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Ultrasound-assisted pre-treatment and dyeing of jute fabrics with reactive and basic dyes

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Abstract

Ultrasonic dyeing has been investigated as a means to increase the diffusion of the dye molecules into the fiber for the dyeing of various fibers. However, for scouring, bleaching, and dyeing of jute fabrics, the beneficial effect of sonication was never realized. In this work, we report the effect of sonicated scouring and bleaching of jute fabrics on their physicommechanical properties and the dyeability in the conventional dyeing with reactive and basic dyes. The sonicated scoured and bleached fabric showed higher whiteness index and weight loss but the tensile strength and yellowness index decreased compared to the conventionally scoured and bleached jute fabric. The

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