

عنوان مقاله:

Measurement of Residual Monomer in Precipitation Polymerization Method

محل انتشار:

دهمین سمینار بین المللی علوم و تکنولوژی پلیمر (سال: 1391)

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خلاصه مقاله:

Microgels that have been introduced as cross-linked polymer particles which improve thickening properties of aqueous systems [1]. This thickening agent have been widely utilized for thickeners, suspending agent and stabilizers in personal care and pharmaceutical products [2]. Also, some important issues for example chemo/bio-induced degradation and the residual monomers have not been widely studied to data. The residual monomer amount is an important factor related to the thickener production and evaluation. Therefore, the free harmful residual monomer existing into thickener polymers should be easily quantified through an accurate and reproducible method. We found that after precipitation polymerization of poly (acrylic acid) and before rewash, depending on the time of reaction and procedural conditions, the residual monomer content is different. This means that the as-synthesized gel containing high amounts of non-reacted monomer [3]. In this paper, an optimized method based on the high performance liquid chromatography (HPLC) technique for determination of the free residual monomer in Microgels samples by precipitation polymerization.

کلمات کلیدی:

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