



DETERMINATION OF HEAVY METALS IN EXTRACTS AND MACERATES FROM GARDEN FLOWERS

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Abstract

The aim of this work was to study the content of Fe, Mn, Zn and Pb in the mixtures which contain volatile oil between other components, obtained after the Soxhlet extraction or maceration of the samples (different organs of garden flowers - blue hyacinth and chrysanthemum). The blue hyacinth is a bulbous perennial herb in the Lilliacae family, grown for its showy and fragrant springtime flower display. Garden chrysanthemums are tender perennials in the Asteraceae family in double-flowered forms. Flame atomic absorption spectrometry (FAAS) was used for the quantitative determination of metals in this matrix. Also, the refraction indexes and conductivity were measured using Abbe refractometer and LF 340-A conductometer, for the characterization of the obtained mixtures, respectively for correlation with the mineral content. It was observed that that iron concentrations are higher in blue hyacinth extract and macerates than chrysanthemum.

Key words: blue hyacinth, chrysanthemum, FAAS, heavy metals

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