

**DETERMINATION OF ANTIMONY BY ON-LINE
ELECTROCHEMICAL PRECONCENTRATION/GFAAS**

Alena MANOVÁ – M. TROPP – F. ČACHO – E. BEINROHR

Institute of Analytical Chemistry, Slovak University of Technology, Radlinského 9, 812 37 Bratislava,
Slovakia, e-mail: alena.manova@stuba.sk

ABSTRACT

The aim of this work was to develop an on-line coupling of electrochemical preconcentration to AAS method and the utilization of the developed system for the determination of ultra-trace amounts of Sb in water samples. A flow-through electrochemical analyzer EcaFlow (Istran, Bratislava) was used as the preconcentration unit with a two-electrode cell. The working electrode was an RVC electrode coated with gold. An AAS spectrometer Spectraa 400 with graphite furnace atomizer (Varian) was used to measure the preconcentrated Sb species. The preconcentration parameters for the electrochemical process were optimized. The deposition runs at a constant current of - 8000 μ A and the optimum stripping current was found to be 150 μ A.

Keywords: Antimony, GFAAS, electrochemical, preconcentration