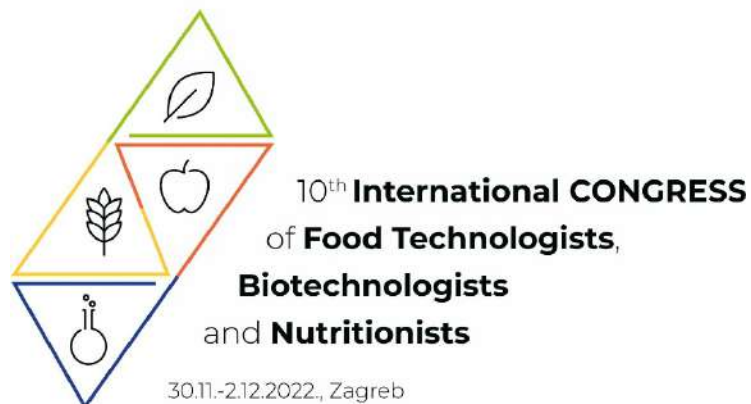


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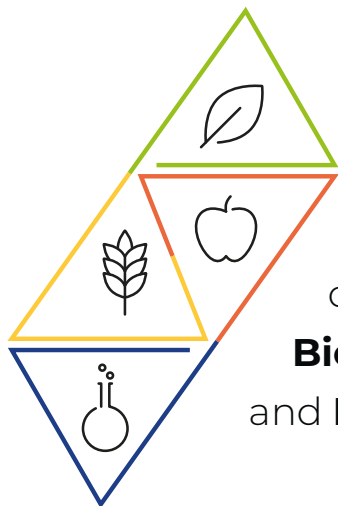


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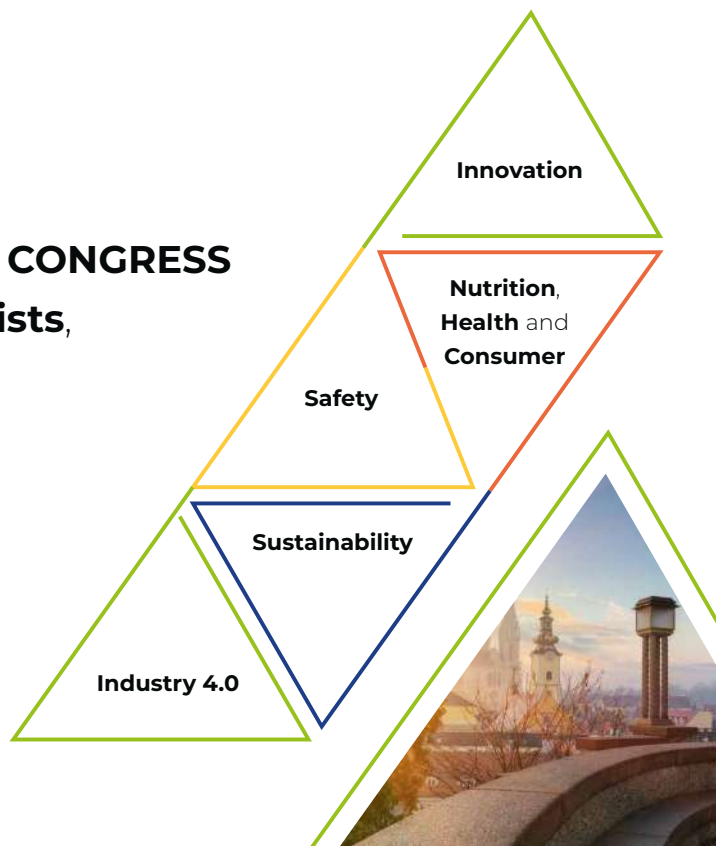


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10th International CONGRESS
of **Food Technologists,**
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and **Nutritionists**



PROGRAM



Smart Food for a **Healthy Planet**
and **Human Prosperity**



Wednesday, **November 30th 2022**
Friday, **December 2nd 2022**



Hotel Academia
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The effects of thermal processes on the quality of preterm human milk

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The storage of human milk, the gold standard in infant nutrition, in a milk bank requires its freezing and then a pasteurization process immediately before its use in the diet of preterm infants. Thermal processes affect the composition and quality of milk. The objective of this research was to examine the influence of thermal processes on nutritive properties and quality of preterm milk. The effects of thermal processes were estimated on mature preterm milk of 30 breastfeeding women. Total proteins, lipids, lactose and minerals were determined before and after thermal processing and supplementation of mature preterm milk with fortifier. The protein concentration decreased after frozen storage and pasteurization. Pasteurization further reduced the lipid concentration after freezing, while there was no effect on lactose concentration. The mineral contents of mature milk were lower than necessary for the optimal growth of preterm infants, and thermal processes did not change its concentration. The supplementation of mature milk with a fortifier increased the concentration of macronutrients and micronutrients. Our study examined the influence of thermal processes on the nutritive properties of infant meals for preterm babies. Storage and pasteurization processes affect the basic nutritional composition and quality of preterm human milk. In order to ensure adequate nutrition for preterm infants with preterm human milk, supplementation, especially with high concentrations of proteins and lipids, is necessary after thermal treatments.