

MATHEMATICAL MODELING OF MASS TRANSFER IN CRITICAL REGIMES OF VERTICAL TWO-PHASE FLOWS

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A system of differential equations describing main regularities of mass transfer process in critical regimes of two-phase flows is formed. Using this system, several similarity criteria are determined.

Equations of discrete-stationary solid phase distribution in such flows along the channel height are derived.

The analysis of this system allowed us to define optimal conditions of the process of bulk materials classification in vertical channels.