Lublin Association of Pharmacy Students
www.ltsf.pl
Young Pharmacy Lublin
LUBLIN 2016
ORGANISING COMMITTEE

Ewa Świątek

Maria Majczak

Małgorzata Szczepaniak

Tomasz Nawrocki

Marta Wieteska

Wojciech Sobczyk

Dominika Cieślak

Maria Pepera

Żaneta Polak

Piotr Rosiński

Marta Pietroń

Łukasz Skibiński

Patrycja Kuźma

Michał Karakuła
DEVELOPMENT OF CAMEL’S THORN THICK EXTRACT OBTAINING TECHNOLOGY AND ITS STUDY
Kumarova A.
Scientific supervisor: Kukhtenko H.
National University Of Pharmacy, Department Of Industrial Pharmacy

Introduction: Search and creation of medicinal substances with high pharmacological activity is a primary task of pharmaceutical branch. In this regard of great interest are vegetable raw materials, which are a valuable source of biologically active substances, possessing comprehensive therapeutic action on the body. Alhagi herb is known for its healing properties since ancient times and is used in Kazakhstan folk medicine in various diseases, therefore a prospective direction should be obtaining and study of alhagi thick extract with high active components content with the purpose of medicines creation.

Methods: The object of our studies was the alhagi herb. Performing the work we used a complex of phyto-chemical, technological and microbiological analysis methods by which means was grounded the choice of extractant, studied extraction process dynamics, developed the technology of thick extract obtaining and carried out its chemical and microbiological analysis.

Results: It was found, that of used extractants (purified water, ethanol) the maximum extractive ability has 70% water-ethanol solution (19,37±0,2)%. The thick extract was obtained by filtration extraction method in laboratory conditions. As a result of extraction process dynamics study were justified extraction parameters: ratio raw:extractant 1:6, providing the yield of extractives (14,0±0,3)%, extraction rate – 3-4ml/sec. Thick extract was obtained by condensation of liquid extract on a rotor vacuum evaporator to moisture content 25%. Studying chemical composition it has been found that the thick extract contains (2,4±0,2)% flavonoid structure substances in terms of rutin. Microbiological studies have determined relatively high antimicrobial properties of the thick extract.

Conclusions: As a result of conducted research was developed the technology for thick extract obtaining, carried out the analysis of its chemical composition and described microbiological properties. The studies allow using the thick extract for creating ready medicines of antimicrobial action.

Keywords: Alhagi, extractant, extraction, thick extract, flavonoids, antimicrobial activity.
# TABLE OF CONTENTS

4 ...... DEVELOPMENT OF THE EXTRACTION-PHOTOMETRIC METHOD FOR QUANTITATIVE DETERMINATION OF BETA-BLOCKERS  
5 ...... DEVELOPMENT OF THE METHOD FOR PURITY DETERMINATION OF THE STANDARD SAMPLE OF NIPAZOL BY DIFFERENTIAL SCANNING CALORIMETRY  
6 ...... THE MACROSCOPIC STUDY OF SOPHORA JAPONICA FLOWERS  
7 ...... PHARMACOGNOSTIC RESEARCH OF UKRAINIAN SAFFLOWER FLOWERS  
8 ...... DEVELOPMENT A COMPOSITION OF COLLAGEN-ALGINATE GEL FOR USE IN THE SECOND STAGE OF WOUND HEALING PROCESS.  
9 ...... DOXYCYCLINE HYDROCLORIDE AND CA2+, MG2+ AND AL3+ SALTS INTERACTION RESEARCH  
10 ...... MICROSCOPIC STUDY LEAF OF YELLOW AZALEA (RHODODENDRON LUTEUM SWEET.)  
11 ...... THE CHOICE OF EXCIPIENTS IN THE COMPOSITION OF A MEDICATED CHEWING GUM.  
12 ...... COPPER COMPLEXES OF 2-HYDROXY-1,4-NAPHTHOQUINONE FROM LAWSONIA INERMIS L. (HENNA) AS POTENTIAL ANTI-CANCER AGENTS  
13 ...... PHARMACEUTICAL DEVELOPMENT OF OINTMENT FOR THE FIRST PHASE OF WOUND HEALING WITH CHAMOMILE EXTRACT CONTENT  
14 ...... PHARMACO-TECHNOLOGICAL PROPERTIES OF TABLET MASS AND DETERMINATION OF TABLETS WITH CONTENT OF COMPLEX DENSE EXTRACT QUALITY  
15 ...... DEVELOPMENT OF CAMEL’S THORN THICK EXTRACT OBTAINING TECHNOLOGY AND ITS STUDY  
16 ...... CLOPIDOGREL CONCENTRATION IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION AND IMPAIRED CARDIAC FUNCTION  
17 ...... THE INFLUENCE OF GENETICS ON THE REVERSAL OF ANTICOAGULATION IN PATIENTS STOPPING WARFARIN PRIOR TO SURGERY.  
18 ...... APPLICATION OF FTIR-ATR SPECTROSCOPY, HPLC AND CHEMOMETRIC METHODS TO QUANTITATIVE ANALYSIS OF METHYLXANTHINES, POLYPHENOLS AND ANTIOXIDANT ACTIVITY OF YERBA MATE