

The second condensation product was not detected, although, a priori, one would have expected the isolation of this product.

The results of the extractions that we have performed without the use of dichloroethane permit the statement that convolvidine is a product of the vital activity of the plant organism itself.

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ALKALOIDS OF Aconitum zeravschanicum

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We have previously reported the isolation from epigeal parts of Aconitum zeravschanicum Steinb. collected at two growth sites of the alkaloids heteratisine ["heteratizine"], reticuline, and a number of unidentified bases [1]. In the present communication we give results on the identification of bases (II), (III), and (VI).

The composition of (II) [1] and its spectral characteristics corresponded to those of the alkaloid nominine [2]. A direct comparison of (II) with an authentic sample of nominine kindly sent by Prof. S. Sakai (Japan) showed their identity.

From the results of a comparison of the spectral characteristics and some chemical properties with those given in the literature, bases (III) and (IV), having the same composition $C_{22}H_{23}NO_2$, were identified as the alkaloids isoatisine and atisine [3], respectively. Thus, on being boiled with methanol, (VI) was readily converted into (III) [4]. On reduction with sodium tetrahydroborate, both (III) and (IV) gave a dihydroderivative [5] the oxidation of which with potassium ferricyanide [3] led back to (III) and (VI). Furthermore, on being heated with a 10% solution of hydrochloric acid (III) isomerized into a keto derivative [7] the IR spectrum of which had at 1713 cm^{-1} the strong absorption band of a carbonyl group in a six-membered ring.

The identity of (III) and (VI) as the alkaloids isoatisine and atisine, respectively, was also confirmed by the results of a preliminary stage of x-ray structural analysis, according to which the parameters of the elementary cell of a single crystal of (III) coincided with those of isoatisine [3] to within an accuracy of 0.01 Å.

Atisine has also been isolated in the form of the chloride from the epigeal part of A. zeravschanicum [7].

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