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Effect of Dyeing on the Cotton/Polyester Blended Fabric Treated by Tetra Carboxylic Acid (BTCA) and Nano TiO2

Authors : Aryan Azad, Sun Jae Kim

Abstract : Cotton fabric is particularly prone to wrinkling. BTCA has been confirmed as the most effective reagent with sodium hypophosphite (SHP) as catalyst for decreasing the wrinkle issue. Using nano TiO2 as aco-catalyst could improve the catalytic reaction of the BTCA as well. In this study, the effect of dying process using reactive/disperse on the cotton/polyester blended fabric (65/35%) which is previously treated by nano TiO2 and BTCA, were investigated. Results were compared by samples which were not treated by nano TiO2 and BTCA by scanning electronic microscopy (SEM). Results showed, samples which were treated by mixing nano TiO2 and BTCA have not absorbed dye as much as untreated samples.

Keywords : cotton/polyester, dyeing process, nano titanium dioxide (TiO2), sodium hypophosphite (SHP), Tetra carboxylic acid (BTCA)
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