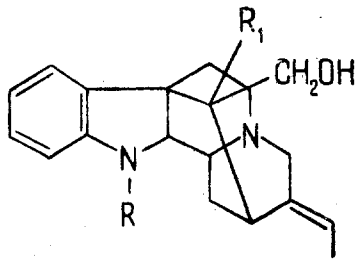
comparison of the mass spectra of vincaridine (R = H, R_1 = $COOCH_3$) and pseudoakuammigol (R = CH_3; R_1 = CH_2OH) [2] show that these substances are related; the difference amounts to 14 m/e in the fragments of the indole moiety of the molecule (R = a CH_3 group in pseudoakuammigol) and 31 m/e in the ions of the alicyclic moiety (R_1 = $COOCH_3$ instead of R_1 = CH_2OH).

On the basis of the above results, it may be assumed that the structure of vincaridine is similar to that of pseudoakuammigol.



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AN INVESTIGATION OF THE ALKALOIDS OF HAPLOHYLLUM RAMOSISSIMUM

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The plant H. ramosissimum Vved (family Rutaceae) was collected by one of the authors in the flowering stage in the Kara-Kalpak ASSR (Ust-Urt, Shurukh meteorological station). Chloroform extraction of the leaves of this plant gave 0.41% and that of the epigeal part gave 0.17% of a mixture of bases. On a paper chromatogram the mixture of alkaloids obtained gave two spots with R_f 0.91 and 0.11 [butanol–HCl–H_2O (4:1:3) system].

Separating the mixture of alkaloids by means of ion exchangers and on alumina gave two alkaloids. The first, skimmianine, was shown to be identical with an authentic sample from H. foliosum [1], while the second was a substance with mp 132–133°C; its picrate had mp 162–163°C (from alcohol), its hydrochloride 169–170°C (from alcohol), and the iso compound mp 187–188°C (from water). The constants and properties of the second alkaloid and dictamnine, first isolated from Dictamnus albus Linn., agreed [2]. Of the twelve species of the genus Haplophyllum studied dictamnine has so far been detected only in H. ramosissimum.

In addition to the alkaloids, the mixture of bases yielded a nitrogen-free crystalline substance with mp 145–146°C. The roots of H. ramisissimum from the same collection were found to contain 0.33% of total alkaloids. Separation of the mixture of alkaloids on alumina gave 0.06% of skimmianine and 0.03% of dictamnine (of the weight of the dry roots). The neutral substance with mp 145–146°C was not found in the roots.

This plant apparently does not contain any other alkaloids.

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