Extraction and identification of herbicide Glyphosate from natural water with different characteristics

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Determination of glyphosate in natural water with different characteristics involves the derivatization with 9-fluorenylmethylchloroformiate (FMOCCL) in borate buffer and detection based on High Performance Liquid Chromatography (HPLC) coupled to fluorescent detector (LC-FL). The experimental results show the influence of physicalchemical water characteristics (conductivity, chloride, sulphate, Ca and Na content) on the derivatization rate of herbicide glyphosate from water samples. Depending on the sample composition the fluorimetric response was different for the same concentration of glyphosate and decresed in direct proportion to the increasing conductivity and ionic concentration in the sample.