

Study of Matrine Content in Licorice Raw Material and its Connection to *Sophora flavescens*

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Licorice is a widely used medicinal plant, and its purity is one of the primary indicators of its quality. Recently, the presence of the substance matrine in licorice raw material has emerged as a significant issue in the international market, as it lowers the quality of the product.

The aim of this study was to investigate the matrine content in licorice samples and determine the factors leading to its presence. The scientific hypothesis suggests that the source of contamination is the plant *Sophora flavescens*. Since these two plants often grow in the same areas and their roots are visually quite similar, accidental mixing frequently occurs during the harvesting process [1].

This research describes the chemical-analytical methodology for the extraction and purification of the target component from the samples using Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS). The process is based on the liquid-liquid extraction, where the substance is isolated and separated from accompanying impurities by adjusting the acidity (pH) of the medium. The ultimate goal of the study is to obtain a high-purity extracts.

References:

{1} "Sophora." TROPICOS. Missouri Botanical Garden. Retrieved 2010-01-28.