

ELEMENTAL SPECIATION BY OPTICAL EMISSION MICROPLASMA SPECTROMETRY: THE CASE FOR CHROMIUM AND ARSENIC. Daniel A. Cebula, Liaba Quadeer, V. Zhou, U. Dayal, M. J. W. Thiessen and **Vassili Karanassios**, University of Waterloo, Waterloo, ON, Canada. (vassili.karanassios@uwaterloo.ca)

The determination of the elemental concentration of Chromium species in water samples is of significant importance due to the toxicological effects of the different oxidation states. For example, Cr^{3+} is an essential micronutrient whereas Cr^{6+} is carcinogenic. Similar argument applies to Arsenic species with different oxidation states. In this presentation, speciation of Cr and Arsenic will be discussed in detail. Concentration determinations were accomplished using a battery-operated microplasma.