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SHORT COMMUNICATION

TRITERPENOIDS OF *MIMUSOPS MANILKARA* TRUNK BARK

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Plant. *Mimusops manilkara* syn. *Achras sapota*—N.O. Sapotaceae.

Uses. Edible fruit,[1] medicinal.[2]

Previous work. Fruit pulp,[3] seed kernel,[3,4] testa[3] and leaves.[5] On other species *M. hexandra*[6-8] and *M. elengi*.[8-10]

Trunk bark. Extr. EtOH; *n*-hexane soluble fraction: *Taraxerol*, $C_{30}H_{50}O$, m.p., mixed m.p., $(\alpha)_D$; acetate, $C_{32}H_{52}O_2$, m.p. $(\alpha)_D$; acid (HCl) isomerization[11] to β-amyrin. *Taraxerone*, $C_{30}H_{48}O$, m.p., mixed m.p.[12] $(\alpha)_D$, ν_{max} 1708 cm^{-1} (six-membered 3-ketone);[13] 2,4-DNP derivative, m.p. 270–272°. (Found: N, 9·12, Calc. for $C_{36}H_{52}O_4N_4$: N, 9·27%.) Bromo-derivative, m.p.; reduction ($LiAlH_4$) to taraxerol and isomerization[11] to β-amyrone.

Taraxerol methyl ether (crusgallin or sawamilletin, from the Gramineae;[14,15] this is the first report of its occurrence in dicotyledonous plant), $C_{31}H_{52}O$, m.p. 280–282° $(\alpha)_D \pm 0°$, ν_{max} 1105 cm^{-1} (ether linkage),[16] NMR singlet at 6·68 τ (—OCH_3)[16,17] with other important peaks, mass spectral fragmentation similar to the cracking pattern reported,[17] isomerization[11] to β-amyrin methyl ether, m.p. $(\alpha)_D$; identity of taraxerol methyl ether was established by mixed m.p. and superposable i.r. spectra with that of the synthetic[18] material.

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Acetates of α- and β-amyrin. $C_{32}H_{52}O_2$, m.p., mixed m.p. $(\alpha)_D$, i.r.; alkali hydrolysis to acetic acid (positive lanthanum nitrate–iodine test)[19] and their respective alcohols; SeO_2 oxidation[6] distinguished the latter from the former.

Lupeol, α- and β-amyrins. $C_{30}H_{50}O$, m.p., mixed m.p. $(\alpha)_D$, i.r.; m.p. mixed m.p. $(\alpha)_D$ of their acetates.

Hexane insoluble middle layer: *β-D-Glucoside of β-sitosterol,* $C_{35}H_{60}O_6$, m.p., mixed m.p., $(\alpha)_D$, i.r.; m.p. $(\alpha)_D$ of tetra-acetate, $C_{43}H_{68}O_{10}$, and tetra-benzoate, $C_{63}H_{76}O_{10}$.

Alcoholic mother liquor: *Quercitol,* $C_6H_{12}O_5$, m.p., mixed m.p. $(\alpha)_D$; penta-benzoate, m.p., mixed m.p. and $(\alpha)_D$.

Unlike the stem bark of *Mimusops hexandra*[7] and *M. elengi,*[10] the *M. manilkara* trunk bark lacked cinnamyl ester and sterol. The co-occurrence of taraxerone, taraxerol and taraxerol methyl ether is of interest.

The method of isomerization of taraxerol derivatives to the corresponding β-amyrin derivatives by refluxing (3–4 hr) with alcoholic HCl (3–5%) has been found to be simpler to that reported by earlier authors.[11] It has been successfully tried with taraxerol, taraxerone, taraxeryl acetate as well as taraxerol methyl ether without affecting the functional groups present.

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