

عنوان مقاله:

Investigation on Effects of Synthesis Parameters of Colloid Anti-Scratch Nanocomposites on Organic-Inorganic Component Coupling Efficiency

محل انتشار:

یازدهمین سمینار بین المللی علوم و تکنولوژی پلیمر (سال: 1393)

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خلاصه مقاله:

Partially nano silica encapsulated poly (Styrene) nanoparticles were synthesized via in situ mini-emulsion polymerization. Stable dispersion of nanosilica has been found to be crucial to have better control on synthesis parameters. Therefore, a fine nanosilica aqueous sol was made. The obtained particle sizes and morphologies were studied via Dynamic Light Scattering analysis (DLS) and Scanning Electron Microscopy (SEM), respectively. Particle component coupling efficiencies were determined by Energy Dispersive X-ray Analysis (EDX). An optimization was presented after investigation on the effect of major synthesis parameters (e.g. inorganic component, and monomer contents) via the quantitative analysis of EDX data. For the first time an optimization study on uniformity as well as morphological homogeneity of particles was conducted

کلمات کلیدی:

Colloidal Nanocomposites- Hybrid Structures- Mini Emulsion Polymerization- EDX Analysis- Dynamic Light Scattering

لینک ثابت مقاله در پایگاه سیویلیکا:

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