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عنوان مقاله:

Optimization of Tensile Strength of NBR/PVC/NiFe2O4 Nanocomposites Using Response Surface Methodology

محل انتشار:

بیستمین کنفرانس شیمی فیزیک ایران (IPCC۲۰) (سال: 1396)

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خلاصه مقاله:

NBR/PVC mixtures are physical mixtures with wide commercial importance. The presence of PVC helps toimprove the ozone and ageing resistance of NBR, which enables the use of this mixture in the automotive industry. Thispaper reports the development of acrylonitrile butadiene rubber (NBR) nanocomposite toughened by the combination ofpolyvinyl chloride (PVC) and NiFe2O4NPs. NiFe2O4 NPs were synthesized by Sol–Gel Auto-Combustion route for thisstudy. Response surface methodology (RSM) was applied for optimization and modeling of the impact strength ofNBR/PVC/NiFe2O4 quaternary nanocomposite. NiFe2O4 NPs and Optimized NBR/PVC/NiFe2O4 nanocomposite werecharacterized by XRD, SEM, EDX, VSM and the mechanical properties of NBR/PVC/NiFe2O4 nanocomposite .wereinvestigated

کلمات کلیدی:

NBR; PVC; NiFe2O4; RSM, Nanocomposite

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