

4th International Conference and Exhibition on

Food Processing & Technology

August 10-12, 2015 London, UK

Baked dessert-muffins as functional and low energy food

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In order to obtain a product with such properties that will positively affect human health four types of muffins with different composition were prepared. Referent muffins were prepared by standard recipe and they served as control samples in the assessment of the other types of muffins. In the second group of muffins sugar was replaced with stevia (a natural non-caloric sweetener) in concentration of 0,16 g stevia per 100g dough. The third type of muffins contained prebiotic (galacto-oligosaharides) obtained by enzyme conversion of lactose. The fourth type of muffins was covered with probiotic dissolved in gelatin film. In the last group the muffins contained sinbiotic (probiotic and prebiotic). All muffins were examined for their physical, chemical and sensory properties. The dough was examined in terms of its rheological properties, specific gravity and microscopic appearance. The texture of the baked muffins was evaluated according to two different standard methods, while the visual changes were detected by measuring the color of the muffins. The stability and shelf-life of the product was predicted by determining the water activity and dry weight. A complete sensory analysis for all kind of muffins was also performed. According to the consumers, the best textural characteristics were noticed in muffins with prebiotics, while muffins with probiotic had the best overall acceptability by the consumers. After storage period of 90 days, the muffins with prebiotic, probiotic and sinbiotic did not exhibit any changes, whereas the referent muffins and the ones with stevia developed mold.

Biography

Aleksandra Sarafimova, Grad.engineer technologist was born on March 13, 1989. She has graduated at Faculty of Technology and Metalurgy in Skopje, R. of Macedonia, at the Program of Food Technology and Biotechnology. She was awarded with "Engineer's ring" in 2014 for the best student at the Faculty of Technology and Metalurgy in Skopje in the academic year of 2012/2013 by Macedonian President Djordje Ivanov. She is employed at the Department for Research and Development at the Food Company "Makprogres" in Vinica, R. of Macedoni, working on processing and innovation of food products. She went to several training sessions in conditory in Sweden, Germany, Serbia and Bulgaria.

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