

## عنوان مقاله:

The Comparison between Initial Charge, Shot and Modified Shot Processes and Their Effects on Macrostructure of Particles in Emulsion Copolymerization of Styrene- Butadiene- Acrylic Acid

## محل انتشار:

نهمین کنگره ملی مهندسی شیمی ایران (سال: 1383)

تعداد صفحات اصل مقاله: 10

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## خلاصه مقاله:

Carboxylated styrene- butadiene latexes with 30% solid content were prepared by emulsion copolymerization technique with initial charge and shot- addition methods. The distribution of carboxylic groups in different locations of latex system i.e. interior and surface of particles and aqueous phase during polymerization reaction was studied by conductometric back titration method (Hen method). The obtained results from shot process show that addition of acrylic acid with some water in interval III of emulsion polymerization will decrease the amount of surface bound carboxylic acids relative to initial charge method. So the process of shot- addition was modified by addition of styrene, emulsifier and initiator accompanied with acrylic acid and water in conversions above 80% in the second stage. The analysis of the obtained latex shows that the amount of surface bound acid was raised from 58% for initial charge .method to 72% for this modified technique

## کلمات کلیدی:

Emulsion polymerization, Carboxylated SBR, Surface bound acid, Conductometric back titration, Initial charge process, Shot- addition process

## لینک ثابت مقاله در پایگاه سیویلیکا:

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