

## **ELEMENT SPECIATION IN WATERS - ANALYTICAL STRATEGY**

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### **ABSTRACT**

Speciation continues to be the major interest in water analysis because of differences in toxicity associated with elements in different chemical forms. Strategies of procedures are outlined and attention is drawn to many difficulties that be encountered. These include the complexity of the sample (particulate matter, dissolved species, etc.), insufficient selectivity of separation of different forms, fortuitous contamination with elements determined, breaking-up of the original bindings (complexation, chemisorption, coprecipitation, etc.). The collection and storage of water samples, especially for speciation studies at trace concentrations, is a critical prerequisite to a valid interpretation of the resultant analytical data. Fractionation at sample site is strongly recommended, especially for samples with transformation-sensitive species.