

of an alternating current at a current of 16 A and an exposure of 60 s. Measurement of the intensity of the lines in the spectra of the analyzed samples and calibration samples was carried out using a microfotometer MF-1.

Results and Discussion. The content of macroelements in the celery leaves was (in mg/100 g): calcium – 1570, magnesium – 590, potassium – 4900, sodium – 590, phosphorus – 330, manganese – 9,8, and microelements: silica – 590, aluminum – 100, ferrum – 50, cuprum – 1,0, zinc – 13,7. The content of toxic elements: plumbum, cadmium, mercury, and arsenic is within the limits of maximum permissible concentrations for raw materials and food products.

Conclusion. Due to their rich composition, Celery leaves can be powerfully medicinal, especially when consumed long term and combined with other healthy vegetable foods. Celery can also be considered a perspective source of minerals for creation of drugs and dietary supplements.

PHYTOCHEMICAL ANALYSIS AND DETERMINATION OF THE MAIN INDICATORS IN THE WISTERIA SINENSIS

Chervyak S. S. Pohrebniak V. V.

Scientific supervisor: prof. Kovaliov V. N.

National University of Pharmacy, Kharkiv, Ukraine

veta4039@gmail.com

Introduction. Using biologically active substances of plant origin is very relevant for medicine, cosmetology and pharmacy, despite the significant progress in creation of synthetic drugs. Above all this is due to unique properties of phytodrugs and rapid development of technologies of biology, medicine and manufacture of drug study.

That's why the search for new components of plant origin, which can be used in medicine, still current task for all pharmaceutical industry. The plant that deserves the attention of scientists is wisteria sinensis.

Wisteria sinensis – is a decorative plant originated from China, kind of dicotyledonous flower plants of genus *Glicinia* (*Wisteria*) of the Bean family (*Fabaceae*). In nature, it can be found in China, as well as in Japan. It grows high above the sea level, most frequently in the mountain forest. In the 19th century it was brought to Europe, and nowadays beautiful Chinese glycins grows even in Ukraine. In general, the genus of *Glicinia* includes such common types as: *Wisteria brachybotrys*, *Wisteria brevidentata*, *Wisteria floribunda* – Japanese wisteria, *Wisteria frutescens* – American wisteria, *Wisteria macrostachya* – Kentucky wisteria, *Wisteria sinensis* – Chinese wisteria, *Wisteria venusta*– Silky wisteria, *Wisteria villosa*.

Aim. Performing the phytochemical research of the leave of the *Wisteria sinensis* and the determination of the main indicators in the leaves of the *Wisteria sinensis*.

Materials and methods. Object of study is leaves of *Wisteria sinensis*. The leaves were analyzed to determine the main qualitative and quantitative indicators, such as: ash, extractives, moisture, ascorbic acid, hydroxycinnamic acids, flavonoids, free organic acids, tannins. The determination were made using titrimetric, spectrophotometric methods, and also by the method of paper chromatography.

Results and discussion. As the results of the phytochemical analysis of the leaves of wisteria sinensis, it was determined that the raw material contains phenolic compounds, flavonoids, alkaloids, amino acids, tannins, organic acids. Prevailing biologically active groups are flavonoids, phenolic compounds, organic acids, hydroxycinnamic acids, tannins, ascorbic acid, which became the subject of further research.

The highest amount of extractives was obtained by extraction of raw materials by 50% and 70% by alcohol by ethylene, which was 19.9% and 25% respectively.

As a result of quantitative analysis of extractives, the following data were received: phenolic compounds – 4.19%, flavonoids per routine – 2.3%, tannins per pyrgalal – 3.0%, ascorbic acid – 0.1%, organic acids in terms of apple tree acid – 3.17%, hydroxycinnamic acid in terms of chlorogenic acid – 0.64%.

Conclusions. A new promising source of raw materials – the leaves of *Wisteria sinensis* – is provided for the production of various groups of biologically active substances. In the future, a more detailed study of the chemical composition of the flowers and fruits of the *Wisteria sinensis* and the study of their biological activity remains promising.

COMPARATIVE ANALYSIS OF EXTRACTIVES TUBERS GRADES DAHLIAS DEPENDING ON THE SOLVENT

Deineka A. S.

Scientific supervisor: PH.D. associate prof., Ilyinska N. I.

National University of Pharmacy, Kharkiv, Ukraine

Dviola9918@gmail.com

Introduction. Most phytochemical substances prepared using water or water-alcohol mixtures of varying concentrations. This is due to the fact that these solvents are cost-effective, widely available and safe for human health. When you select a group account for extracting the substances that they want to extract from plant material. The main active compounds are polysaccharides korneklubney dahlia.

Currently, the plant of the genus *Dahlia* (*Dahlia* Cav.) Is cultivated in almost all the world, and a variety of grades of up to more than 15 thousand.

Aim. Experimentally select the optimal extractant for extracting extractives from dahlia tuber varieties.

Materials and methods. Used for analysis tubers 3 grades: Smuglyanka, Colorado Classic, Lunokhod were collected in the National Botanical Garden M. Grishka, Kiev (Ukraine). Mass tubers was 450 g, 400 g and 380 g, respectively, with the bush. In addition, the grade data undemanding to grow, do not require special storage conditions, resistant to disease and pests. Raw dried to air-dry state by conventional means. Dried underground organs were ground and sieved through a sieve, particle size was 1-3 mm. Comparative extractives exit analysis was performed according to the procedure described in Ukraine State Pharmacopeia 2.0 monograph using purified water as extractants, as well as aqueous-alcoholic solutions of different concentrations (40% ethyl alcohol and 70% ethyl alcohol).

Result and discussion. Max extractives from tubers represented grades of purified water were recovered. The highest values were observed in varieties Colorado Classic ($36,09 \pm 0,31\%$) for that solvent. Extractives content in the tuber varieties Smuglyanka and Lunokhod was less – $30,10 \pm 0,27\%$ and $30,54 \pm 0,40\%$, respectively. Yield extractives, which did not differ extracted with 40% ethanol in tuber varieties Classic and Smuglyanka and reached $32,97 \pm 0,32\%$ and $32,04 \pm 0,27\%$, respectively, Tubers variety Lunokhod 1.16 times inferior content extractives, extracted with 40% ethanol ($26,28 \pm 0,32\%$), the above-mentioned varieties. Results obtained by extraction with 70% ethanol in Lunokhod and Smuglyanka grades differ slightly and amounted $29,53 \pm 0,31\%$ and $29,35 \pm 0,31\%$, respectively.

Conclusions. Thus, for optimum extractant korneklubney dahlia grades is presented purified water. The results will be used later in developing substance.

DETERMINATION OF PYRROLIZIDINE ALKALOIDS IN MEDICAL HERBAL MIX AND HERBAL REMEDIES

Golopyorova A. I., Osmachko A. P.

Scientific supervisor: prof. Kovalyova A. M.

National University of Pharmacy, Kharkiv, Ukraine

allapharm@yahoo.com

Introduction. Pyrrolizidine alkaloids were found in 14 families, mainly at Asteraceae (*Senecio*, *Tussilago*), Boraginaceae (*Borago*, *Echium*, *Heliotropium*, *Symphytum*, *Pseudomertensia*, *Onosma*), Fabaceae (*Crotalaria*). Remedies of platyphylline and sarracin show cholinolytic and spasmolytic effect, they are used to relieve spasm of smooth muscles of the abdominal cavity, bronchial asthma, arterial