

Improving the Fastness and Antimicrobial Properties of Dyed Bamboo and Bamboo/ Cotton Blend with Eco-Friendly Materials

Dr. Nagda Ibrahim Mady

Assistant Professor, Department of Textile and Clothing, Faculty of Specific Education, Alexandria University.

Dr. Shaimaa Mohamed Atiha

Lecturer, Department of Textile and Clothing, Faculty of Specific Education, Alexandria University.

Abstract:

Abstract: Eco friendly effective fixing agent in dyeing bamboo fabrics with reactive dyes is chitosan. Bamboo dyeing is problematic with acidic dyes, and needs a fixing agent. Dye uptake was increased significantly with the increase of chitosan concentration gradually from 4% to 12%. Colour yield measured by K/S values gave the highest K/S value at the chitosan concentration 12%. Colour fastness was reduced in the treated samples than that of the untreated ones it was observed that there is reverse relation between colour yield and colour fastness. Antimicrobial activity was enhanced with the different chitosan concentrations, but the highest anti-microbial activity was recorded with the chitosan concentration 12%.

Keywords:

*Anti-microbial
fastness properties
chitosan
bamboo*