

**EFFECT OF ENZYMATIC PRE-TREATMENTS ON THE DYEING OF
COTTON FABRIC WITH THE PEELS OF DRAGON FRUIT
(*HYDROCEREUS UNDATUS*)**

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ABSTRACT

EFFECT OF ENZYMATIC PRE-TREATMENTS ON THE DYEING OF COTTON FABRIC WITH THE PEELS OF DRAGON FRUIT

(HYDROCEREUS UNDATUS)

In this study, the application of peels of dragon fruit as natural dye on cotton treated with cellulase and α -amylase was examined. Screening of the extraction methods show that darker colour was obtained when boiling extraction was used and the extraction was used throughout the study. Results of treated fabrics show better dye uptake when compared to untreated fabrics in the absence of mordants. The effect of mordants was evaluated based on the colourfastness of dyed fabrics. Results indicate that the treated fabric has a better colourfastness to washing in the absence or presence of mordants compared to untreated fabrics. Different enzymes produce different effect on fabric. Fabric treated with cellulase have better colourfastness to washing when compared to α -amylase with the used of mordants. Results indicate the use of slaked lime improved the colourfastness to washing properties of the treated and untreated fabrics. However poor colourfastness to light was observed for all samples either treated or untreated.