

organs), that permit to resume their functionality. Using of gemmoderivates shows a gentle therapy of a deep action and without negative consequences. Gemmotherapy was initiated a long time ago (XIV-XV century), but classical one founded by Belgian doctor Pol Henry in 1950 during the last decades shows a rising interest.

Purpose: Qualitative and quantitative analysis of flavonoids and tannins in buds of some woody plants.

Materials and Methods: As a biological material for chemical study served buds of horse chestnut tree, walnut, white birch, white poplar and cherry tree. Qualitative study of flavonoids was conducted by applying color or precipitation reactions and quantitative – spectrophotometry method. Qualitative analysis of tannins was performed by chemical specific reaction and thin layer chromatography and quantitative one by titrimetric method.

Results: The analyses of the qualitative study of flavonoids in the vegetable drugs *gemmae* of *Aesculus hippocastanum*, *Juglans regia*, *Betula pendula*, *Populus alba*, *Prunus avium* established the presence of the following flavonoids constituents: flavones, flavonols, flavanonols, anthocyanins, aurons and chalcones. The spectrophotometric study of flavonoids shows that the maximum content belong to white poplar buds – 7.208%, then decreasing in the buds of walnut – 6.808% , cherry tree – 3.508%, horse chestnut – 2.912% , white birch – 2.746%, and in the catkins of white birch – 2.220%. The specific reactions for tannins identification demonstrate the presence of condensed and hydrolyzed tannins in analyzed buds. The titrimetric dosage of tannins denotes the presence of a high content in analyzed buds, the most being in the horse chestnut buds (20.541%), followed by the walnut (15.406%). The cherry buds contain – 9.928%, followed by the white poplar (6.847%) and white birch buds (6.505%). The lowest content of tannins has the catkins of white birch – 2.326%.

Conclusions: The analyzed buds also contain large quantities of tannins and flavonoids with valuable therapeutic qualities besides the specific biocomplex conditioned by the presence of specific meristematic tissue. The buds represents a biological complex entity, in which is realized a synergy of their components in the human body.

Keywords: gemmotherapy, meristems, flavonoids, tannins

16. DEVELOPMENT AND VALIDATION OF THE UV SPECTROPHOTOMETRIC METHOD FOR ANALYSIS OF ETHANOL SOLUTION OF ISOCONAZOL NITRAT

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Introduction: The high prevalence and the constant increase of incidence of skin fungal infections and its annexes causes a continuing interest for the analysis and standardization of antifungal agents.

Purpose and objectives: Validation of UV spectrophotometric method for analysis of nitrate Isoconazole obtained through original from synthetically imidazole ionic liquids.

Materials and methods: Reference study (articles of journals, periodicals, European Pharmacopoeia). The object of the research was the sample of Isoconazole nitrate, synthesized in the Laboratory of Synthetic Organic Chemistry Institute, Academy of Sciences of Moldova. Instruments: UV Visible Spectrophotometer (Agilent 8453); electric balance (OHAUS).

Results: The Isoconazole nitrate solution spectrum shows the well-defined spectral absorption maximum between 274 nm and 282 nm. Ethanol shows absorption maxima at other wave lengths. So it can be used as a solvent. According to the calibration straight lines, a better linearity shows the data taken at λ 274 nm. In the concentration range 50-150 mg / mL, the relative standard deviation is 0.22% maximum, which is equivalent to a very good accuracy of the method.

Conclusion: According to the results of the study, the UV spectrophotometric method was validated. It allows the quantitative determination of the nitrate Isoconazole in ethanol solution. This method is rapid, requiring small amounts of reagents, providing accurate and reproducible data.

Keywords: Imidazole derivatives, isoconazole nitrate, UV spectroscopy