

Abstracts

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Research on Factors to Provide the Feeling of Luxury in
Cosmetics

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The feeling of luxury in cosmetics is the most important quality for all price classes. In the present study, we paid attention to the relation between the skin feel and the feeling of luxury in comparison with the high prestige brand and the low-priced brand. The purpose of this study was to clarify what kind of qualities made the customer aware of the feeling of luxury. In addition, the skin feel in a time series was analyzed, and the features of the feeling of luxury were clarified. The relation between the skin feel and the feeling of luxury was specified from the change in the evaluation structure by using Structural Equation Modeling (SEM). The way to improve the feeling of luxury in two brands is discussed.

Application of O/W/O Type Emulsion to Cosmetics

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This report explains a method of preparing an O/W/O type emulsion using a high-pressure homogenizer and the emulsion's stability and characteristics. A new (O₁ + O₂)/W/O₃ type emulsion was also prepared by combining the O/W/O type emulsion and an (O₁ + O₂)/W type emulsion which was a compound emulsion of different oils and particle sizes. The new emulsion was able to control the release of oil-soluble ingredients.

Skin Softening Mechanism of Liquid Oil

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The tactile sense of skin is one of the most important factors for cosmetics, so there have been many reports about skin softening. For example, the stratum corneum (SC) is well known to be sensitive to moisture, and the details of its mechanism are currently under investigation. Meanwhile, the word "emollient" has often been used in the cosmetics industry; however there are

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very few reports on the mechanism of how oils actually work. So, this time we focused on liquid oil, and studied how it softens the skin by using a mechanical and sensual approach. The results showed that the intercellular lipid layer is softened by the application of liquid oils, and that it can also affect the SC. It was not necessarily the case that the sensory evaluation matched the physical softness, but the surface properties (like skin friction) had a great deal of effect on it. Therefore, we realized that the best way for consumers to experience the softening effect is by using both mechanical and sensual approaches.

Peptide-Silicone Based Microcapsule Suitable for Sun-care Products

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It is well known that peptides, naturally-derived raw materials, can have various kinds of functions due to their high affinity for the skin and hair. Chemical modification allows for a wide control of a peptide's properties. By using these beneficial characters, we prepared microcapsules the walls of which contained peptide, silicone, and alkyl moieties in the structure. The microcapsules can encapsulate various materials with high encapsulation rate. When the microcapsule incorporates UV absorbers, encapsulating UV absorbers can disperse water and be applied to cosmetic formulas easily without using surfactants. Nor do UV absorbers encased in the microcapsule mix with another insoluble material in the cosmetic formula. In addition, the microcapsules can suppress the permeation of UV absorbers on the surface of the skin. So encapsulating UV absorbers provides an opportunity to design a safe and stable sun-care formula. The microcapsules can also allow cosmetic chemists to control the UV absorption range of sun-care products by manipulating the absorption balance between UVB and UVA with various kinds of UV absorbers in the microcapsules. This formula design strategy can yield special sun-care products which can pass a new standard concerning UVA protection.

A Study on the Quantification of Texture Properties in Lipsticks

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Texture property is one of the most important factors in the individual customer requirements for cosmetic products. A new instrument was developed to quantify the texture properties for lipsticks. Skin friction was measured when lipsticks were spread on artificial skin with a certain load. Correlation was obtained between friction and the result of a sensory evaluation item accounting for spread. The continuous film feeling was recognized by measuring friction with various intervals until spreading again. Strong film feeling was obtained in some samples as the viscosity increased. It was supposed to be caused by stability of the wax during rearrangement of the film. From this result, a model of the film feeling was designed. The fitting parameters were found to have correlation to the result of sensory evaluation items accounting for spread and fitness.

Characteristic Features of Female Pattern Hair Loss and the Improvement by Adenosine

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Most common hair loss in women is classified as "female pattern hair loss (FPHL)", and it is distinguished from androgenetic alopecia (AGA) in men. The fronto-temporal recession is typical and prominent in AGA,

whereas FPHL is characterized by a diffuse reduction in hair density in the wider area of central scalp and the frontal hairline is usually preserved. Adenosine has been shown to be effective in thickening hair shafts and improve the condition in AGA in men. Here we studied the efficacy of adenosine treatment to improve hair loss in women. After 12 months' application of lotion containing adenosine, significant increase in the thick hair ratio was

observed as compared with a placebo control. Furthermore, adenosine lotion supplemented with Panax ginseng increased in hair density and thick hair ratio in 6 months' use as compared with before use. No adverse effects were encountered during the trials. These data suggest adenosine is valuable as a safe and effective hair-growth promoting ingredient to improve the quality of life (QOL) for women as well as for men.

