

**THE HIGH HYDROSTATIC PRESSURE TREATMENT OF FRESH CARP
(*CYPRIVS CARPIO*) AND CHANGES IN ITS PROTEINS**

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The high hydrostatic pressure treatment is an alternative and non-thermal preservation process, which inactivates (in part or completely) the microorganisms in food. During the analysis, fresh carp was treated at pressures 150, 200, 250, 300 and 350 MPa, respectively, for 5 minutes. Color, pH, microbiological, thermodynamical (DSC) and electrophoretic (SDS-PAGE) analyses were used to the observation of changes. During the measurements we found that the treatments at pressure 250 MPa were the optimal ones, because at these pressure values the microbiological stability increased, and the changes in organoleptic properties of the products were unremarkable. The high pressure treatment could reduce the initial total cell count by one order of magnitude while proteins could retain their native state. It can be concluded that in case of fresh carp, pressure values higher than 250 MPa should not be used because the proteins had lost their native state and partly or completely denatured.

Keywords: high hydrostatic pressure treatment, carp, preservation, differential scanning calorimetry, electrophoresis