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ONLINE ISSN : 1880-1986

PRINT ISSN : 1346-8235

Journal of Textile Engineering

Vol. 54 (2008) , No. 5 135-141

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Prediction Method for Wrinkle Grade by Image Analysis

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(Received July 15, 2008)

(Accepted for publication September 16, 2008)

Abstract: This paper describes an objective evaluation method for fabric wrinkles of shirts formed after washing. The fabric wrinkle images were measured by texture analysis and evaluated subjectively by experts. The textural features of wrinkle images have a significant correlation with wrinkle grades evaluated by experts. A principal component analysis with textural features of images was carried out, and also a multiple regression analysis was carried out using the two principle component scores as explanatory variables and wrinkle grades evaluated by experts as criterion variables. As the result, we proposed an objective evaluation equation for predicting wrinkle grades. It was found that the wrinkle grades predicted by the equation have a significant correlation with the result of subjective evaluation, and the fabric wrinkles of shirts after washing is objectively evaluated with our proposed equation.

Key Words: [Wrinkle after washing](#), [Wrinkle grade](#), [Sensory evaluation](#), [Textural analysis](#)

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To cite this article:

Toshio MATSUOKA, Hiroyuki KANAI, Hirokazu KIMURA, Takeyoshi KOUSO,
Kiyohiro SHIBATA and Toyonori NISHIMATSU, J. Text. Eng., Vol. **54**, p.135 (2008) .

JOI JST.JSTAGE/jte/54.135

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