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ABSTRACT BOOK



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EVALUATION OF BOTTLED WATER QUALITY FROM THE MARKET OF THE REPUBLIC OF SERBIA

1. Monitoring Chemicals for a Safer Environment

#P1001

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Abstract

The term bottled water applies for water packaged in a health-correct packaging available in the market for human consumption. Consumers still have insufficient knowledge of the importance of certain water ingredients and their harmful or beneficial effect on the human organism. There is not enough expert information about the harmfulness of certain ingredients in the water, even if many countries of the world have adopted legal acts in which quality parameters of bottled water are standardized¹. In such declared water, physiological characteristics of water, redox status and the consequences of bad health effects are neglected due to excessive consumption of waters with high mineral content. Due to the increased content of mineral substances and high sodium intake, the allowed daily intake should be declared for water loaded with mineral substances. The oxide-reduction potential of water, E_{ROX} , represents the mixed potential of all present redox pairs and directly affects the behavior of water relative to the agents with it comes into contact. In this research, we measured all parameters that define redox status: pH value, redox potential and rH_2 factor in a wide range of bottled waters available on the market of the Republic of Serbia. The substances that are declared as potentially toxic² were detected by HPLC-MS/MS. The results pointed to the necessity of a detailed declaration of bottled water to decrease the possible consequences of bad effects on health due to excessive consumption of water rich with minerals.

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References

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