

Abstract Submitted  
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**Applied research for quantitative analysis of fluorescent whitening agent in emulsion paint** LIN ZHANG, Hohai University — Fluorescent whitening agents (FWAS) are widely used in the emulsion paint for brightening effect. In spite of extensive use of FWAS, there are no reports about the measurement method of FWAS in emulsion paint. In this work, a very simple quantitative approach is proposed. Based on the digital grayscale images of three-dimensional fluorescence spectra and two-dimensional fluorescence images, several wavelet moment invariants are calculated and used to establish the standard models for the quantitative analysis. The influence factors of storage time and exposure time are also studied here. Measurement results indicated the feasibility and precision of using this method for quantitative analysis of FWAS. The research results also provides a reliable basis for the application of FWAS in emulsion paint. Keywords: fluorescent whitening agents, three-dimensional fluorescence spectra, fluorescence image, wavelet moment invariants

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