THE INVESTIGATION OF CONDITIONS OF THE ETHANOL- 
AND WATER-SOLUBLE SUBSTANCES EXTRACTION 
FROM CULTIVATED MUSHROOMS

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The properties of mushroom ethanol- and water-soluble fractions are being investigated all over the world. However, there are no the proved conditions of extracting these substances from mushrooms. The purpose of this research was to determine the conditions of the ethanol- and water-soluble substances extraction from cultured mushrooms (Agaricus bisporus, Pleurotus ostreatus). It was shown that the rational conditions of the ethanol-soluble substances extraction from mushrooms are treatment of the raw materials with 70% ethanol during 30-45 min at 60°C. The maximum possible yield of water-soluble substances was obtained while processing the mushrooms with water at boiling temperature during 60 min. Carbohydrates, protein substances and melanins were macrocomponents of the extract. The weight fraction of carbohydrates in the solution increases during the decrease in temperature from 100 °C to 40 °C.

Keywords: ethanol-soluble substances, water-soluble substances, Agaricus bisporus, Pleurotus ostreatus.