

## CHAIN FRACTIONS IN THE MATHEMATICAL MODEL OF MULTI-STAGE SEPARATION

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Multi-stage (cascade) separation is used in various branches of industry for separating solid bulk materials into fractions by particle sizes or densities. Separation of mixtures of liquids, gases and isotopes into components is also realized by multi-stage processes.

Despite the different physical nature of these processes, all of them are characterized by common regularities of cascade separation. While developing a detailed mathematical model of such processes, we have formulated their principal regularities. In this sense, they are of generalizing character. We have succeeded to describe the cascade separation mechanism most comprehensively using chain fractions.