

They are actively used in cosmetology and health systems. Chamomile flowers for facial skin are a source of vitamins; they smooth wrinkles, tone up, relieve inflammation and irritation, heal wounds.

**Purpose of the research.** To develop a technology for a liquid chamomile extract.

**Materials and methods.** We have proposed a method for obtaining a liquid extract from chamomile flowers. It is known from the literature that the most common and accessible way of extracting biologically active substances from different parts of plants is the extraction of raw materials with various solvents. Due to the fact that the composition of extractive substances includes various classes of compounds, we used the method of fractionation with various solvents, which makes it possible to determine both the total amount of extractive substances contained in plant raw materials (exhaustive extraction) and the amount of resinous substances, phenolic and carbohydrate components separately (fractional extraction). For the study, alcohol-water mixtures of 20%, 40%, 70% concentration were taken; the extracts were prepared in laboratory conditions by the method of percolation and USRIP (Union-wide Scientific Research Institute of Pharmacy). The strength of ethyl alcohol in the liquid extract obtained by the percolation method was 38.4% when determined by the distillation method. The experimental results obtained were in accordance with the requirements of the State Pharmacopoeia XI.

At the next stage of our work, the amount of biologically active substances in the liquid extract was determined by HPLC. For this, a Shimadzu "LC-20 prominence" liquid chromatograph with a diode array detector was used.

**Obtained results.** A comparative study of the quantitative values obtained by several methods showed that the quantitative indicators of the liquid extract obtained by the percolation method gave more reliable results than the USRIP method.

**Conclusions.** The resulting liquid extract is a clear yellowish liquid with a characteristic odor and taste. Of the quantitative indicators obtained by different methods, the dry residue was 4.40%, the salts of heavy metals - 0.001%. The predominance of 40% ethyl alcohol as an extractant was confirmed and the percolation method was chosen as the most suitable.

## STEPS OF A CREATION OF A COSMETIC PRODUCT

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**Introduction.** Cosmetic products play important role all over the world. All people use cosmetic products. People cannot get along without cosmetic products. Cosmetic products affected, affect and will affect people very much.

**Purpose of research.** To show steps of a creation of a cosmetic product.

**Materials and methods.** Comparative.

**Obtained results.** The cosmetic products are the items designed to cleanse, protect and change the appearance of the external parts of the bodies of the people. The cosmetic products are composed of a mixture of the chemical compounds derived from either the natural sources or synthetically created sources containing the multiple ingredients of the different chemical properties. The cosmetic chemists constantly create the new types of the skin care, the facial care, the personal care and the hair care cosmetic products.

The cosmetic products designed for the skin care can be used to cleanse and protect the skin as well as replenish it. The skin care cosmetic products can include the cleansers, the serums, the moisturizers and balms.

The cosmetic products designed for the facial care can be used to improve noticeably the facial texture and the facial appearance ; to maintain the look of the skin and to feed the skin with the essential nutrients. The facial care cosmetic products can include the cleansers, serums, the facial oils, the sunscreens, the moisturizers.

The cosmetic products designed for the personal care can be used to make the external parts of the body such as the skin, the nails, the hair, the lips and internal parts of the body such as the teeth and the mucous membranes of the oral cavity clean, to protect from the germs, to prevent a bad odor from happening. The personal care cosmetic products can include the skin moisturizers, the perfumes, the lipsticks, the fingernail polishes, the eye and facial makeup preparations, the shampoos, the toothpastes and the deodorants.

The cosmetic products designed for the hair care can be used to help to control the properties and the behavior of the hair. The hair has to be maintained in a controlled and in a desirable manners. The hair care cosmetic products can include the hair conditioners, the hair sprays, the hair straighteners and the hair relaxers, the hair dyes, the shampoos, the tonics.

The key ingredients present in the most cosmetic products are water, the emulsifiers, the thickeners, the moisturizers, the color additives and the fragrances:

1. Water is the most important ingredient in the skin care and the hair care cosmetic products. Distilled or purified water is used in cosmetic preparations;
2. Emulsifiers are substances for combining non-miscible fluids into an emulsion;
3. Thickeners are substances which increase the viscosity of liquid without substantially changing its other properties;
4. Moisturizers are a glycerin, an hyaluronic acid, a petrolatum ;
5. Color additives are the dyes, the pigments or the other substances;
6. Fragrances are the complex combinations of the natural or the artificial substances.

A creation of a cosmetic product depends on all used ingredients.

When creating a new cosmetic product, the cosmetic chemists undertake six essential steps like: Cosmetic product and packaging requirements, Product formulation, Raw materials and packaging sourcing, Artwork design, Quality and compliance, Product final validation.

- Cosmetic product and packaging requirements is a starting point of an every project. It includes the product category, a color, an odor, the texture, the size. The Research and Development team will design the cosmetic product. The Packaging team will select the cosmetic product package applying to the suppliers.

- Product formulation is based on the each claim, which is analyzed. The concentration, the allergens, the chemical reactions and the costs are evaluated to meet all requirements.

- Raw materials and packaging sourcing. If a prototype of the cosmetic product is designed, the cosmetic chemists will look for the certain raw materials to create the cosmetic product and the supplier will send the selected package to the Packaging team.

- Artwork design. The Packaging team will have to create an artwork design of the cosmetic product package. The package is the first thing the consumers will see and will read about a cosmetic product. The words and the word – combinations, the colors, the graphic are chosen thoroughly.

- Quality and compliance. Before manufacturing the cosmetic product, the cosmetic product has to be safe for usage and has to be complied with the regulations. The several quality tests must be carried out like : microbiology, toxicology, stability to prove a product safety. In addition, all the