

## ABSTRACT

Linzerová, Petra.: Biological Effect of Plant Metabolites III. Izolation of Alkaloids from *Eschscholzia californica* Cham. A Diploma Work, Charles University in Prague, Faculty Of Pharmacy in Hradec Králové, Department of Pharmaceutical Botany And Ecology, Hradec Králové 2009, 54 pages

Aims of this diploma thesis were to isolate alkaloids from J1 extract obtained from a herb with roots from a plant *Eschscholzia californica* Cham., to perform the identification of gained alkaloid and to participate in determination of activity of isolated alkaloid against the erythrocytic acetylcholinesterase.

After finding suitable mix of reagents we divided the extract on a chromatografic column filled with silica gel by system of chloroform : ethanol with gradual increasing of concentration ethanol. With obtained eluents we made a orientation thin layer chromatography with developing system acetic acid : ethanol : water (60 : 30 : 10). Alkaloids were detected by UV radiation and spray with Dragendorff reagent. After decantation of fractions with similar spectrum of matters we cleared selected mixture. We obtained two alkaloids; NMR spectroscopy will be used to determine the structures of these alkaloids.

Keywords: *Eschscholzia californica* Cham., benzo[c]phenantridin alkaloids, column chromatography, Alzheimer disease, inhibitors of acetylcholinesterase