

Study of the Influence of Solvent and Time on the Extraction of Glycyrrhizic Acid from Licorice Roots

Nikoloz Gonitashvili, Irakli Apriamashvili, Ana Kunchulia, Gozali Safarova, Nini Ukhurgunashvili, Natia Tchanturia, Bezhan Chankvetadze

Email: nikoloz.gonitashvili654@ens.tsu.edu.ge

Department of Chemistry, Faculty of Exact and Natural Sciences, Ivane Javakhishvili Tbilisi State University 3 I. Chavchavadze Ave., Tbilisi, 0179, Georgia

Licorice is one of the most important medicinal plants, and its pharmacological value is primarily determined by the glycyrrhizic acid it contains [1]. This study focuses on identifying the most effective methods for extracting beneficial substances from licorice root. The primary objective of the research was to select optimal conditions that would allow for the most efficient extraction of active components with minimal loss. The work was conducted in compliance with international pharmaceutical standards.

As part of the research, various experiments were performed to compare different types of solvents. Additionally, the study examined how extraction time and the solvent-to-raw material ratio affect the quality of the resulting product.

Preliminary results highlighted the optimal pathways necessary for obtaining a high-quality extract. Furthermore, the study explored methods for the post-processing of the obtained product and the preservation of its physical characteristics, both of which are crucial for the manufacturing process.

Reference

[1] European Pharmacopoeia (EP), 11th Edition, Monograph 2.2.29.