chromatograms, whereas Timberlake *et al.*[9] supposed they were produced by the combined action of acetic and hydrochloric acids (e.g. 1% conc. HCl in HOAc) during concentration of components eluted from the paper. Although these new bands have not been fully identified they behave as if they contain sugars acylated with one or more acetate groups.[9]

EXPERIMENTAL

Plant material. Ripe fruits were harvested in the region of Lago Argentino (Calafate, Santa Cruz Province, Argentina) during February.

Analysis of anthocyanins. Fresh fruits were macerated several times with 0·1% HCl–MeOH, at 0° in the darkness under N_2. The concentrated combined extracts were streaked on Whatman No. 3MM paper and irrigated with BAW allowing to run off the paper for nearly 40 hr. Purification was carried out with 15% HOAc. Preliminary tests for acylation were negative. H_2O_2 oxidation and hydrolysis products were identified by the methods earlier described.

Acknowledgement—Thanks are due to Professor Pedro Cattaneo for supplying the fruits.

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BIGNONIACEAE

HYDROQUINONE FROM THE LEAVES OF *JACARANDA MIMOSAEFOLIA*

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Key Word Index—*Jacaranda mimosaefolia*; Bignoniaceae; hydroquinone.

Plant. Jacaranda mimosaefolia D. Don. (Syn. *J. ovalifolia* R. Br.) (voucher specimen No. 6/72 deposited at JIPMER). *Source.* Annamalai University Campus, South India. *Uses.* Medicinal.[1] *Previous work.* Wood,[2] leaves (flavonoid).[3]

Present work. Fresh leaves extracted with hot 80% alcohol and the aq. concentrate fractionated into petrol (40–60°), Et_2O and EtOAc. *Petrol fraction.* A triterpenoid, yield, 0·01%, m.p. 257–259° (Me_2CO–MeOH). *Ether fraction.* Hydroquinone, yield, 0·1%, colourless prismatic needles, m.p. 171–172° (MeOH), λ_{max} (EtOH) 225, 294 nm, no shift with $AlCl_3$ or NaOAc. IR (KBr) bands at 755, 828, 1092, 1195, 1250, 1360, 1460, 1510, 3150 cm^{-1}. NMR: 4 aromatic protons (*s*, 7·2 ppm), the acetate 6 acetyl protons (*s*, 2·3 ppm). MS: parent peak at *m/e* 110 (M^+) and fragmentation at *m/e* 108 (M^+-2H) and 81

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(M^+-CHO); acetate, m.p. 123–124° (EtOH), methyl ether, m.p. 56–58° (MeOH); benzoate, m.p. 196–198° (EtOH); m.m.p., co-PC.

EtOAc *fraction.* Scutellarin as before.[3] *Comment.* This is the first record of the isolation, from the Bignoniaceae, of hydroquinone, the only C_6 phenol of systematic interest, which is common[4] in the Ericaceae, Rosaceae, Proteaceae and Compositae. The recent isolation of hydroquinone from *Majorana hortensis*,[5] Labiatae and the present report justifies the two families in the Tubiflorae.

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COMPOSITAE

CYNAROPICRIN: A SESQUITERPENE LACTONE FROM *CENTAUREA AMERICANA*

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Key Word Index—*Centaurea americana*; Compositae; sesquiterpene lactone; cynaropicrin; guaianolide.

A chloroform extract of *Centaurea americana* collected in Mexico yielded after chromatography a polar sesquiterpene lactone as major constituent. IR and NMR spectral properties of the lactone were very similar to those of cynaropicrin which was first isolated from *Cynara scolymus* L.[1] and whose spectral data were given by the Czechoslovakia group[2] and the structure has been recently revised to I[3] with the described stereochemistry at C_3 and C_8 which were deduced by the Horeau's method and the empirical NMR rule.[4]

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