

〈一般論文〉

## 目尻シワの三次元個別解析による新規分類法の開発

原 祐輔\*, 舛田 勇二, 大栗 基樹, 平尾 哲二

### Development of New Evaluation Method Based on Characterization of Each Crow's Feet Wrinkle by Three-Dimensional Analysis

Yusuke HARA\*, Yuji MASUDA, Motoki OGURI, Tetsuji HIRAO

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#### Abstract

To develop anti-wrinkle products that are effective in preventing and improving crow's feet wrinkles around eye corners, it would be desirable that each wrinkle is evaluated by appropriate and precise instrumental analysis that corresponds to visual evaluation. In the guideline of visual evaluation of wrinkles proposed by Japanese cosmetic science society, one's total wrinkle is assigned to eight grades based on the standard wrinkle grades, in which differentiation between each standard grade is based on the level of three types of each wrinkle, namely, "shallow wrinkle," "deeper wrinkle" and "much deeper wrinkle." However, there is no instrumental method by three-dimensional analysis which could evaluate the level of three types of each wrinkle by its area and depth corresponded to visual evaluation. Here, we tried to develop a three-dimensional method to evaluate one's each wrinkle and categorize each wrinkle into three wrinkle types. In addition, we investigated age-related changes in three wrinkle types, and found that shallow wrinkles are decreased and much deeper wrinkles are increased with age, though there is no significant difference of the total wrinkle area between 30's and 60's. In conclusion, this new evaluation method of the level of three types of each wrinkle could provide an important suggestion in the formation of wrinkles with age, as well as an useful information about cosmetics that are effective in preventing and improving wrinkles.

**Key words:** wrinkle measurement, PRIMOS<sup>®</sup>, three-dimensional analysis, visual evaluation, guidelines for wrinkle evaluation.