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A METHOD FOR STABILITY ANALYSIS OF THE NON-LINEAR HEAT AND MASS TRANSFER PROCESSES

ABSTRACT

Many systems with non-linear heat and mass transfer processes might be unstable at certain conditions. Small disturbances might bring out them of their equilibrium state, after which they achieve itself to a new stable state. The method developed here concerns a non-linear analysis of hydrodynamic stability of the systems with intensive heat and mass transfer. It allows the determination of the kinetic energy distribution between the main flow and the disturbance, when the equilibrium value of the disturbance amplitude is determined.

KEYWORDS

[non-linear stability](#), [method of analysis](#), [heat and mass transfer](#)

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