

## عنوان مقاله:

Study on the Water-Soluble Monomers in Emulsion Ter-polymerization of Styrene/Butadiene/Acrylic Acid and Modeling with Monte Carlo Simulation

## محل انتشار:

نهمین کنگره ملی مهندسی شیمی ایران (سال: 1383)

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## خلاصه مقاله:

Emulsion polymerization of styrene/Butadiene/Acrylic Acid is simulated using Monte Carlo method. Carboxylic monomers, such as acrylic acid, are widely used in emulsion polymerization. Some important of assumption to run the simulation is: interval I is inished when all of micelles have disappeared, the rate of monomer addition depends only on the nature of the terminal group. The effects of water-soluble monomers, in this study acrylic acid (AA), in emulsion polymerization were studied in styrene/butadiene/acrylic acid. With AA addition in reaction system, duration of interval I increased and this indicate that both micellar and homogenous nucleation were carried out. The most important results in this simulation with Monte Carlo method to achieve tri- and tetra-functional branching and molecular weight distribution. Water-soluble monomers addition in emulsion polymerization has a pronounced affect .on the molecular weight distribution due to an increase in the number of polymer particles same as emulsifier effects

## کلمات کلیدی:

Styrene/Butadiene/Acrylic Acid, Emulsion polymerization, Monte Carlo method, Ter-polymerization, Simulation, Modeling

## لینک ثابت مقاله در پایگاه سیویلیکا:

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