

**HYDROCOLLOIDS IN THE FORMATION OF A STABLE EMULSION SYSTEM**

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**ABSTRACT**

Constant attention to scientist's hydrocolloids due to their importance for food technology. Despite the large number of studies on the physical and chemical properties of hydrocolloids, not scientifically based data on their use in food emulsions.

Based on the analysis of scientific sources and recommendations for the use of ingredients Manufacturers hydro colloids (gum arabic and starch) in food emulsions conducted experimental research in the laboratory for their application.

Using the theory of emulsion stability depending on the ratio of water and oil phases, the process of obtaining pre-emulsion and mode of homogenization emulsion systems have been developed recipes food emulsions using different amounts of stabilizer in the oil phase of constant and variable samples emulsions with oil phase and a constant number of stabilizer.

The analysis of indicators of the finished emulsions, such as measured by their particle size, viscosity, turbidity. Chosen optimum parameters stages of the process, given the savings of heat and electricity, time, temperature and stirring speed the dissolution of the ingredients in relevant phases of the desired parameters of the finished product.

Fit, pre-emulsion mixing modes (temperature, speed and time), the difference in pressure homogenizer and homogenization of the number of cycles by which regulated particle size, turbidity and viscosity.

According to this analysis, the methods of application of gum arabic and starch as stabilizer (emulsifier) in food emulsions.

The results can be the basis for creating technology of emulsions as a class of food. Creating a stable emulsion system is an important issue in the food industry, so these studies are useful and important for the development of new food products.

**KEY WORDS**

Aromatic emulsion, hydrocolloid, stabilizer, starch, gum-arabic

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