cent silica gel sheets; acetone as developing solvent) to contain a further alkaloid having R_f 0·57 (R_f alstonisidine 0·49; R_f alstonisine 0·66). The new component was purified by preparative TLC (E. Merck silica gel plates) and crystallization from methanol to give macralstonine (IV),[7] m.p. 276–278°, of identical u.v., i.r., NMR, and mass spectra, and optical rotation to those of authentic material.

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ALKALOIDS OF *HAZUNTA MODESTA*

G. FERRARI and O. FERVIDI
Simes S.p.A., Lab. Ricerche Chimiche, Milano, Italy

and

M. FERRARI
Istituto di Chimica Organica dell'Università di Milano, Italy

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Plant. Hazunta modesta (Bak.). Pichon (Syn. *Tabernaemontana modesta* Bak.).

Source. Madagascar.

Previous work. From branches and stem bark of sister species *H. velutina* were isolated vobasine, tabernaemontanine, dregamine, voacarpine, hazuntine and hazuntinine.[1]

Examined part. Roots, extracted with EtOH until exhaustion. The alkaloids were dissolved from dry extract in 5% citric acid, the bases set free with aqueous ammonia, extr. with $CHCl_3$ and chromatographed on a neutral Al_2O_3 column. Ibogamine, tabernaemontanine (eluted with C_6H_6) and dregamine [eluted with C_6H_6–ether (7:3)] were identified. Total alkaloids constituted 2·5 per cent of weight of the dry roots.

Ibogamine. $C_{19}H_{24}N_2$—Found: m.p. 155–7° (MeOH); $[\alpha]_D - 36°$ ($C = 1$, $CHCl_3$). Required; m.p. 162–3°;[2] $[\alpha]_D - 36·4°$ ($CHCl_3$);[2] i.r.,[3] u.v.[4] and m.s.[5] were in full accordance with those reported for authentic ibogamine. NMR spectrum (in $CDCl_3$) provided further confirmation of proposed identification. It showed peaks between τ2·5 and 3 (5 indole

[*] M.ps are uncorrected.

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protons), between τ6·5 and 7·3 (8 protons: $>$CH—N and Ar—CH—), between τ8 and 8·7 (8 methylenic and methynic protons); and at τ9·1 (3 methylic protons).

Tabernaemontanine. $C_{21}H_{26}N_2O_3$. Found: m.p. 206–8° (MeOH); $[\alpha]_D$ − 52° (C = 1, $CHCl_3$). Required: m.p. 215–6°;[6] $[\alpha]_D$ − 57·5 (C = 1, $CHCl_3$)[7] i.r.,[8] m.s.[8] and NMR[9] spectra were in full accordance with those reported for authentic tabernaemontanine.

Dregamine. $C_{21}H_{26}N_2O_3$. Found: m.p. 106–8° (MeOH); $[\alpha]_D$ − 90° (C = 1, $CHCl_3$); HCl-ide, m.p. 238–40° (EtOH); CH_3J-ide, m.p. 211–14° (EtOH) (Required: m.p. 106–9°;[9] $[\alpha]_D$ − 93° ($CHCl_3$);[9] HCl-ide,[9] m.p. 249–50°; CH_3J-ide, m.p. 215–7°).[6] i.r. and u.v. spectra were in full accordance with those reported for authentic dregamine.[4,9] M.s. and NMR spectra provided further identity confirmation. M.s. showed ion signals at *m/e* 322, 196, 182, 122, which can be interpreted in terms of cleavages as already reported for tabernaemontanine.[8] NMR (in $CDCl_3$) showed peaks at τ0·5 ($>$N—H), between τ2·2 and 3·4 (aromatic protons), τ6 ($\text{—}\overset{|}{\underset{\substack{|\\ \text{H}}}{\text{C}}}\text{—N}$), whilst 13 protons appeared between τ6·7 and 7·7 (CH_3O—, shifted from its normal τ6·3 value by the chromatic field which it is pointing toward; CH_3N—; —CH_2—N—; —CH_2CO—; $>$CH—COOR; Ar—CH_2—) and 7 protons between τ8·7 and 9 (CH_3—CH_2—; $>$CH—; $>$CH—), in accordance with the proposed structure.

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