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EXTRACTIVES FROM *SALVIA BELLOTAEFLORA*

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Key Word Index—*Salvia bellotaeflora*; Labiatae; epioleanolic acid; oleanolic acid; sitosterol.

Plant. Salvia ballotaeflora, Benth. Voucher No. 7185-I.T.E.S.M. *Previous work.* None, only on several sister species.[1] 3-Epioleanolic acid has been found once in a plant.[2] *Uses.* Medicinal purposes.

The dried aerial parts (1200 g) were extracted with light petroleum (b.p. 30–60°) yielding on evaporation of the solvent, 16·26 g (1·32%) of a dark brown residue. This residue was chromatographed over silicic acid. Benzene–hexane elution afforded 310 mg of sitosterol, $C_{29}H_{56}O$, m.p. and mixed acetyl, m.p., m.m.p. and co-TLC.

Benzene–Et_2O (8:1) elution gave 3-epioleanolic acid (887 mg), $C_{30}H_{48}O_3$ *m/e* 456 (M^+) m.p. 297–299°, mixed with oleanolic acid melted at 275–280°. $[\alpha]_{589}^{25}$ +72·6°; $[\alpha]_{578}$ +77°; $[\alpha]_{365}$ +235° (chl.) Acetate, m.p. 270°, $[\alpha]_{589}$ +63°; $[\alpha]_{578}$ +75°; $[\alpha]_{546}$ +83°; $[\alpha]_{436}$ +140° $[\alpha]_{365}$ +209° (chl). Methyl, 3-epi-oleanolate, $C_{31}H_{50}O_3$, m.p. 195°, $[\alpha]_{589}$ +45°. The benzene-Et_2O (1:4) eluate gave 343 mg of oleanolic acid, $C_{30}H_{48}O_3$, m.p. 302–305°, $[\alpha]_{589}^{25}$ +72·8° (chl). Acetate, m.p. 265° $[\alpha]_{589}^{25}$ +74° (chl). m.m.p. with an authentic specimen.

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MELIACEAE

ISOLATION OF OBACUNOL FROM *LOVOA TRICHILIODES*

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Key Word Index—*Lovoa trichiliodes*: Meliaceae; limonoids; obacunol.

Lovoa is a small genus of the Meliaceae, occurring in East and West Africa. Eleven species have been described, of which three are commonly accepted, although all are very similar and may be conspecific. We have examined the West African species *L. trichiliodes* Harms. for limonoids. The only crystalline compound obtained from the timber was cycloeucalenol. The seeds contained a complex mixture of bitter substances from which we have not