



## The influence of pH on removal of H<sub>2</sub>S and natural organic matter by anion resin

Milka M. Vidović<sup>a\*</sup>, Jovan N. Jovičević<sup>b</sup>, Jelena D. Krstić<sup>a</sup>, Ilija D. Tomić<sup>a</sup>, Saša S. Rogan<sup>a</sup>

<sup>a</sup>University of Belgrade, The Institute of Chemistry, Technology and Metallurgy, Department for Ecology and Technoeconomics, 12 Njegoševa, 11000 Belgrade, Serbia

Tel. +381 11 3370225; Fax +381 11 3370225; e-mail: mivibgd@yahoo.com

<sup>b</sup>University of Prishtina, Faculty of Sciences, Chemistry Department, 38220 K. Mitrovica, Serbia

Received 5 October 2009; Accepted 18 February 2010

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### ABSTRACT

A number of experiments with “specific” ground water from the Pannonian Plains (the Republic of Serbia) were conducted in order to define a technological process for drinking water treatment. The “specificity” of this raw water is reflected in increased pH value and increased concentrations of natural organic matter, ammonia, hydrogen-sulphide and some toxic metals. Removal of natural organic matter by the basic macroporous resins in acid medium (pH 6.6–7.2) ranged up to 92% of the input concentration, and of hydrogen-sulphide up to 60%. The remaining hydrogensulphide, that was not eliminated on the macroporous resin, was completely removed by adsorption on the Filtersorb FMH. The correlation between the concentration of natural organic matter and the UV extinction in raw and processed water, both in the acid and in the alkaline media, was established. The adsorption of natural organic matter on macroporous resins is more efficient in the alkaline medium than in the acid one.

*Keywords:* Hydrogen-sulphide; Natural organicmatter; Anion resin; UV extinction; Redox potential

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\* Corresponding author.