

Abstract

The aim of the diploma thesis was an improvement of the efficiency of electrochemical generation of volatile form of cadmium used in atomic spectrometric methods. The increase of the efficiency of electrochemical generation of volatile form results in overall improvement of the sensitivity of measurement and therefore, it is possible to achieve lower values of detection limits and limits of determination. One of all the possibilities for improving of overall efficiency is a minimization of loss of volatile form of Cd during transport. Another essential possibility is coupling of the technique of electrochemical generation of volatile form of Cd with in-situ collection (and atomization) in graphite furnace of atomic absorption spectrometer.

Keywords:

Atomic absorption spectrometry, electrochemical generation of volatile compounds, generation efficiency, electrolytic flow-through generation cell, quartz-tube atomizer, graphite furnace, in-situ trapping, cadmium