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## Analysis of Quality Mineral Water of Serbia: Region Arandjelovac

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### ABSTRACT

In this paper it is presented the analysis of basic physical and chemical parameters, alkalinity and acidity, the analysis of kations, anions, heavy metals, microbiological analysis and determination of uranium content in waters of Serbia from 10 springs of Arandjelovac region and 2 samples of bottled drinking water. It is done by different methods of analysis according to which conclusion about the content and the quality of these waters can be made. The pH value of analysed waters shows that waters from springs Maiden spring, Ježovac, Vrelo and Svinčine are slightly acid, while mineral waters from springs Aleksijević, Exploitation and Talpara are slightly basic. The sample from Olga's spring has slightly lower pH value. According to Regulation on the hygiene of drinking water, conductivity should be less than 1000  $\mu\text{S}/\text{cm}$ . This condition is fulfilled by waters from springs Aleksijević, Talpara (ordinary), Maiden and Olga's spring, Svinčine and water from city supply system. Springs Ježovac and Vrelo have slightly increased conductivity, while springs Exploitation and Talpara have conductivity significantly above the allowed values (mineral). Analysed natural mineral waters contain only hydrogencarbonates (bicarbonate). According to the content of bicarbonate it was concluded that samples from springs Exploitation, Talpara (mineral), Vrelo and Svinčine belong to the category of bicarbonate waters, as the content of hydrogencarbonate in these samples is higher than 600 mg/dm<sup>3</sup>. Analysed mineral waters don't show acidity towards methyl orange, which means that acidity of analysed waters comes from dissolved carbon acid.

### KEYWORDS

Mineral Water; Water Quality; Bicarbonate Water; Acidity; Alkalinity

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