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**Study of phenolic content and anti-microbial activity of Thai sappan wood and pomegranate peel extracts**

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Thai sappan wood and pomegranate peel were extracted by maceration technique with water and ethanol as a solvent. The total phenolic content with Folin-Ciocalteu colorimetric method and antimicrobial activity were studied in these extracts. The result showed that the ethanol extract of pomegranate peel had the highest total phenolic content ( $73.53 \pm 0.04$  mg GAE/g) followed by the water extract of pomegranate peel ( $70.29 \pm 0.04$  mg GAE/g), the ethanol extract of sappan wood and the water extract of sappan wood ( $61.71 \pm 0.02$  mg GAE/g and  $56.36 \pm 0.06$  mg GAE/g), respectively. The agar well diffusion method followed with macro-broth dilution were employed to evaluate the antimicrobial activity against four strains of bacteria (*Micrococcus sedentarius* DMST 9365, *Micrococcus sedentarius* DMST 37451, *Corynebacterium xerosis* DMST 17001, and *Propionibacterium acnes* DMST 14914) and one strain of yeast (*Candida albicans* ATCC 10231). Moreover, the results also presented that both water and ethanol extract of sappan wood had better antimicrobial activities against all four strains of bacteria than the water extract and the ethanol extract of pomegranate peel. Meanwhile, the water extract and the ethanol extract of pomegranate peel showed the higher antimicrobial activity against *Candida albicans* than the water extract and the ethanol extract of sappan wood.

**Biography**

Subongkoch Subtaeng is a senior researcher and head of research and development group of Thai herbal products in the Department of Science Service, the Ministry of Science and Technology, Thailand.

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