The quantitative evaluation of condensed tannins as a natural dyeing fixative agent from *Combretum latifolium* dyestuff

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Abstract:

Combretum latifolium (Combretaceae) collecting in the South of Thailand are called as Auad-Chuak. The air-dried ground stems of *C. latifolium* was soaked in a water at 90-100°C to afford a maroon extract (pH 5.6) containing anthocyanins as a natural dyestuff together with condensed tannins as dyeing fixative agent. The water extract of *C. latifolium* was analyzed for color values using colorimeter to show a lightness value (L*) of 24.0±0.6, a red value (a*) of 35.8±0.3 and a yellow value (b*) of 39.7±0.8. The aim of this research was to evaluate the amount of condensed tannin from *C. latifolium* dyestuff by acid-butanol assay using UV-VIS spectrophotometer and detection at the maximum wavelength of 550 nm. As the result, it was found that the total condensed tannins content showed 9.3±0.02 mg equivalent of catechin per gram (g) of dried plant. The cotton yarn was dyed at 80°C and room temperature to appear L*, a* and b* values of 56.5±4, 65.4±1.0, 15.1±1.4, 11.5±0.6 and 24.9±1.5 and 22.1±0.5, respectively, by comparison with the without dyed cotton yarn (L* = 79.6, a* = 3.0 and b* = 11.9). As according to this knowledge, it would be useful for application in textile industry.

References:

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