Anti-fungal activity and Freeradical Scavenging property of xanthones from *Calophyllum thwaitesii*

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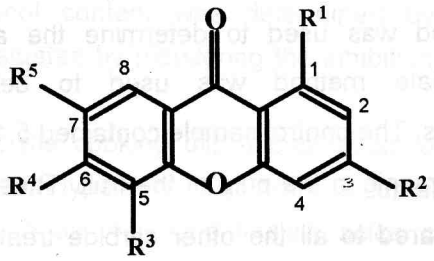
As a continuation of our work on search for biologically active molecules from Sri Lankan plants, further investigations were carried out on the same plant extract. Activity guided fractionations on different fractions yielded four anti fungal compounds against strains of *Cladosporium* and *Aspergillus.* TLC bioassay and modified disk diffusion methods were employed for *Cladosporium* and *Aspergillus* respectively. Anti fungal xanthones were identified as 1,6-dihydroxy-5-methoxyxanthone(**1**), 1-hydroxy-5,6-dimethoxyxanthone(**2**), 1-hydroxy-5-methoxy-xanthone (**3**) and 1-methoxy-5-hydroxyxanthone(**4**) using spectroscopic methods and comparison with literature data. Three inactive compounds were identified as 1-hydroxy-7-methoxyxanthone(**5**), 1,7-dihydroxyxanthone(**6**) and 1,5-dihydroxy-6-methoxy-xanthone(**7**). Further, five of the above xanthones, thwaitesixanthone and calothwaitesixanthone showed free radical scavenging properties, when tested with DPPH. The latter two xanthones were previously reported from the same species.



1. $R^1 = R^4 = OH$, $R^3 = OMe$, $R^2 = R^5 = H$
2. $R^1 = OH$, $R^3 = R^4 = OMe$, $R^2 = R^5 = H$
3. $R^1 = OH$, $R^3 = OMe$, $R^2 = R^4 = R^5 = H$
4. $R^1 = OMe$, $R^3 = OH$, $R^2 = R^4 = R^5 = H$
5. $R^1 = OH$, $R^5 = OMe$, $R^2 = R^3 = R^4 = H$
6. $R^1 = R^5 = OH$, $R^2 = R^3 = R^4 = H$
7. $R^1 = R^3 = OH$, $R^4 = OMe$, $R^2 = R^5 = H$

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