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Anti-fungal activity of xanthones from *Calophyllum thwaitesii*

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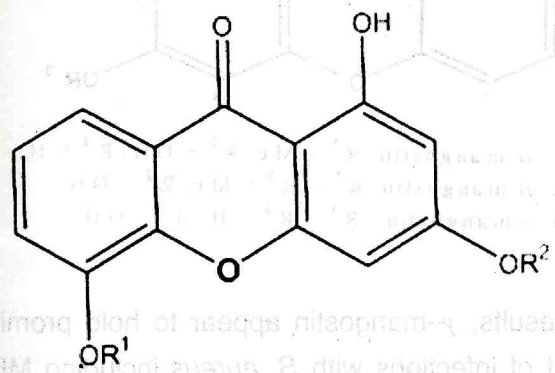
As a part of our continuing biochemical investigations on Sri Lankan flora, in our present study we have tested the anti-fungal activity of extracts of *Calophyllum thwaitesi* (root stem), *C. cordato-oblongum* (twigs and stem bark) and *C. moonii* (stem) against *Caladosporium* and *Aspergillus* strains using TLC bioassay and disk diffusion method respectively. However, only the methanol extract of the root stem of *C. thwaitesii* showed anti-fungal activity against above strains. The active extract was subjected to activity guided fractionation. Column chromatography of the methanol extract of the root stem of *C. thwaitesii* gave five active fractions against *Cladosporium*. Of them three fractions were found to be active against *Aspergillus*. Further column chromatography on one of the above active fractions, followed by PTLC and HPLC, gave five active principals as yellow crystalline compounds. Spectroscopic studies indicated that two of the active compounds against *Caladosporium* and *Aspergillus* as 1,3-dihydroxy-5-methoxyxanthone (i) and 1-hydroxy-3,5-dimethoxyxanthone (ii).

Further anti-fungal activity studies on the remaining active fractions, and structure elucidation of unidentified active compounds are in progress. In our study, we have modified the disk diffusion method which commonly used in bacterial studies to suite our studies on filamentous fungi like *Aspergillus*.



1. R^1=OMe, R^2 = OH

2. R^1 = R^2 = OMe

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