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**PREPARATIVE SIMULATED DISTILLATION IN THE TECHNOLOGICAL PROCESS
 MANAGEMENT OF NATURAL FLAVOR OBTAINING**

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ABSTRACT

In countries around the world, physical distillation process management of crude petroleum is performed on the results of preparative simulated distillation, which greatly improves the quality of petroleum products and makes its obtaining cheaper.

The research purpose was the use of preparative imitated distillation for management of essential oil distillation modes into fractions of different flavor, stable and harmonic characteristics. These fractions are natural concentrated flavors, as well as promising as components of combinational flavors.

Researchers are actual in flavor technologies, quality control of raw material with predicting of its perspective and trends of use in flavored products.

Operative (30 - 40 minutes) installation method of boiling range temperature of essential oil components was elaborated to achieve this purpose. This allows to manage organoleptic faction properties and to plan their flavor. Thus it is sufficient to have essential oil samples in grams for such information obtaining which is in 200 times smaller than in real industrial distillation.

Nonpolar stationary phase HP-5MS is theoretically and practically substantiated; quartz capillary column 30mx0.25mmx0.25mkm which ensures straight line position close to one another on the graph "retention value - boiling temperature" is chosen. The efficiency of such column is 160 thousand theoretical plates. Conditions of the analysis that ensure maximum correlation between boiling temperatures and Kovats index of aromatic components of essential oils are investigated.

For essential oil fraction obtaining in individual mode of preparative distillation, the fundamentals of resolution column production with the 400 theoretical plates were elaborated; was selected the solid carrier - chromosorb A (manufacturer is "Johns Manville" (USA) and stationary phase - PMS-100 by the production of "Reahim" ("Peaxim"). Process conditions were formed. They are: injector temperature is 200 ° C, column thermostat temperature is 70 - 200 ° C, detector temperature is 200 ° C; carrier gas consumption is 1.0 cm³ / min, hydrogen consumption is 33 cm³ / min, air consumption is 330 cm³ / min, sample volume is 0.5-0.8 mc.

Essential oil identity is proved on all control characteristics during the comparative studies of fractions, obtained by fractional distillation under vacuum and preparative simulated distillation.

KEY WORDS

Simulated distillation, essential oil, preparative excretion, flavor.

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