

## عنوان مقاله:

Investigating the In situ Free Radical Polymerization Kinetics of PS in the Prescence of Silica Nanoparticles

## محل انتشار:

هفتمین کنگره ملی مهندسی شیمی (سال: 1390)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

A number of batch polymerizations were performed to study the effect of pristine nanoparticle loading on the polymerization kinetic of styrene. For this, Conversion, molecular weight and polydispersity index (PDI) were monitored during polymerization to investigate the reaction kinetics. According to results, adding nanoparticles causes no considerable change in the kinetic curves, while there is an optimum value for nanoparticles loading in which the monomer conversion and molecular weight reaches to its maximum level. However, increasing silica content resulted in an increase in PDI values. The best improvement of monomer conversion is achieved for nanocomposites containing 5 wt. % silica nanoparticles

## کلمات کلیدی:

Polystyrene, Aerosil 200, Nanocomposite, Free Radical Polymerization

## لینک ثابت مقاله در پایگاه سیویلیکا:

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