



THE INFLUENCE OF THE PROCESS PARAMETERS OF THE BIOPOLYMER POUCHES SYNTHESIS ON THE QUALITY OF PACKAGED EDIBLE OIL

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ABSTRACT

Application of high oxygen-barrier and antioxidative edible materials has been in focus of current research, since oxidation is a major deleterious factor that reduces shelf-life of lipid-containing food products. Oxidation affects the formation of toxic aldehydes through the degradation of polyunsaturated fatty acids, reducing the nutritional value of food, but also leads to significant changes in sensory properties. Biopolymer packaging materials may provide good alternative to plastic, due to excellent barrier properties to gases, their nature and biodegradability. In this paper, pumpkin oil cake (PuOC) pouches were prepared under two different temperature treatments, and with two drying conditions. As a control, original oil packed in glass bottle was used. The influence of process parameters (temperature of film-forming solution preparation and drying atmosphere with and without etheric oil) on edible flaxseed oil chemical and sensory characteristics was examined. Results showed that PuOC-based films ensure good both chemical and sensory quality of oil, applying all examined conditions, compared to control.

Keywords: packaging, pouches, pumpkin oil cake, flaxseed oil, quality

Acknowledgements: Research within this work was financed by the Ministry of Science, Technological Development and Innovation of the Republic of Serbia, program number: 451-03-65/2024-03/ 200134 and 451-03-66/2024-03/ 200134