

Alkaloids of *Lamprolobium fruticosum* Benth. (Leguminosae)

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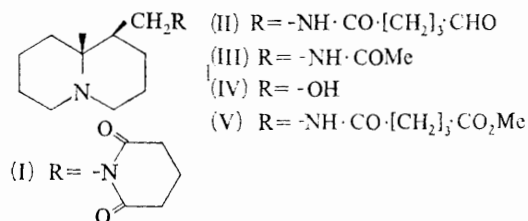
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A new alkaloid, lamprolobine, isolated as a colourless oil, $[\alpha]_D + 29^\circ$ in ethanol, picrate m.p. 153—154°, from the leaves of *Lamprolobium fruticosum* Benth. (family Leguminosae) has been shown to be (I). Lamprolobine is related to lusitanine, an alkaloid of *Genista lusitanica*¹ and its unusual glutarimido-structure indicates a possible derivation from three equivalents of lysine by way of an intermediate (II) similar to precursors proposed for the quinolizidine alkaloids, matrine and sparteine.^{2,3}

Acid hydrolysis of lamprolobine affords glutaric acid and (+)-1-aminomethylquinolizidine, the stereochemistry of which was determined by establishing the identity of the *N*-acetyl derivative (III) (m.p. 144—145°; $[\alpha]_D + 46^\circ$ in ethanol) with a specimen of (III) prepared from epilupinine (IV) by a previously described method.⁴ The mass spectrum of (I) showed a molecular ion at m/e 264, and other spectroscopic data (i.r.; n.m.r.) were in accord with the assigned structure.

The ester (V), also isolated from methanolic extracts of *L. fruticosum* leaves, is considered to be an artefact produced from (I), as (V) was not obtained when the leaves were extracted with solvents other than methanol. Ester (V) forms slowly when (I) is heated in refluxing methanol.

The known alkaloid cytisine was also isolated from *L. fruticosum* leaves.



(Received, January 16th, 1968; Com. 062.)

¹ E. Wicky and E. Steinegger, *Pharm. Acta Helv.*, 1965, **40**, 658.

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³ H. R. Schütte, H. Aslanow, and C. Schäfer, *Arch. Pharm.*, 1962, **295**, 34.

⁴ S. Okuda, H. Kataoka, and K. Tsuda, *Chem. and Pharm. Bull (Japan)*, 1965, **13**, 491.