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Qualitative Method to Control Toxic Impurities in Drinking Water

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This paper presents the capabilities of the laser spectroscopy method for monitoring the concentration of dissolved organic impurities of toxic substances. The method of laser fluorometry that is based on the principle of calibration of the fluorescence signal of a dissolved matter to the internal standard – the Raman scattering signal of water, allows performing a quantitative assessment of the presence of harmful impurities. This method proves to be very promising due to its accuracy and expressiveness. The sensitivity of this method is sufficient enough to detect concentrations of the majority of studied specimens dissolved in water that exceed MCL. The effect of UV light exposure on some specimens was studied as well.