

Universitatea Tehnică a Moldovei

**TEHNOLOGIA DE FABRICARE A UNUI SOS DE TIP
MAIONEZ CU VALOAREA BIOLOGICĂ RIDICATĂ**

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Tehnologia de fabricare a unui sos de tip maionez cu valoarea biologică ridicată

Teză de master

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Rezumat

al tezei de master cu titlu "Tehnologia de fabricare a unui sos de tip maionez cu valoarea biologică ridicată "

O alimentație echilibrată a unei persoane include păstrarea anumitor relații între produsele alimentare și substanțe biologice active, care asigură funcționarea normală a organismului. Lipidele sunt printre acei componenți ai alimentelor care determină în mare măsură proprietățile gustative, valoarea lor nutritivă, biologică și energetică.

Principalul factor care caracterizează eficiența utilizării lipidelor alimentare este echilibrul în componența lor a acizilor grași, în special a celor polinesaturați. Combinarea rațională a mai multor surse de lipide la elaborarea de noi tipuri de alimente grase este de mare importanță. În lucrarea dată a fost elaborată tehnologia de obținere a emulsiilor de tip maionez pe bază de amestec de ulei de floarea soarelui și ulei din semințe de struguri. Astfel s-au obținut emulsii cu 50% grăsime, cu diferite concentrații a uleiului de semințe de struguri. Pentru a stabili aceste emulsii din punct de vedere oxidativ, în rețetă s-a introdus extract natural cu potențial antioxidant sporit. Au fost realizate cercetări asupra potențialului antioxidant al extractelor obținute din semințe de struguri. Pentru a obține rezultate relevante acești parametri au fost studiate prin metode standardizate la nivel național și internațional. Cea mai mare cantitate de polifenoli, a fost obținută în extractele hidroalcoolice ale pielii și semințelor de struguri de soi Moldova 105,79 (Moldova) mg GAE/g, activitatea antioxidantă DPPH a căruia a constituit 71.54 %.

S-au determinat indicii de calitate a emulsiilor cercetate, pe măsura creșterii concentrației uleiului de semințe de struguri s-a constatat și creșterea cantității produșilor primari și secundari ai oxidării lipidice. Determinarea indicilor de calitate a emulsiilor a confirmat rolul pozitiv al introducerii extractelor naturale în rețeta emulsiilor, înregistrându-se micșorarea valorii acestor indici. Ținând cont de rezultatele obținute, pentru producerea emulsiilor cu valori biologice ridicate, care ar asigura un aport optim de acizi grași polinesaturați, cu proprietăți senzoriale bune, indicii de calitate al cărora să nu fie mai prejos decât al emulsiilor deja existente se recomandă utilizarea uleiului de semințe de struguri în concentrație de 10%.

Cuvinte cheie: emulsii alimentare, ulei de semințe de struguri, stabilitate oxidativă, extracție, polifenoli, potențial antioxidant.

Abstract

A balanced diet of a person includes maintaining of certain relationships between food products and biologically active substances, which ensure the normal functioning of the human body. Lipids are among those components of foodstuffs which largely determine the properties of taste, nutritional, biological and energy value.

The main factor that characterizes the efficiency of using dietary fat is balance in their fatty acid composition, especially polyunsaturated fatty acids. Rational combination of several sources of lipids in the development of new types of fatty foods is of high importance economically.

In the present work was elaborated obtaining technology of mayonnaise type emulsions based on mixture of sunflower oil and grape seed oil. Therefore were obtained emulsions with 50% fat, containing different concentrations of grape seed oil. To stabilize these emulsions in terms of lipid oxidation, in the recipe was introduced natural extracts with high antiradical potential.

It is well known that grape seed contains high amounts of antioxidants, namely polyphenols (juglone, rutin, ellagic acide, tannins). Therefore have been done researches on the antioxidant potential of extracts obtained from the grape seed. In order to obtain relevant results, these parameters were studied using standardized methods at national and international level. The highest amount of polyphenols was obtained in the hydroalcoholic extracts of the skin and seeds of grapes of the Moldova variety 105.79 (Moldova) mg GAE/g, the DPPH antioxidant activity of which was 71.54%..

Were determined quality indices for the investigated emulsions, with increasing concentrations of grape seed oil was found and the increase of the amount of primary and secondary products of lipid oxidation. Determination of emulsion quality indicators confirmed the positive role of the introduction of natural extracts in the formulation of emulsions, with up to decrease the value of these indices. Taking into consideration the results, to produce emulsions with functional properties that would ensure an optimal intake of polyunsaturated fatty acids with special sensory properties, quality indices of which are not inferior than the existing emulsions it is recommended to use the walnut oil concentration 20%.

Keywords: food emulsions, grape seed oil, oxidative stability, extraction, polyphenols, antioxidant potential.

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