

STUDIES ON INDIAN MEDICINAL PLANTS, 78.¹
CHEMICAL INVESTIGATION OF *MALVAISCUS CONZATTII*

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The reported antifertility property of the methanolic extract of *Malvaiscus conzattii* Greenm. (Malvaceae) flowers (1, 2) prompted us to investigate the plant chemically. We report here the isolation of β -sitosterol, β -sitosterol- β -D-glucoside, allantoin, kaempferol, kaempferol-3- β -glucoside, and kaempferol-3- β -sophoroside from this plant. The presence of kaempferol derivatives in the plant may be of significance in relation to its antifertility activity because the closely related compounds, quercetin and robinin, have been reported (3) to show estrogenic activity.

EXPERIMENTAL

GENERAL EXPERIMENTAL PROCEDURES.—Spectra were recorded with the following instruments: ir, Perkin Elmer Model 177; nmr, JEOL FX-100; uv, Carl Zeiss Jena specord uv-vis spectrometer. Absorbents for tlc and cc were supplied by BDH, India.

PLANT MATERIAL.—Flowers of *M. conzattii*, collected locally, were supplied by M/s United Chemicals and Allied Products, Calcutta. A voucher specimen is available with the suppliers.

EXTRACTION AND ISOLATION.—Air-dried flowers (4 kg) were extracted with cold MeOH. Standard solvent-solvent extraction and chromatographic procedures afforded β -sitosterol (20 mg), β -sitosterol- β -D-glucoside (50 mg), allantoin (10 mg), kaempferol (1 g), kaempferol-3- β -glucoside (1.5 g), and kaempferol-3- β -sophoroside (3 g). The compounds were identified from spectral data and, in some cases, by standard sample comparisons. For the glycosides, hydrolysis experiments and cmr (for the diglycoside) provided concluding evidence.

Full details of isolation and identification of the compounds are available on request to the senior author.

ACKNOWLEDGMENTS

One of the authors (KB) is grateful to CSIR, New Delhi, for a fellowship.

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Received 5 January 1984

¹For Part 77, see A.K. Chakravarty, B. Das, E. Ali, and S.C. Pakrashi, *J. Chem. Soc., Perkin Trans. I*, 467 (1984).