



**ПРИРОДНО - МАТЕМАТИЧКИ ФАКУЛТЕТ
НИШ**

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Abstract, AB :	The extraction and the efficiency of extraction of phenolic compounds and metal ions of barley and hop by maceration at various operating conditions (concentration of the aqueous solution of ethanol, hydromodulus, acid concentration, time and temperature of extraction) were examined. The coefficients of the quick (b) and the slow extraction (k) stages of phenolic compounds in barley and hop as well as the thermodynamic parameters were modelled using two kinetic models: the model based on the theory of non-stationary diffusion through solid material and the empirical model of Ponomarev. The content of metal ions, phenolic compounds and antioxidant activity of a larger number of barley, hop and beer samples were determined using the spectrophotometry, HPLC-DAD and ICP-OES method. The results are discussed and compared with published data.
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