

**TRENDS IN THE SPECIATION ANALYSIS IN ENVIRONMENTAL
SAMPLES USING HYPHENATED TECHNIQUES**

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ABSTRACT

The paper refers to the trends in the speciation analysis in environmental samples using hyphenated techniques. Tables are given of the different species analysed in water, soil and biological materials, along with the coupling techniques used. HPLC combined with ICP-MS showed the most rapid increase. However, there are few disadvantages associated with HPLC-ICP-MS, mainly the high cost of specific element detector both in purchase price and running cost.

For routine analysis the most suitable method seems to be, for the majority of the environmental samples, the HPLC method coupled either with FAAS and ETAAS or for specific element cases with electroanalytical techniques.

Although the choice of the specific detector is very important, the most critical stages in environmental speciation analysis remains the sampling, sample storage and pretreatment.