ARTICLES MADE OF SHEEP FUR WITH THERAPEUTIC PROPERTIES

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There are a number of people with rheumatic, joint and muscular diseases and medical treatment of patients suffering from these diseases requires improvement through alternate methods.

Many species of plants containing essential oils bring their contribution all over the world in preventing various diseases.

Essential oils are very concentrated in active chemical elements and have various properties: they are analgesic, anti-inflammatory and relaxing, antiseptic, antibacterial, immunostimulant, etc.

Sheep fur were tanned (non-metallic tanning) with syntans based on phenolsulphonic acids and aromatic oxisulfones, and in the final finishing phase were treated with product based on essential oils with therapeutic properties (eucalyptus, mint, lavender).

The composition of essential oils was analyzed by gas chromatography coupled with mass spectrometry - GC-MS.

The eucalyptus essential oil have the following compounds: eucaliptol – 57%, alpha-terpineol – 19%, alpha-linalool –3%, alpha-pinene – 2.5% and caryophillene –2.5 %.

The mint essential oil have the following compounds: menthol – 40%, L-menthone – 24%, I-menthone – 15 %, D-limonene – 8.5 % and menthyl acetate – 4 %.

The following compounds in the lavender essential oil are found in the highest amount: linalol, 36%, linalyl acetate, 35% and alpha **-** terpineol, 7%.

FT-IR spectra of films obtained by evaporation of dispersion medium from product based oils, contain bands of all components, with intensities determined by their proportions.

Synthesis of product based on plant extracts was conducted in a glass flask using a heating and homogenization installation (Velp) and an ultrasonic bath (Elmasonic S 15 H).

The physico-chemical characterization of new product based on essential oils (eucalyptus, mint, lavender), ethyl alcohol, non-ionogenic surfactants from the category of polyethoxylated fatty alcohols and polyethylene glycols and water: is yellowish white fluid, homogenous, with 18-20% dry substance, pH – 4.5-5.0, density -0.880-0.890 g/cm^3.

The prepared P-EML product with therapeutic properties (analgesic, anti-inflammatory and relaxing) can be used (in proportion of 25-30%) for treatment of medical furs.

The product based essential oils can be used to treat the surface of finished sheep furskins (free of metals) for medical purposes and improve the quality of natural fur and fur articles (lumbar belts, knee pads, elbow pads etc.) used to prevent, relieve and treat rheumatic, muscular, circulatory disorders, complementing the medical treatment of patients suffering from these conditions, keeping the fur-covered area warm.

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