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## Perspective Sources of Biological Active Fatty Acids and Their Application in Cosmetics Technology

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### ABSTRACT

We are conducted the analysis of traditional and exotic vegetable oils with the aim of establishing the potential possibility of their application in cosmetics technology, in particular emulsive nature. Fatty acids contain mustard, coconut, corn, flax, olive, soya-bean, sunflower, palm, rape, apricot stones, amaranth, vine seeds, pumpkin, walnut, coffee, cedar, hemp, sesame, almond, oleum, wheat, ryzhiy are investigated. The fatty acid detection was carried out using gas chromatography manufactured by Hewlett - Packard HP6890 with a flamingly-ionization detector.

It was found that palmitic C16: 0 and stearin C18: 0 acids are contained in all investigated oils. Vegetable oils are in the liquid state at a room temperature(all investigated oils after the exception of coconut and palm) contain greater palmitic acid than stearin.

Arachic C20:0 and behenic C22:0 fat acids are widely widespread in the nature and contained mainly in vegetable oils, but in small amounts - from 0,16 and 0,14% in flax to 3,05 and 0,80% in coffee accordingly. Fat acids with the odd amount of carbon atoms are not specific for vegetable oils, however margaric acid of C17:0 is 0,04% in hemp oil, The 0,05% in oleum oil, 0,08% in amaranth oil, 0,09% in coffee oil and 0,11% in palm oil. 0,07% of genekozane acid C21:0 and 0,09% of tricozane acid C23:0 are contained in coffee oil. The fizete acid C17:1 is exceptionally in oleum oil in the amount of 1,27%.

Monounsaturated fatty acids are most widely widespread with one double connection. In liquid fats they are contained in considerably greater amounts, than the saturated acids and fold 80-90% general fatty acid containing. Vegetable oils mostly contain nonsaturated olein C18:1 9c and elaidic C18:1 9t fatty acids with 18 atoms of carbon and in considerably less linolic acid. Oil from apricot stones and almond contain about 70% of olein acid, in mustard and rape - 58-59%. Linolic C18:2 acid are absent in drupaceous oils - apricot, vine and almond ones.

The most linolenic acid of C18:3 $\omega$ -3 among vegetable oils contains flax oil (55,53%),  $\gamma$  - linolenic acid is educed in cedar oil (18,81%) and in hemp oil (2,57%).

### KEY WORDS

Fatty acids, exotic vegetable oils, gas chromatography, fatty acids contain.

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