Phytochemistry, 1977, Vol 16, p 1618. Pergamon Press. Printed in England.

COLOMBIAN PLANTS OF THE GENUS *GNAPHALIUM*

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(*Received* 31 *January* 1977)

Key Word Index—*Gnaphalium pellitum*; Compositae; 5-hydroxy-7,8-dimethoxyflavone; (+) pinitol.

The present work deals with a study of the chemistry of the flowers of *Gnaphalium pellitum*, a small abundant plant growing on the plain of Bogotá (2500–2700 m altitude). The plants were collected in November 1975 and May 1976. Classification was carried out by the Herbario Nacional, Universidad Nacional de Colombia. This plant is used to reduce swelling [1] and as an ornamental.

EXPERIMENTAL

The dried and ground plant material (2 kg) was exhaustively extracted with petrol (60–80°) the extract treated with EtOH (96%), and the soln was evapd under vacuum to dryness. The resulting dark brown residue was chromatographed on Si gel, using C_6H_6 as eluent. The first fraction gave 27 mg of a flavonoid (*A*) identified as 5-hydroxy-7.8-dimethoxyflavone on the basis of its spectral characteristics. The pure compound was obtained by fractional crystallization from Et_2O as yellow needles, Mp 173–175°. The flavonoid on TLC eluated with C_6H_6–Me_2O (9:1) gave a spot R_f 0.9 which appeared reddish under UV light. The same result was observed with NH_3/UV. With $CoCl_2$ a yellow visible spot appeared. The acetate derivative melted at 164–166°. Tests with $FeCl_3$; Mg/HCl [2, 3] and the Wilson reagent [4] were positive. UV: λ_{max} (MeOH) 275, 294 nm; $AlCl_3$ 275, 294 nm. IR ($CHCl_3$) ν_{max} 3330, 1740, 1650, 1450, 1270, 850, 720 cm^{-1}. MS [5]: 298 (M^+), 283, 280, 267, 166, 148, 113, 105. NMR (TMS, in $CDCl_3$) δ = 2.9 (*s*, 2-OMe); δ = 6.42 (*s*, 6H); δ = 6.65 (*s*, 3H); δ = 7.45–7.60 (*m*, 3H 3′, 4′, 5′); δ = 7.85–8.0 (*m*, 2H-2′, 6′); δ = 12.7 (*s*, OH). [2, 6]. The second fraction gave 160 mg of a compound *B*, with a sweet taste, identified as (+)pinitol as compared to an authentic sample [7]. The ethereal extract afforded 70 mg of a compound identified as Sitosterol.

Acknowledgements—We thank Dr. Antonio González (Spain) for supplying us the NMR and Mass spectra as well as for his valuable help for their interpretations also, we want to extend our appreciation to Drs. X. A. Domínguez, P. Joseph-Nattan, O. Fuentes and J. George. This work was supported by a Grant 008-1-07-75 from Colciencias.

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Phytochemistry, 1977, Vol 16, pp. 1618–1619 Pergamon Press Printed in England

NEW FLAVONOIDS FROM *EUPATORIUM INULAEFOLIUM**

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(*Revised received* 1 *April* 1977)

Key Word Index—*Eupatorium inulaefolium*; Compositae; 5,6,3′-trihydroxy-7,4′-dimethoxyflavone; pedalitin.

As a part of our chemical investigation of Argentine medicinal plants, we have examined *Eupatorium inulaefolium* var. *suaveolens* H.B.K. Hier., a perennial shrub of northeastern Argentina which is commonly known as 'sanalotodo' or 'yerba de Santa María' [1]. It is used externally for lavages of sores and pimples [2]. From this plant we have isolated and identified a new natural flavone (**1**), previously synthesized [3]; and

*Part 11 in the series 'Flavonoids from Argentine Medicinal Plants,' for Part 10 see Martino, V. S., Ferraro, G. E. and Coussio, J. D. (1976) *Phytochemistry* **15**, 1086.