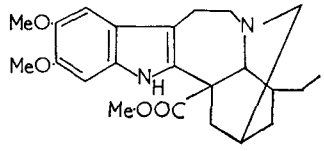
The Isolation and Identification of the Major Alkaloid Present in *Tabernaemontana pachysiphon* Stapf. var *cumminsi* (Stapf.) H. Huber

SIR,—We have isolated and identified an alkaloid from *T. pachysiphon* var *cumminsi*. The plant was collected from the Mpraiso district, Ghana, the leaves dried below 50° and the alkaloids extracted by percolation with ethanol. A soft extract was prepared by distillation under reduced pressure. It was dissolved in glacial acetic acid and poured into a large volume of water with vigorous stirring. The aqueous acidic layer was separated from the tars and the total bases precipitated with ammonia in the presence of ice. The major alkaloid was separated from the mixed bases by chromatography on alumina using benzene (or chloroform), purified by preparing the tartrate salt which was recrystallised from methanol m.p. 220°. The free base was isolated and recrystallised from methanol m.p. 144–145°. Analysis gave an empirical formula $C_{23}H_{30}N_2O_4$. Ultra-violet spectrum in absolute ethanol gave λ_{max} 223 mμ (ϵ = 15,600) and λ_{max} 302 mμ (ϵ = 6,550). The spectrum was unchanged in acidic and strongly basic conditions. The major infra-red bands were at 1725 cm.$^{-1}$ and (ester carbonyl) and at 3,350 cm.$^{-1}$ (N–H-stretching) in Nujol mull.

A mass spectrometric examination of the alkaloid was carried out and gave the data consistent with that reported by Biemann (1962) on a series of iboga alkaloids and was suggestive of the iboga alkaloid conopharyngine (I) which



(I)

has been isolated by Renner, Prins and Stoll (1959) from *Conopharyngia durissima* (Stapf.). The m.p. ultra-violet and infra-red spectra are in good agreement with those of Renner, Prins and Stoll (1959). A mixed m.p. with an authentic sample of conopharyngine showed no depression. Smaller quantities of minor alkaloids have been obtained by chromatography on alumina and these will be reported on in due course.

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