

EUPHORBIACEAE

TRITERPENOID AND OTHER COMPONENTS OF *MALLOTUS PHILIPPINENSIS*

M. BANDOPADHYAY, V. K. DHINGRA, S. K. MUKERJEE, N. P. PARDESHI and
T. R. SESHADRI

Department of Chemistry, University of Delhi, Delhi-7, India

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Plant. Mallotus philippinensis. Uses. The fruit coats of the tree yield a dye, Kamala dye, also used as a drug. *Previous work.* Kamala dye^{1,2} in seed coat; bergenin in the bark.³

Present work. Heartwood. (i) *Petroleum* (b.p. 60–80°) *extract:* chromatography over silica gel; *Betulin-3-acetate* (major), new as a natural product but synthetically known,⁴ hence compared with the synthetic sample by m.p., m.m.p., IR, TLC and NMR; *Lupeol acetate* (m.p., m.m.p., IR and TLC); *sitosterol* (m.p., m.m.p., IR and TLC); *Lupeol* (m.p., m.m.p., IR and TLC). (ii) *Alcohol extract:* Bergenin³ (major, yield 0.5%) m.p., m.m.p., IR, TLC, NMR, *m/e*. *Bark.* (i) *Petroleum extract:* chromatography over silica gel; *Acetylaleuritolic acid*⁵ (0.006%) recently isolated from *Croton oblongifolius* (stem bark), compared with the authentic sample by m.p., m.m.p., TLC, IR, NMR and mass spectra and also with derivatives, e.g. hydroxy carboxylic acid, acetoxymethyl ester and hydroxymethyl ester; α -*amyrin* (m.p., m.m.p., IR and TLC); *sitosterol* (m.p., m.m.p., IR and TLC). (ii) *Ether extract.* *Sitosterol glucoside* (m.p., m.m.p., IR and TLC) and hydrolysis by acid to sitosterol and glucose; *Acetylaleuritolic acid*. (iii) *Alcohol extract:* Bergenin³ (yield 0.5%, m.p., m.m.p., IR and TLC). *Leaves.* *Alcohol extract.* Bergenin³ in poor yield.

¹ L. CROMBIE, C. L. GREEN, B. TUOX and D. A. WHITING, *J. Chem. Soc.* 2625 (1968).

² GIULIANA CARDILLO, LUCIA MERLINE, ROSANNA MORDELLI and LUCCANO MORESCHINI, *Gazz. Chim. Ital.* 95, 725 (1965).

³ VICTOR PLOUVIER, *Compt. Rend.* 258, 2921 (1964).

⁴ R. VESTERBERG, *Chem. Ber.* 60, 1535 (1927).

⁵ V. NAMBI IYER and T. R. SESHADRI, *Indian J. Chem.* 9, 1028 (1971).

Key Word Index—*Mallotus philippinensis*; Euphorbiaceae; acetylaleuritolic acid; lupeol and betulin acetates; α -amyrin.