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RECENT ADVANCES AND APPLICATIONS IN HEXAPOLE ICP-MS

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The use of a RF only hexapole collision cell between the sampling interface and mass analyser has been shown to have a number of benefits in ICP-MS. The ion energy spread of the analyte ions is reduced to <1eV due to collisions with gases in the hexapole. This in turn improves spectral qualities of resolution and peak shape. The introduction of trace levels of gases into the HEX™ is also used to disassociate molecular species and so produce a mass spectrum free from argon interferences, especially important in the transition element region.

The advantages of the HEX™ technology will be presented with demonstrations of its ability to remove Ar based interferences in ICP-MS. Amongst the applications presented, will be the determination of arsenic in seawater (NASS 3 certified reference material) using a simple on-line cation exchange to remove calcium and sodium from the matrix prior to analysis by ICP-HEX-MS.