

## Abstract

This bachelor thesis was focused on the determination of sodium and potassium in honey samples by atomic absorption spectrometry with a flame atomization technique. An acetylene-air flame was used.

Prior to the analysis of the honey samples, the optimal working parameters of the used method were found. The optimized parameters were: the height of the beam above the burner, the flow rate of acetylene, and the burner's horizontal position. Under the optimal conditions, the basic characteristics of the determination of sodium and potassium were studied.

Sodium and potassium concentrations in the honey samples were determined under optimal conditions. A total number of 27 honey samples were analyzed. The sodium content ranged from 0.880 to 25.3 mg/kg. The potassium content was in the range of 223 - 2750 mg/kg. In the end, the measured concentrations of honey samples originating from the Czech Republic were compared with the foreign studies.

## Keywords

Potassium, sodium, honey, atomic absorption spectrometry, flame spectrometry