

## Abstract

This thesis describes the development and optimisation of a method for determination of iron in beer using electrothermal atomic absorption spectroscopy as a more sensitive option to routinely used flame atomic absorption spectroscopy. While a fully functional method has been developed for aqueous solutions, matrix effects in real beer samples made this determination impossible. Therefore, a method of sample preparation has been developed, beer purifying through column with adsorbent Florisil. After this adjustment the interfering substance was eliminated and the detection limit of ETAAS was six times lower than the detection limit of FAAS. The content of iron in the real beer sample using ETAAS was measured as 30 % lower than using FAAS, it is therefore necessary to optimise this method. This will be the subject of further experiments.