DETERMINATION OF MICROELEMENT STORAGE OF LAVENDER HYDROLATE BY MASS SPECTROMETRY WITH INDUCTIVELY COUPLED PLASMA

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Lavender hydrolate has a significant range of unique beneficial properties: it has not only a tonic effect on the skin, but also an intensive moisturizing, emollient and antibacterial [1, 2].

Lavender hydrolate finds its place in the cosmetics and perfumery industry, and is also very valuable for the food industry. Therefore, the study of micronutrient composition is extremely important of this supplement [1, 2].

A sample of lavender hydrolate from the Ukrainian manufacturer «Naturalissimo» was selected to determine the microelement composition of ICP/MS.

Object of study: fragrant water hydrolate, 2 ml of the original hydrolate dissolved in 200 ml of double-distilled water. The microelement composition was determined by the ICP/MS method according to the developed method.

The microelement composition of lavender hydrolate is given in the table, the arithmetic mean of experimental data is calculated, the standard deviation, which indicates the reproducibility of the method.

Based on the obtained data, a diagram was constructed.

Figure 1 clearly shows the levels of trace elements in lavender hydrolate.

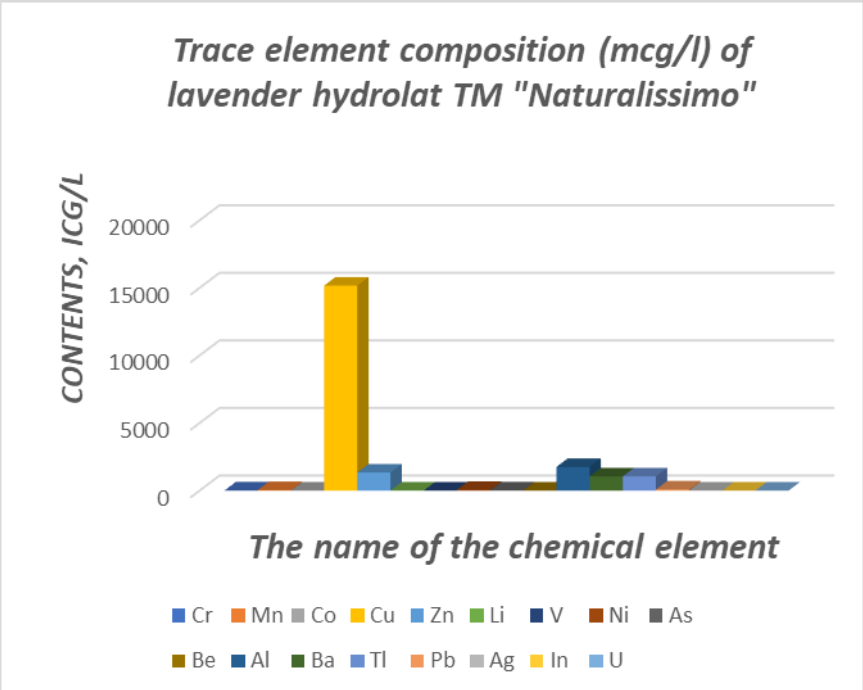

Fig. 1 Trace element composition (μg/l) of lavender hydrolate

The lavender hydrolate has a microelement composition for 24 elements. It has been established that most of the sample includes essential elements: Cu, Zn, Mn.

A high index of the chemical element Cu demonstrates the blocking of free radicals and substances that destroy collagen. Playing a role of restorative, disinfectant and wound healing agent. Its participation in metabolic processes je expressed by synthesis of number of active enzymes that affect the formation of elastin [2].

The amount of toxic elements does not pose a threat to the target product.

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