〈原　著〉

スティンギングテストの改良に関する研究
——サンプル適用における不織布使用と感覚刺激判定における カテゴリー評定尺度図の使用——

足利太可雄*，小 林　浩*，岡本　美樹*，岡本　純子*，板 垣　宏*，豊田　英一*

Improvement of the Stinging Test by Using Unwoven Fabric for Sample Application and a Categorical Rating Scale for Scoring of Sensory Irritation

Takao ASHIKAGA,* Hiroshi KOBAYASHI,* Miki OKAMOTO,* Junko OKAMOTO,* Hiroshi ITAGAKI,* Hidekazu TOYODA*

Abstract

Because of the increase in the number of people who believe that they possess the characteristic of sensitive skin, the assessment of skin sensory irritation potential is becoming more important in cosmetic product development. However, the stinging test has problems such as a shortage of subjects with high susceptibility to skin sensory irritation, and difficulty of scaling subjective sensation. The present studies were undertaken to improve the stinging test by using unwoven fabric for sample application and employing a categorical rating scale. The mean intensity of sensory irritation in the case of closed patch application was significantly higher than that of open application, so closed patch application using unwoven fabric could be a useful method for increasing sensitivity to skin sensory irritation potential. Furthermore, a categorical rating scale was developed for the purpose of making the scoring of sensory irritation clearly understandable. A stinging test using the categorical rating scale and a questionnaire were administered to ordinary people. The frequency of skin sensory problems was associated with both the self-perceived skin sensitivity and the stinging score. Thus, the improved method should be helpful for evaluating the skin sensory potential of chemicals.

Key words: stinging test, skin sensory irritation, kansei-engineering, sensitive skin.