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Study of mass transfer efficiency in the vortex rectification steps during processing of vegetable raw materials

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Abstract

The article deals with a study efficiency of the distillation column equipped with contact eddy steps for processing of vegetable raw materials. Rectification is widely used: in the technology of complex processing of timber; in the wood-chemical industry in the preparation of consumer products; the reduction of the extraction solution during extraction of bioactive substances from plant material; in chemical processing technology in the production of wood ethanol; increasing the processing of natural waste gasification and use synthesis gas for the regeneration step biopolymer solvents (methylene chloride, sodium hypochlorite, hexane, etc.), which also demand high performance and efficient distillation columns. In general, distillation subject multicomponent mixture usually azeotrope having boiling point near that causes their use to the separation of multistage distillation columns. At the same time there are different ways of rectifying such as azeotropic, extractive, molecular, fractional, partial. Therefore, issues of improving the efficiency of equipment are urgent rectification.

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