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Proceedings

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**June NGO SIOK
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« Soluble Powder Natural Dyes from Malaysia »

In collaboration with : **Ong Wan Fen**, Faculty of Applied and Creative Arts – **Fasihuddin Badruddin Ahmad**, Faculty of Resource Science and Technology and **Kopli Bujang**, Centre of Excellence for Sago Research, University of Malaysia Sarawak

In recent years, the number of textile craft practitioners in Malaysia using natural dyes in their work has dwindled drastically due to the tedious process of extracting the colours. Besides, some of the plants and fruit used for natural dyeing are seasonal. Thus, in order to reduce the processes involved in dyeing using natural dyes and have the natural dyes readily available, it has to be converted into powder form. This paper highlights an on-going research on producing soluble powder natural dyes extracts from the Sebangki bark (Neesia sp.), Engkerabal leaves (Psychotria viridiflora) and Mengkudu root (Morinda citrifolia). These three natural colorants are typically used by the local Iban community in Sarawak to dye the silk and cotton threads for Pua Kumbu weaving. The two primary objectives of this research are to convert the extract of the natural dyes into soluble powder form using solvent extraction method and formulate textile dyeing recipes with good colorfastness and lightfastness using the powder natural dyes extracts.

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Patrick BRENAC
Company Couleurs de
Plantes, Rochefort-sur-
Mer (France)

« Natural colors for green products – advances on industrial production, quality, markets »

Couleurs de Plantes is a manufacturer of natural colors (dye extracts, pigments, specialties) for industries, crafts or private applications. An overview of our activities was presented at ISEND 2008. Based on our experience and requirements to develop the use of natural dyes, this conference will focus on related topics including raw materials, quality & color control, standardization, tracking, market evolutions...

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Soluble Powdered Natural Dyes from Malaysia

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Abstract

In recent years, the number of textile craft practitioners in Malaysia using natural dyes in their work has dwindled drastically due to the tedious process of extracting the colours. Some of the plants and fruits used for natural dyeing also are seasonal. Thus, in order to have the natural dyes readily available throughout the year, it has to be converted into powdered form. This paper highlights an on-going research that produces soluble powdered natural dye extracts from the *Sebangki* bark (*Neesia* spp., *Bomb.*; *Tristaniopsis* spp., *Myrt.*), *Engkerabai Paya* leaves (probably *Psychotria viridiflora* Zoll. ex. Miq.) and *Engkudu* roots (*Morinda citrifolia* L.). These three natural colourants are typically used by the local native Iban community in Sarawak to dye silk and cotton threads for Pua Kumbu weaving. The two primary objectives of this research are to convert the extract of the natural dyes into soluble powdered form using solvent extraction method and to formulate textile dyeing recipes with good colourfastness and lightfastness using the powdered natural dyes extracts. The results of the experiments have proven that (i) the usage of distilled water and ethanol as solvents to extract the natural dyes from *Neesia* spp., *Bomb.*; *Tristaniopsis* spp., *Myrt.* bark, *Morinda citrifolia* L. roots, *Psychotria viridiflora* Zoll. ex. Miq. leaves and also (ii) the freeze drying method to convert the liquid dye extract into soluble powdered form, have been successfully carried out. Textile dyeing recipes using the soluble powdered extract were also successfully formulated.

Keywords: Solvent extraction method, soluble powdered natural dyes extracts, *Neesia* spp., *Bomb.*; *Tristaniopsis* spp., *Myrt.*, *Psychotria viridiflora* Zoll. ex. Miq., *Morinda citrifolia* L., textile dyeing

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