

Critical Considerations for Data Quality in Elemental Speciation

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The application of metalloid speciation analyses has increased significantly over the past two decades which necessitates a harmonized approach to quality. Salient variables associated with the pursuit of method validation and routine application of analytical methods for the quantitation of molecules containing metals and halogens will be discussed. The complexity of elemental speciation demands focus specific to the target molecules and sample matrices; thus, information will be presented in consideration of this premise. Discussions will include, but not limited to: sample preparation, holding times, analytical method requirements, integrated quality control parameters, targeting non-target analytes, and instrument component tracking requirements. All analytical chemistry practitioners and personnel associated with the application of elemental speciation data are recommended to attend this presentation.