

SHORT COMMUNICATION

ISOLATION OF MANGIFERIN FROM THE BARK OF *MANGIFERA ZEYLANICA*

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Plant. *Mangifera zeylanica* Hook. f.—Anacardiaceae. Endemic to Ceylon.^{1,2}

Uses. Medicinal.³

Isolation and identification. 380 g of dried bark was extracted with boiling light petroleum to remove fatty matter, then with cold acetone to remove tannins, and finally with boiling 70% ethanol.⁴ Concentration of the ethanolic extract gave 15.2 g of mangiferin as pale-yellow needles, m.p. and m.m.p. 270° (decomp.). (Found: C, 53.89; H, 4.44. Calc. for $C_{19}H_{18}O_{11}$: C, 54.00; H, 4.30%.) Paper chromatographic behaviour, i.r., u.v. and NMR spectra were identical with recorded data for authentic mangiferin.⁴⁻⁶ Oxidation with $FeCl_3$ gave D-glucose. Acetylation with boiling Ac_2O gave mangiferin hepta-acetate as pale-yellow needles, m.p. 228–229°. (Found: C, 55.18; H, 4.43. Calc. for $C_{33}H_{32}O_{18}$: C, 55.31; H, 4.46%.) The NMR spectrum of the hepta-acetate was identical with recorded data for authentic mangiferin hepta-acetate.⁵

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¹ H. TRIMEN, *Handbook to the Flora of Ceylon*, Part 1, p. 317, Dulau, London (1893).

² *Wealth of India*, Vol. 6, p. 285, CSIR, New Delhi, India (1962).

³ F. LEWIS, *The Vegetable Products of Ceylon*, p. 123, The Associated Newspapers of Ceylon Ltd., Colombo (1934).

⁴ V. K. BHATIA, J. D. RAMANATHAN and T. R. SESHADRI, *Tetrahedron* **23**, 1363 (1967).

⁵ D. BILLET, J. MASSICOT, C. MERCIER, D. ANKER, A. MATSCHENKO, C. MENTZER, M. CHAIGNEAU, G. VALDENER and H. PACHECO, *Bull. Soc. Chim. France* 3006 (1965).

⁶ L. J. HAYNES and D. R. Taylor, *J. Chem. Soc. (C)* 1685 (1966).