International Symposium and Exhibition on Natural Dyes

Proceedings

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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 ongoing research on producing soluble powder natural dyes extracts from the Sebangki bark (Neesia sp.), Engkerabal leaves (Psychotria viridisflora) 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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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...
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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