



FACULTY OF INDUSTRIAL TECHNOLOGY

1.3

DEPARTMENT OF TEXTILE TECHNOLOGY

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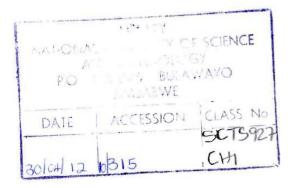
FINAL YEAR PROJECT

INVESTIGATION ON THE USE OF NATURAL MORDANTS IN THE DYEING OF NATURAL DYES

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Abstract

The use of eco-friendly natural mordants has become a matter of significance due to environmental awareness in a bid to avoid some hazardous metallic mordants. The project is therefore concerned with the extraction and application of eco-friendly natural mordants from plant sources locally available in Zimbabwe. Mordant extraction processes of refluxing and distillation with ethanol yielded 7.4% gum tree bark extract and 6.1% groundnut shell extract which had 211°C and 169°C melting points respectively. The extracted mordants were used for dyeing of cotton fabrics with different mordant concentrations, varying dye concentrations and varying mordanting procedures. Fastness tests were conducted, the staining and changing in colour were assessed using standard grey scales and the results fall within the ISO range.