Residence Time Distribution of Repeseed Meal in Kuhni Extraction

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ABSTRACT

The residence time of rapeseed meal in a Kuhni extraction column was studied using the pulse input technique. The soild concentration in the liquid phase was monitored by laser beam. Data acquistion was achieved by using a personal computer through an A/D-D/A interface card. It was found that the mean residence time of the solid of uniform particle size is a function of agitation speed.the mean residence time increased with increasing rpm of the mixing turbine. At speed higher than 1100rpm, the mean residence time increased linearly with the agitation speed. The mean residence time.for particle size of 30 mesh,ranged from 110 to 220 sec within mixing rate of 1000 to 6000 rpm (column height was 220 cm). The variance of the response curves, at different axial positions were aslo used to analyze the dispersion phenomena of such extraction operation.

Keywords : rapessed ; Kuhni extraction column ; residence time

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