

STUDY OF LIPOPHILIC FRACTION OF SPREADING WOODRUFF HERB

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Continuing studies of biologically active compounds (BAC) of spreading woodruff – *Asperula humifusa* (M.B.) Bess. which belongs to madder family (*Rubiaceae*) we obtained different fractions by extracting the raw material sequentially with different solvents in order of their polarities increase. The aim of our work was to study lipophilic compounds of spreading woodruff herb collected in the flowering phase in summer 2011 near the city of Eupatoria the AR of Crimea.

The chloroform fraction was obtained by exhaustively circulating extraction with chloroform of powdered air-dried herb in the Soxhlet apparatus. Yield made up 3.23%.

Preliminary studies were carried out using thin layer chromatography (TLC). By the magnitude of *R_f* and colour of spots in visible light and UV-light before and after treatment of chromatogram with corresponding chromogenic reagents chlorophylls, isoprenoids – irydoids, carotenoids have been found. Composition of the lipophilic fraction was studied by the method of three-dimensional scanning spectrofluorimetry in visible light and UV-light using spectrofluorometer Hitachi F4010, reprogrammed for 3DF-measurement. Scanning parameters: excitation wave length range – 220-800 nm, fluorescence wave length range – 220-800 nm, scan step – 10 nm, gap of excitation / fluorescence – 5/5 nm.

The results of the current study showed that the chloroform fraction of spreading woodruff herb contains chlorophylls – 554.57 mg/g (λ_{exc} 250-310 nm, λ_{exc} 360-440 nm, λ_{emi} 610-690 nm) and carotenoids – 313.58 mg/g (λ_{exc} 340 - 360 nm, λ_{emi} 670-750 nm). The presented results could serve as a foundation for further phytochemical studies of BAC of spreading woodruff herb.