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Abstracts

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Basics on Emulsion Technologies Were Reviewed from the Following Viewpoints

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Basics on emulsion technologies were reviewed from the following viewpoints. (1) Definition of the types and states of emulsions, and the differences among emulsions, nano emulsions and micro emulsions. (2) Classification of emulsion formation and the summary of conventional emulsification methods. (3) Instability factors and the theories of emulsion stability. (4) Phase diagram and emulsions (5) How to understand the states of emulsions and micro emulsions and effective emulsification and solubilization. (6) Summary of recent emulsion technologies for preparation of fine emulsions.

Glary Appearance of Men's Faces and an Evaluation Method

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It is generally thought that the "glary" appearance impression developed on men's faces is closely related to the amount of skin surface lipids. Although the amount of sebum excretion decreases gradually with aging, the glary appearance is noticeable in middle-aged men. In order to elucidate the factors other than skin surface lipids affecting the glary appearance of the forehead, a correlation study between the visual evaluation score of glary appearance and morphological measurements of skin surface was conducted. As a result of multiple regression analysis, the standardized partial regression coefficients were 0.490 for the amount of skin surface lipids, - 0.370 for skin micro texture and - 0.314 for value of skin color. The data indicated that the amount of skin surface lipids was most important, but skin micro texture and value of skin color were also irreplaceable factors to comprehend the glary appearance. A multiple regression equation of glary appearance degree was determined with optical parameters of surface reflection and body reflection by image analysis at the forehead. The results suggested that the surface reflection parameter was influenced by the skin micro texture and actual amount of skin surface lipids. Since Japanese men still hesitate to use skin care products daily for UV protection, the continual exposure of their skin to UV rays gives rise to the flattened micro texture and darkened tone of the skin. These topographical and / or optical changes of skin surface enhance the generation of glary appearance on men's faces. It was concluded that the improvement of the skin micro texture and the tone with skin care products after the removal of excess surface lipids with face wash products was effective for the reduction of the glary appearance. Key words : glary appearance,

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men's faces, sebum, skin surface lipids, forehead, skin micro texture, skin color, surface reflection, body reflection, image analysis, skin care

Skincare Instruction for Remission Period of Acne and Utility of Proactive Management for Skincare

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In recent years, slightly acid formulas for cosmetics which remove follicular infundibulum obstruction of the hair follicle, have been devised. Therefore, few acne patients experience a problem with cosmetics use. On the other hand, cosmetics use differs from person to person. Thus, an investigation of actual conditions of cosmetics use was done among acne patients. Compared with healthy people, acne patients used more facial wash products more. It has been understood that treatment and skincare instruction are important for the improvement and prevention of acne. We examined skin physiology function and patient's QOL by using a skin care product for women for two months with skincare instruction from a dermatologist for 31 female patients this time. As a result, it was able to be confirmed that the physiology function of the skin and the patient's QOL were improved, and the skin care instruction by a leading dermatologist was useful as treatment assistance of the acne patient.

Relationship between Hair Surface Properties and Tactile Sensation

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The degree of hair damage can be detected by touching the hair with one's fingers. Therefore, to quantify the degree of hair damage and clarify the relationship between tactile sensation and hair surface properties is important. There have been many studies regarding the changes in hair surface properties due to damage and the recovery effect noted with hair care products. However, few studies have examined the relationship between hair surface properties and the recognition of damage. In part this is due to the fact that there has been no objective device to measure the state and degree of damage to hair, which exhibits significant individual variation. In this study, we developed unique artificial hair surface model plates that specifically represent non-damaged and damaged states of hair and reduce the individual variation in results that occurs frequently when real hair is used. The tactile sensations of four different types of hair surface model plates were evaluated by touching and rubbing them. The results showed that a wider cuticle and an irregular order of cuticle structure were essential to feel hair damage. The tactile sensation of damaged hair is influenced more by the shape of the cuticle under dry conditions although fingers can recognize a hydrophilic surface and can feel hair damage when the surface is touched and rubbed even under dry conditions. Furthermore, the tactile sensation of hair damage and the improvement effect of the tactile sensation can be qualified as a coefficient of dynamic friction using the hair surface model plates and a tactile friction meter. Therefore, the hair surface model plates are potential tools to evaluate hair damage more objectively and should prove useful in testing various toiletry products.

Suppression of the Melanogenesis and Cellular Antioxidant Activity in B16 Melanoma Cells

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The results of antioxidant activities by ORAC assay and CAA assay were evaluated for melanogenesis. Although the antioxidant activity by ORAC was not correlated with the melanogenesis, the samples which showed high antioxidant activity by CAA tended to suppress melanogenesis. Caffeic acid and Citrus depressa juice, which demonstrated inhibitory effects on mela-nogenesis, had high antioxidant activities but no inhibitory effects on tyrosinase activity. In addition, they inhibited the melanogenesis which was increased by inhibition of catalase activity. These results may suggest that antioxidant activity by CAA can contribute to the suppression of melanogenesis in B16 melanoma.