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Application of natural dye (neem) on silk fabric before and after exposure to UV/ozone

Nabawia A Abd Elzاهر¹, Ebtsam S Al-Amoudy² and Amal A El-Ebissy¹

¹National Institute for Standards, Egypt

²King Abdulaziz University, KSA

Neem plant as a source of natural dye was used to dye silk fabrics. This plant has not been exploited as natural dye by far. Optimization of natural dye extraction from leaves with respect to dye bath concentration to aid exhaustion was done. The effect of changed dye bath concentration on the reflectance spectra was followed using spectrophotometer tool. The changes in the optical parameters including the CIE tristimulus values, color parameters, absorption coefficient, absorption edge, band tail width, optical band gap, extinction coefficient and color strength were determined as a function of UV/ozone exposure times. The data obtained indicated that the color parameters were highly affected by changing dye concentration by this new dye. Finding shows that the natural dye extracted from leaves have good potential in textiles dyeing and can be exploited further. So, the present work gives the chance to produce different hues from a new traditional natural dye to improve the natural dyeing cultural heritage to meet the environmental future demands technology of high quality fantastic dyed pattern through an economical point of view.

nabawia@yahoo.com

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