



Influence of complexation phenomena with multivalent cations on the analysis of glyphosate and aminomethyl phosphonic acid in water

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Résumé en anglais	Experimental and theoretical influence of multivalent cations on the analysis of glyphosate and aminomethyl phosphonic acid (AMPA) was studied in pure water and in one surface water. The procedure chosen, based on derivatization with FMOC-Cl, HPLC separation, and fluorescence detection, appears highly affected at cations concentrations current in natural waters. A detailed speciation study performed with the VMINTEQ software strongly suggests that the complexes formed between analytes and cations do not dissociate during the reaction and do not react with the derivatization agent, so that only the free forms are derivatized. These results point out the necessity of a pre-treatment to prevent these interferences, even in low salinity waters. The different ways conceivable are discussed in terms of kinetic and thermodynamic considerations.
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