

## **ABSTRACT**

The aim of this diploma thesis is to create the list of laboratory methods used for the determination of vitamin E in biological materials. Vitamin E is important antioxidant and its deficit is connected with major cardiovascular, neural and immunity disorders. The frequency of its determination is increasing in the last years; the emphasis is put on the speed, universality and possibility of automation.

Theoretical part of this work is dealing with chemical and physical characteristics and biological function of vitamin E. These findings are important to understand the role of vitamin E in the organism and also important for choice of determination method.

The main methods of analysis are chromatographic (UHPLC, HPLC, GC), electrochromatographic (CEC) as well as spectrophotometric methods. The comparison of used methods is also included in the diploma thesis.

**Key words:** tocopherols, vitamin E, biological material.