
SUMMARY

The work deals with the phytochemical investigations on leaves of *Calophyllum decipiens* belonging to Clusiaceae family. Detailed phytochemical investigation was conducted on the ethyl acetate extracts of the leaves of *Calophyllum decipiens* leading to the isolation and characterization of six compounds. Isolation processes were conducted by column chromatographic methods and characterisations were affected by different spectral techniques such as IR, mass, ¹H NMR, ¹³C NMR, DEPT.

Column chromatographic separation of ethyl acetate extract of *Calophyllum decipiens* yielded six compounds and were identified as friedelan-3-one, β-amyrin, 3β-hydroxy-olean-5(6)-ene, stigmatsterol, thwaitesiixanthone and apetalic acid.

The antioxidant potential of the methanolic extract of the leaves of *Calophyllum decipiens*, its hexane fraction, chloroform fraction and apetalic acid were evaluated. The individual activities were ascertained and compared with the activity of trolox, the standard material used in this case. Hexane fraction and chloroform fraction possessed moderate antioxidant activity with a slightly higher value for the former, but total methanolic extract possessed the lowest antioxidant activity. Apetalic acid possessed appreciable amount of antioxidant potential which was evident from the high values of percentage inhibition and TEAC were taken. Antibacterial activity studies with *Mycobacterium tuberculosis H37Rv* showed that apetalic acid showed inhibition at 100 µg/ml but thwaitesiixanthone was inactive to these bacteria.