

SHORT COMMUNICATION

THE PETROLEUM ETHER EXTRACTIVES OF
*TABERNAEMONTANA PACIFICA**

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Plant: Tabernaemontana pacifica Seem. (Apocynaceae)

Uses. Not known

Previous work. On sister species.¹⁻²⁴

Bark. (Extracted petrol. ether, chromatographed—kieselgel.)

Triterpene acetates from petrol. ether:ether (49:1) fractions, separated by chromatography on argentized kieselgel into α -amyrin acetate, $C_{32}H_{52}O_2$ (0.26 per cent of the bark;

* Part I in a projected series "The Constituents of the Apocynaceae".

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m.p., mxd. m.p., $[\alpha]_D$, i.r., TLC), *ψ -taraxasterol acetate*, $C_{32}H_{52}O_2$ (0.004 per cent; m.p., mxd. m.p., i.r., TLC), *lupeol acetate*, $C_{32}H_{52}O_2$ (0.4 per cent; m.p., mxd. m.p., $[\alpha]_D$, i.r., TLC), *β -amyrin acetate*, $C_{32}H_{52}O_2$ (0.34 per cent; m.p., mxd. m.p., $[\alpha]_D$, i.r., TLC).

Triterpene ketones from petrol. ether:ether (49:1) fractions, separated by chromatography on argentized alumina into *aliphatic hydrocarbons*, $C_{25}H_{52}$ to $C_{33}H_{68}$ (0.0009 per cent; i.r., m.s.), *α -amyrenone*, $C_{30}H_{48}O$ (0.09 per cent; m.p., $[\alpha]_D$, i.r., m.s., reduction to *α -amyrin*: m.p., mxd. m.p., $[\alpha]_D$, i.r., m.s.), *lupenone*, $C_{30}H_{48}O$ (0.015 per cent; m.p., $[\alpha]_D$, i.r., m.s., reduction to *lupeol*: m.p., mxd. m.p., $[\alpha]_D$, i.r., m.s.), *cycloartenone*, $C_{30}H_{48}O$ (0.004 per cent; m.p., $[\alpha]_D$, i.r., m.s., NMR).

Triterpene alcohols from petrol. ether:ether (9:1) fractions, separated as acetates by chromatography (argentized kieselgel) into *α -amyrin* (0.12 per cent; m.p., mxd. m.p., i.r.), *β -amyrin* (0.15 per cent; m.p., mxd. m.p., i.r.), *ψ -taraxasterol* (0.007 per cent, m.p., mxd. m.p., i.r.) and *lupeol* (0.22 per cent; m.p., mxd. m.p., i.r.). *β -Sitosterol*, $C_{29}H_{50}O$ (0.58 per cent; m.p., mxd. m.p., i.r., TLC) from petrol. ether:ether (4:1) fractions.

Fatty acids (0.08 per cent) from ether fractions, identified as *palmitic*, *stearic*, *oleic*, *arachidic*, *heptadecanoic*, and *nonadecanoic acids* by GLC of methyl esters.

Roots. (Extracted petrol. ether, chromatographed—kieselgel.)

Triterpene acetates (2.0 per cent of roots) from petrol. ether:ether (49:1) fractions, separated by preparative TLC (argentized kieselgel) into *α -amyrin acetate*, $C_{32}H_{52}O_2$ (m.p., mxd. m.p., i.r.), *β -amyrin acetate*, $C_{32}H_{52}O_2$ (m.p., mxd. m.p., i.r.), *ψ -taraxasterol acetate*, $C_{32}H_{52}O_2$ (m.p., mxd. m.p., i.r.), and *lupeol acetate*, $C_{32}H_{52}O_2$ (m.p., mxd. m.p., i.r.).

Triterpene ketones (0.15 per cent) from petrol. ether:ether (49:1) fractions, separated by chromatography (argentized alumina) into *α -amyrenone*, $C_{30}H_{48}O$ (m.p., mxd. m.p., i.r.), *lupenone*, $C_{30}H_{48}O$ (m.p., mxd. m.p., i.r.), and traces of *cycloartenone*, $C_{30}H_{48}O$ (m.p., i.r., TLC).

Triterpene alcohols (1.05 per cent) from petrol. ether:ether (9:1) fractions, separated as acetates by preparative TLC (argentized kieselgel) into *α -amyrin*, $C_{30}H_{50}O$ (m.p., mxd. m.p., i.r.), *β -amyrin*, $C_{30}H_{50}O$ (m.p., mxd. m.p., i.r.), *ψ -taraxasterol*, $C_{30}H_{50}O$ (m.p., mxd. m.p., i.r.) and *lupeol*, $C_{30}H_{50}O$ (m.p., mxd. m.p., i.r.). *β -Sitosterol*, $C_{29}H_{50}O$ (0.19 per cent; mxd. m.p., m.p., i.r., TLC) from petrol. ether:ether (4:1) fractions.

Fatty acids (0.16 per cent; i.r.) from ether fractions.

Stems. (Extracted petrol. ether, chromatographed—kieselgel.)

Triterpene acetates (0.17 per cent of stems) from petrol. ether:ether (49:1) fractions, separated by preparative TLC (argentized kieselgel) into *α -amyrin acetate*, $C_{32}H_{52}O_2$ (m.p., mxd. m.p., i.r.), *β -amyrin acetate*, $C_{32}H_{52}O_2$ (m.p., mxd. m.p., i.r.), *lupeol acetate*, $C_{32}H_{52}O_2$ (m.p., mxd. m.p., i.r.), and *ψ -taraxasterol acetate*, (i.r., TLC).

Triterpene ketones (0.011 per cent) from petrol. ether:ether (49:1) fractions, shown to be mixture of *α -amyrenone*, *lupenone*, and *cycloartenone* by TLC (argentized alumina).

Triterpene alcohols (0.09 per cent) from petrol. ether:ether (9:1) fractions, separated as acetates by preparative TLC (argentized kieselgel) into *α - and β -amyrin* (TLC., i.r.), *lupeol* $C_{30}H_{50}O$ (m.p., mxd. m.p., i.r.), and traces of *ψ -taraxasterol* (i.r., TLC). *β -Sitosterol*, $C_{29}H_{50}O$ (0.02 per cent; m.p., mxd. m.p., i.r.) from light petrol. ether:ether (4:1) fractions.

Fatty acids (0.01 per cent; i.r.) from ether fractions.

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