

عنوان مقاله:

Kinetic Evolution of Emulsion Polymerisation of Butyl Acrylate

محل انتشار:

پنجمین کنگره بین المللی مهندسی شیمی (سال: 1386)

تعداد صفحات اصل مقاله: 8

نویسنده:

Farshchi Tabrizi - University of Sistan and Baluchestan, Dept. of Chemical Engineering, Zahedan, Iran

خلاصه مقاله:

The batch emulsion polymerisation of butyl acrylate (BA) in the presence of Sodium dodecyl Sulphate as emulsifier and potassium persulphate as initiator was investigated at low concentration of monomer. The methods of gravimetry and calorimetry were used to estimate the average number of radicals per particle and it seems that the method of gravimetry is not enough safe to evaluate the variation of n . The values of n which obtained from calorimetry, are usually greater even to 25% than the results of gravimetry. The results also showed that the average number of radicals per particle is proportional to surface of particles. A semi-empirical model for n as a function of conversion, temperature and particle diameter is presented. Monomer concentration in particles $[M]_p$, and particle number N_p , can also be presented as a function of conversion and particle diameter, therefore the rate of polymerisation would be presented in terms of conversion, temperature and particle diameter which gives a suitable tool for on-line monitoring and process control.

کلمات کلیدی:

Emulsion polymerisation, Butyl Acrylate, Kinetics

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/45870>

