Research article

Extraction and evaluation of dyeing quality of natural curcumin

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Abstract

Due to the eco-friendly approach of the natural dyes its use increasing day by day though there are some limitations with the use of the dyes. By improvement in extraction process of natural dyes and technique of dyeing it can be replace the synthetic dyes, which are problematic for environment and human health. This work deals with the extraction and purification of natural dyestuff from a plant Curcuma Longa L. and dyeing of cotton fabric by exhaust dyeing method. The main coloring component of turmeric is curcumin, which produces yellow color in the textile material. The purified curcumin produces various shades on cotton fabric with different dyeing parameters and use of mordants. The maximum K/S value was found with 10% concentration of dye in pH 7, with 80°C temperature of dyeing bath and the time taken was 45 minutes.