SUPERHEATED WATER EXTRACTION (SWE) OF NATURAL DYES FROM PLANTS FOR DYEING SILK FABRICS

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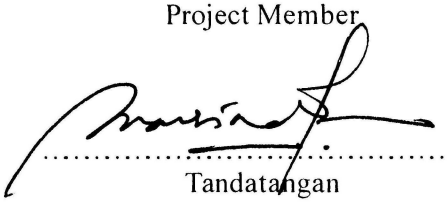

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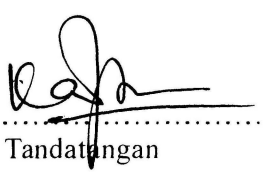

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ABSTRACT

Most of the natural colourants used for dyeing fabrics were extracted from plants by boiling technique which required long extraction time and plenty of water. In this study, a rapid and eco-friendly extraction method (SWE) using water at different elevated temperatures was introduced to extract natural dyes. The results showed that a more concentrated sample extracts with higher intensity of colour was produced by SWE compared to boiling method. The silk fabrics dyed with sample extracts obtained by SWE at different temperatures gave a variety of colour shades and has a comparable colourfastness on washing and rubbing based on Malaysian Standard Testing Method (MS ISO 105). SWE has a good potential to be introduced to textile dyers as it is rapid, simple, inexpensive to perform and environmental friendly.