

عنوان مقاله:

Effects of impeller system on the solids distribution in a stirred tank

محل انتشار:

هفتمین کنگره ملی مهندسی شیمی (سال: 1390)

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خلاصه مقاله:

Supension of solid particles in a liquid phase is one of the key processes in the chemical industries and complete and homogeneous suspensions are of paramount importance in respect of the process type and may be the limiting factors in the success or failure of a process. In this work, homogeneity extent and minimum impeller speed for complete solid suspension (N_{js}) have been measured in stirred tank reactors. Three impeller types, ie propeller impeller, Rushton turbine and four-pitched blade disk turbine with different combinations were used. The effects of impeller type and its diameter, impeller spacing, multi impeller combination and impeller flow pattern were studied.

Moreover, N_{js} speed was determined using three different methods with a good consistency

کلمات کلیدی:

Solid suspension, Stirred tank reactor, Multi-impeller, Homogeneity, N_{js} speed

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