

## Abstract

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Title of diploma thesis: Development and optimization of a method for the determination of iodine in various matrices

Iodine is an important trace element in our nutrition. Approximately two billions people in the world has insufficient iodine intake in nutrition. Deficiency in iodine causes insufficient production of thyroidal hormones, which is connected with various diseases such as goitre. That is why iodine is added to basic foodstuffs as table salt and other sources are important too, for example mineral water.

It is important to monitor content of iodine to early discovery of disease risk connected with thyroidal gland and its diagnostics.

The goal of this diploma thesis was to develop simple method with using of simple instrumental equipment to determine iodine in different samples. One part of development of our method was optimalization of conditions for iodine analysis in trace quantity and determination of iodine in selected samples.

In-Syringe analysis, one of flow techniques, was used as a technique for accomplishing the task.

This method was optimized for determination of iodine in sample. After optimalization this method was used for analysis of trace quantity of iodine in nose drops and food supplement with iodine.