signal to noise ratio): singlet at 1·07 ppm (angular methyl), triplet at 2·15 ppm with $J =$ 0·35 Hz ($CH_3 \cdot CO \cdot CH_2-$), doublet at 6·23 ppm with $J =$ 2·75 Hz, and doublet at 5·53 ppm with $J =$ 2·45 Hz (exomethylene group; *cis*-γ-lactone).[6]

Acknowledgements—The authors thank Dr. H. Minato (Shionogi Research Laboratory, Osaka, Japan) for the kind donation of an authentic sample of carabrone and for the copies of its PMR and IR spectra.

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STIGMASTEROL, FRIEDOOLEANAN-3β-OL AND BACCHARIS OXIDE FROM *BACCHARIS SALICIFOLIA*

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(*Received* 5 *March* 1972)

Key Word Index—*Baccharis salicifolia*; Compositae; stigmasterol; friedooleanan-3β-ol; baccharis oxide.

Plant. Baccharis salicifolia 'jarilla', Compositae. *Occurrence.* Slopes of Silla hill, N.L. *Uses.* Medicinal. *Previous work.* On sister species.[1-3]

Present work. The whole plant (voucher No. 7216) dried and powderized, (4·5 kg) was soxhlet extracted with ETOH. The extract was evaporated and the residue taken with $CHCl_3$. This solution was percolated through a silica gel column. On elution with solvents of increasing polarity the following compounds were obtained. *Stigmasterol*, $C_{29}H_{48}O$, (M^+ 412), m.p. 167–169° $[\alpha]_{589}^{25}$ −47·9°, *acetate* m.p. 140–142° $[\alpha]_{589}$ −52·0° m.m.p. superimposable IR, NMR, MS spectra co-TLC with authentic stigmasterol and its acetate. *Friedooleanan-3β-ol*, $C_{30}H_{52}O$, (M^+ 428) m.p. 277° $[\alpha]_{589}$ +16·6°; $[\alpha]_{578}$ +17·6°; $[\alpha]_{546}$ +19·4°; $[\alpha]_{436}$ +24·9°, *acetate* $C_{32}H_{54}O_2$ (M^+ 470), m.p. 292–294° $[\alpha]_{589}$ +33·1°; $[\alpha]_{578}$ +34°; $[\alpha]_{546}$ +40·4°; $[\alpha]_{436}$ +66·4°. *Friedooleanan-3-one* (friedelin) $C_{30}H_{50}O$ (M^+ 426), m.p. 256–258° $[\alpha]_{589}$ −16·3° $[\alpha]_{578}$ −18·0°; $[\alpha]_{546}$ −22·3°; $[\alpha]_{436}$ −60·7°. M.m.p. for the three compounds, superimposable IR, NMR and MS spectra co-TLC. *Baccharis oxide.* $C_{30}H_{50}O$ (M^+ 426), m.p. 147–148°; $[\alpha]_{589}$ +42·2°; $[\alpha]_{576}$ +46·3° $[\alpha]_{546}$ +50°; $[\alpha]_{436}$ +87·8°; $[\alpha]_{365}$ +135°; $[\alpha]_{316}$ +209°, m.m.p. and IR, NMR and MS spectra superimposable.

Acknowledgements—To Forge Foundation for financial support, to Dr. Teller Strasbourg University and Dr. Eloy Rodríguez, University of Texas for mass spectra and to Dr. N. A. Sorensen for a sample of baccharis oxide.

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