

ANGIOSPERMAE
DICOTYLEDONAE

APOCYNACEAE

IRIDOID GLUCOSIDES OF *CERBERA MANGHUS*

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Plant. *Cerbera manghus* L. *Source.* Yabu, Okinawa. *Uses.* Medicinal uses in Thailand.¹
Previous work. Oil² and cardiac glycosides³ of seeds.

Leaf. The methanolic extract was concentrated, H₂O, added, and extracted successively with CHCl₃, AcOH and *n*-BuOH. The *n*-BuOH layer was concentrated, chromatographed over charcoal using H₂O–MeOH as eluent. Fractions giving blue coloration on heating with mineral acid were collected and concentrated to dryness. The residue was chromatographed over silica gel with CHCl₃–MeOH as eluent with increasing MeOH concentration. *Theviridoside* (UV, IR, NMR, TLC), pentaacetate, m.p. 125–125.5°, (m.m.p., UV, IR, NMR, TLC). Aq. layer obtained after the separation of the *n*-BuOH layer described above was also chromatographed over charcoal: *Theveside* (UV, IR, NMR, TLC). Its methyl ester was identical with theviridoside (IR, NMR, TLC).

Fruit. Theveside and a small amount of theviridoside.

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¹ SAMAKHOM RONGRIEN PHAET PHAEN BORAN, *Pramuan Sapphakhun Ya Thai*, Part 2, p. 114 (1967).

² K. KAFUKU, C. HATA and M. FUJIKAWA, *Nippon Kagaku Zasshi* **55**, 375 (1934); *ibid.* **57**, 723 (1936).

³ T. MATSUBARA, *Nippon Kagaku Zasshi* **58**, 1109 (1937); *ibid.* **60**, 1195, 1201, 1230, 1237, 1239 (1939).

Key Word Index—*Cerbera manghus*; Apocynaceae; iridoids; theviridoside; theveside.

ACETOPHENONES OF THE ROOTS OF *NERIUM ODORUM*

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Plant. *Nerium odorum* Sol. *Uses.* Root barks were used in skin disease and inflammatory affections in India. *Previous work.* On glycosides of stem bark¹ and leaves of *N. odorum*,²

¹ W. RITTEL and T. REICHSTEIN, *Helv. Chim. Acta* **37**, 1361 (1954), and preceding reports.

² M. ISHIDATE and Z. TAMURA, *Yakugaku Zasshi* **70**, 7 (1950); M. OKADA, *ibid.* **73**, 86 (1953); T. TAKEMOTO and K. KOMETANI, *ibid.* **74**, 1263 (1954); T. YAMAUCHI and Y. EHARA, *ibid.* **92**, 155 (1972).

and of *N. oleander*,³ seeds of *N. oleander*,⁴ and on cyclitols of roots.⁵

Present work. Acetophenones were obtained from the ether extracts of the root-bark or heartwood on silica gel column chromatography with benzene-acetone as eluting solvent. *2,4-Dihydroxyacetophenone*: m.p. 148–149° (0.0013% of dried bark and 0.0001% of heartwood freed from bark; m.m.p., IR, TLC). *4-Hydroxyacetophenone*: m.p. 108–110° (0.0005% of dried bark; m.m.p., IR, TLC).

³ R. TSCHESCHE, P. K. CHARDHURI and G. SNATZKE, *Naturwissenschaften* **51**, 139 (1964), and preceding reports; W. NEUMANN, *Chem. Ber.* **70**, 1547 (1937); B. GÖRLICH, *Plant Med.* **9**, 442 (1961).

⁴ H. JÄGER, O. SCHINDLER and T. REICHSTEIN, *Helv. Chim. Acta* **42**, 977 (1959).

⁵ S. NISHIBE, S. HISADA and I. INAGAKI, *Phytochem.* **10**, 896 (1971).

Key Word Index—*Nerium odorum*; Apocynaceae; 4-hydroxy-acetophenone; 2,4-dihydroxyacetophenone.

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BUXACEAE

ALKALOIDS OF *BUXUS WALLICHIANA*

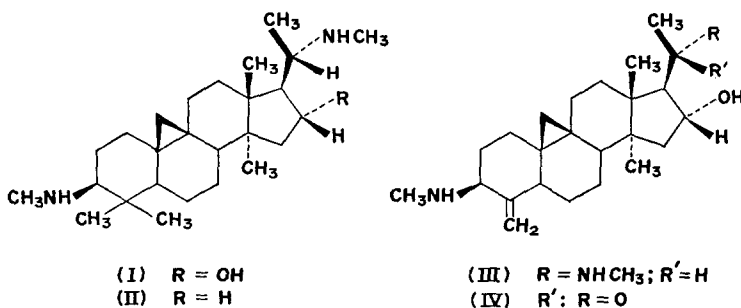
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Plant. *Buxus wallichiana* Baill¹ from India. **Previous extraction.** None but species of *Buxus* are normally sources of steroidal alkaloids.²

Extraction and isolation. Ground dried leaves (4.2 kg) of *B. wallichiana* were extracted by percolation with MeOH at room temp. Evaporation left a black gum which was taken up in 2% aq. HCl and the neutral materials (19 g) removed by continuous CHCl₃ extraction.



¹ We thank Dr. W. I. TAYLOR (International Flavors and Fragrances, N.J.) for the plant material and the Bronx Botanical Gardens, N.Y. for the identification.

² V. CERNY and F. SORM, *Steroid Alkaloids in the Alkaloids* (edited by R. H. F. MANSKE), Vol. IV, p. 305, Academic Press, New York (1967).