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Characterization of various drinking waters by new potentiometric taste sensor with lipid, lipid like-polymer membranes

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ABSTRACT

A new sensing system comprising five all-solid-state electrodes with lipid, lipid like-polymer membranes was applied for rapid qualitative and quantitative analysis of various drinking waters. The results elaborated by chemometric methods revealed sensitivity to CO_2 content in drinking water, suggesting that this sensing system could be used as a taste sensor. The ability of taste sensor to perform quantitative analysis of minerals content (Ca^{2+}, Na^+, Mg^{2+}, K^+, F^-, Cl^-, HCO_3^-, SiO_2) concentration in water was also demonstrated. The developed sensing system seems to be promising solution for the analysis of treated drinking water.

Keywords: Drinking water quality; Taste sensor

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