[Heterocycles, **43**, 1999-2004 (1996)] [Lab. of Pharmacognosy]

Two New Dimeric Xanthones in *Mesua ferrea*.

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Messua ferrea is an indigenous plant to tropical Asia. The seed is used as a traditional medicine against eczema and rheumatism, and the flowers are also supplied to aroma and expectorant in mental disturbance in Indonesia. Two new dimeric xanthones linked through a C_5 unit, mesuferrols A and B, were isolated from the bark of *M. ferra*, in addition to two know xanthones. The structures of these compounds were elucidated by the aids of spectroscopic analysis including 2D NMR technique.

[Chem. Pharm. Bull., **44**, 1744-1747 (1996)] [Lab. of Pharmacognosy]

Three New Benzophenone-xanthone Dimers from the Root of *Garcinia dulcis*.

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Investigation of the chemical constituents of the roots of *Garcinia dulcis* resulted in the isolation of three new benzophenone-xanthone dimers named garciduols A-C in addition to a new xanthone, 1,3,6-trihydroxy-7-methoxyxanthone.Five known xanthones were also isolated from the roots. Their structures were determined by spectroscopic analysis including 2D NMR. The behaviors of chemical shifts caused by acetylation and the position of the methoxyl group in the dimers characterized by model synthetic bezophenones are also discussed.

[J. Pharm Pharmacol., **48**, 861-865 (1996)] [Lab. of Pharmacognosy]

Antibacterial Activity of Xanthones from Guttiferaeous Plants against Methicillin-resistant *Staphylococcus aureus*.

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Extracts of *Garcinia mangostana* showing inhibitory effects against the growth of *Staphylococcus aureus* NIHJ 209p were fractionated according to guidance obtained from bioassay and some of the components with activity against methicillin-resistant Staphylococcus aureus (MRSA) were characterized.

One active isolate, α-mangostin, a xanthone derivative, had a minimum inhibitory concentration (MIC) of 1.57-12.5 μg/ml. Other related xanthones also examined to determine their anti-MRSA activity. Rubraxanthone, which was isolated from *G. dioica* and has a structure similar to that of α-mangostin, had the highest activity against staphylococal strain (0.31-1.25 μg/ml, an activity which was greater than that of the antibiotic vancomycin.