

# Abstract

Rudolfová D.: **Phytochemical study of *Helianthus annuus* L. leaves III.** Diploma thesis 2007. Charles University in Prague, Faculty of Pharmacy in Hradec Králové, 105 pp.

The thesis was aimed at phytochemical study of *Helianthus annuus* leaves. The purpose was to get a summary extract from sunflower leaves, to divide it into several fractions and analyse them using structure selective detection reagents and evaluating their antioxidant activity.

At first, the ethanolic extract from *Helianthus annuus* L. leaves was prepared. After shaking it with n-butanol the aqueous part was separated on a chromatographic column. Fractions were analysed using the TLC separation method and the structure selective detection reagents were applied to the TLC plates. Selected united fractions were separated on a second chromatographic column. Fractions from this second column were analysed using the TLC method. After that, antioxidant activity of selected fractions from the first and second chromatographic column was screened with DPPH test and FRAP method.

Following the chromatographic analyses mainly saccharides, steroids, terpenes, phenolic compounds, lactones and essential oils were detected. Significant antioxidant activity was detected with fractions HEA 25-28 (first column) and HEA 6-8 (second column).