



# **SEMINAR ANNOUNCEMENT**

**“Effect of Laser Hardening on Skimmer Cone in the Formation of Poly ions in the Inductively Coupled Plasma Mass Spectrometry”**

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The inductively-coupled plasma ion source for mass spectrometry (ICP-MS) is very sensitive for multi-element analysis with detection limits down to sub part per trillion (ppt). Polyatomic ions which could be formed in the mass spectra may interfere in the analysis of some elements. Experimental conditions have great influences on the formation of polyatomic ions. The skimmer materials (Au, Ag, Ni, Cu and Al) are participating in the formation of polyatomic ions. Heats of formation of polyatomic species formed from the skimmer materials such as: AuX, AgX, NiX, CuX and AlX, where X=Ar, O, N and H, are calculated by Gaussian program (G94W). High intensity Excimer laser beam is used for increasing the skimmer hardness. Changes in laser surface hardening of Cu skimmer and Ni-Cr coated Cu skimmer are observed and their effects on polyatomic ions intensities before and after laser hardening are recorded.