

but had an R_f lower than maslinic acid. The reference sample was obtained from *Centella asiatica*.⁸ (c) Sitosterol- β -D-glucoside (eluted by CHCl_3 -MeOH, 23:2), m.p. $>300^\circ$. Positive Molisch's test. Hydrolysis with acid yielded sitosterol and D-glucose. *From Alcohol extract*. D-Mannitol, m.p. 166° (derivative: acetate), ellagic acid, m.p. $>300^\circ$ (both obtained by direct fractional crystallization) and gallic acid, m.p. 256 – 258° (obtained by chromatography).

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⁸ P. BOITEAU, A. BUZAS, E. LEDERER and J. POLONSKY, *Bull. Soc. Chim. Biol.* **31**, 46 (1949).

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APOCYNACEAE

TRITERPENES OF *PARSONSIA STRAMINEA* LEAVES

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In a recent paper one of us reported¹ the isolation of two triterpenes from the leaves of *Parsonsia straminea*. We now wish to report on the identity of these compounds.

Compound *A*, a triterpene acid, m.p. 277 – 279° (M^+ , $m/e = 456$) showed in its IR spectrum strong absorptions at 3440 , 1690 and 1030 cm^{-1} , indicating the presence of hydroxyl and carboxyl groups. The base peak of the MS occurred at m/e 248 which further fragmented to an ion of m/e 203, thus suggesting that the compound was either an urs-12-en or olean-12-en-28-carboxylic acid.² An ion at m/e 207 was indicative of the hydroxyl group located at C_3 . The NMR spectrum in deutero-pyridine³ indicated that the compound was ursolic acid, and this was supported by the physical constants of the methyl ester and the acetyl derivatives.

The IR and MS of compound *B* suggested that it was a mixture of pentacyclic triterpene alcohols. Separation of the acetylated material on argentized silica gel afforded lupeol acetate and α -amyrin acetate.

EXPERIMENTAL

Separation of compound B. After acetylation with acetic anhydride and pyridine, the product (50 mg) was subjected to preparative TLC on 10% argentized silica gel, using light petrol.- Et_2O (9:1) as developing solvent. The bands were visualized by spraying with 2,7-dichlorofluoresceine and the compounds eluted with Et_2O . This afforded lupeol acetate (18 mg), m.p. 213 – 217° , and α -amyrin acetate (28 mg), m.p. 220 – 222° .

¹ W. J. GRIFFIN and J. E. PARKIN, *Planta Med.* **20**, 97 (1971).

² H. BUDZIKIEWICZ, C. DJERASSI and D. H. WILLIAMS, *Structure Elucidation of Natural Products by Mass Spectrometry*, Vol. 2, p. 122, Holden Day, New York (1964).

³ K. JEWERS and A. H. MANCHANDA, unpublished results.