

traditions and innovations, digital possibilities, and environmental responsibility are the main challenges for today's designers. The future of fashion depends on designers' ability to adapt to new conditions and create harmonious, eco-friendly, and innovative solutions.

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## USES OF LACTIC ACID IN THE COSMETIC INDUSTRY

Lactic acid ( $C_3H_6O_3$ ) is one of the most common alpha-hydroxy acids (AHA) used in cosmetology. Due to its properties, it is widely used in skincare products, including exfoliants, moisturizers, serums and professional cosmetic procedures (Corazza, 2021).

The main action of lactic acid in cosmetology is associated with its ability to gently exfoliate dead skin cells of the epidermis, stimulate skin renewal, maintain its moisture and regulate pH levels. It also promotes the synthesis of collagen and elastin, which helps improve skin elasticity and texture, reduce fine wrinkles and pigmentation (Nilforoushzadeh, 2018).

Due to its effectiveness and mild action, lactic acid is used in products for various skin types, including sensitive and problematic. In addition, it is used in chemical peeling procedures, which helps fight acne, hyperpigmentation and signs of photoaging (Huang, 2020).

Skin health is an important aspect of a person's overall well-being, as it performs a protective function, preventing the penetration of microorganisms and harmful

substances. The condition of the skin is affected by a number of adverse factors, which leads to an increase in demand for biologically active products that can maintain its health and youth. One of the main goals of using cosmetics is to provide the skin with the necessary minerals, vitamins, collagen and other active compounds that promote its regeneration (Jeong, 2015).

Modern skin care products, including moisturizing and lifting preparations, are divided into two main groups. The first group includes cosmetic gels and creams containing natural ingredients (oils, extracts, polysaccharides, proteins) and synthetic compounds. They mainly act on the surface layers of the skin, without eliminating the deep causes of aging, therefore they require regular use. The second group is represented by non-surgical methods of rejuvenation, such as laser, light and radiofrequency procedures, which affect the deeper layers of the skin and promote its restoration at the cellular level (Lew, 2013).

The complex of chitosan with linoleic acid and retinyl palmitate facilitates the penetration of cosmetic substances into the skin. These compositions containing chitosan are considered potential anti-aging skin care products. Anti-aging cosmetic products were developed using chitin nanofibril-hyaluronan nanoparticles as carriers for active ingredients. A chitosan-containing hydrogel was obtained based on low-molecular and high-molecular samples of chitosan and a mixture of acids (glycolic, lactic, aminocaproic) (Corazza, 2021).

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