

International Journal on Advanced Science, Engineering and Information Technology

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#1014 Summary

SUMMARY REVIEW EDITING

Submission

Authors	Nita Kusumawati, Agus Budi Santoso, Maria Monica Sianita, Supari Muslim
Title	Extraction, Characterization and Application of Natural Dyes from the Fresh Mangosteen (<i>Garcinia mangostana</i> L.) Peel
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Submitter	Nita Kusumawati Kusumawati 
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Title and Abstract

Title Extraction, Characterization and Application of Natural Dyes from the Fresh Mangosteen (*Garcinia mangostana* L.) Peel

Abstract This study is conducted to explore and utilize fresh mangosteen peel as an upcoming raw material for the production of natural dyes. The extract of fresh mangosteen peel is tested on cotton fabric by using alum as mordanting agent which processed by pre mordant dyeing procedure and fixation using 3 (three) different types of fixer. To obtain optimum interaction of fabric, mordant, dye and fixer, washing procedure has been performed using Turkish Red Oil (TRO) before mordanting stage with varying washing time and repeated dyeing procedure with varying frequency of dyeing. As a result, the application of pre mordanting dyeing method and fixation using iron (II) sulphate ($\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$), alum ($\text{KAl}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$) and lime (CaO), produced very good color from mangosteen peel dyes extract. Cotton fabric that has been through the pre-mordanting dyeing procedure using dyes extract of mangosteen peel consecutively bring green, light brown, and dark brown color each on the fixation result using iron (II) sulfate, alum, and lime. Preliminary evaluation and instrumentation allows us to determine whether the application of washing time varies, the repeated frequency of immersion, and the use of different fixer compound using dyes extract with similar concentration and dyeing procedure affect the color intensity of the fabric sample.

Indexing

Keywords Natural dyes; *Garcinia mangostana* Linn; Pre mordanting, Fixer
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References

References —

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#1014 Editing

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