

## Inductively coupled plasma optical emission spectroscopy Varian ICP-OES 720-ES

[http://www.varianinc.com/cgi-bin/nav?products/spectr/icpoes/720-ES\\_and\\_730-ES\\_Series/index&cid=HFIH](http://www.varianinc.com/cgi-bin/nav?products/spectr/icpoes/720-ES_and_730-ES_Series/index&cid=HFIH)

Room 177, Chemistry Building



ICP-OES is an analytical method used to determine elemental composition in the sub-ppm range. In the ICP-OES instrument, an ICP source dissociates the sample into its constituent atoms or ions and excites them so that they emit light of a characteristic wavelength. Many elements can be screened per single sample run of less than one minute and the samples can be analyzed in a variety of aqueous or organic matrices. The detection limit of the instrument is  $\leq 1$  ppm. Solid samples must be dissolved or digested to run on ICP. 4-5 mL of the sample is required for a good run, smaller samples can be diluted to this volume if necessary. A minimum of three standard solutions is needed for calibration, for all elements of interest. These standards should have a concentration near the expected concentration for the sample. Commercial standards are available for many elements.

### **User fees:**

\$20 for the first two samples per element

\$5 for each additional sample

\$10 for each additional element

Please contact Larissa Stebounova ([larissa-stebounova@uiowa.edu](mailto:larissa-stebounova@uiowa.edu)) for scheduling and training information.