## عنوان مقاله:

Effect of volumetric flow rate on axial dispersion coefficient of fluid in liquid-solid bed with RTD curves studies

## محل انتشار:

پنجمین کنگره بین المللی مهندسی شیمی (سال: 1386)

تعداد صفحات اصل مقاله: 11

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## خلاصه مقاله:

Liquid phase RTD curves were investigated in classical fixed and fluidized bed regimes with high density particles. Using an impulse tracer technique in a column of 5cm in diameter and height of 1.2m, liquid's RTD, mean residence time (MRT) and axial dispersion coefficient (ADC) were determined. The effect of liquid velocity and solid's density were studied on hydrodynamics of bed. ADC varied from 1.62 to 8.23 for the particle Reynolds number of 43.18 to 279.41. ADC increases with increasing liquid superficial velocity. As difference between solid and liquid density increases, ADC decreases in an identical Reynolds number.

## کلمات کلیدی:

liquid-solid fluidized bed, axial dispersion coefficient (ADC), residence time distribution (RTD) curves, hydrodynamics