied through several tests. The results are representative of this fact that employing eggshell biofiller can ultimately affect both the mechanical and morphological traits of NR nanocomposites as well as CA-based nanocomposites does. Scanning electron microscopy was utilized .on the prepared samples as an indication of nanofiller distribution and dispersion within the elastomeric matrix

کلمات کلیدی:

Eggshell bio-filler, calcium carbonate, natural rubber

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