

7. N. V. Bondarenko, in: A Phytochemical Study of the Flora of the Belorussian SSR and Biopharmaceutical Studies of Drugs [in Russian], Leningrad (1975), p. 84.

ALKALOIDS OF *Rhinopetalum korelini*

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The plant *Rhinopetalum korelini* Fisch. (family Liliaceae) has not been studied chemically [1]. We have investigated the epigeal part collected on May 10, 1974, in the village of Babadurmez, Turkmen SSR, in the period of mass fruit bearing. A mixture of bases was extracted from the plant with chloroform. From the extract, after appropriate working up, were obtained the combined ether-soluble (0.07%) and chloroform-soluble (0.08%) alkaloids, amounting to 0.15% on the weight of the dry plant.

The addition of methanol to the ether fraction yielded a mixture of two substances (0.11 g) which was passed through a column of silica gel (KSK, 150-250  $\mu$ ). Elution was carried out with chloroform-methanol (10:2), and 15 fractions (10 ml each) were collected. The treatment of fractions 6-15 with methanol gave the alkaloid (I) with mp 255-257°C (methanol). The combined chloroform alkaloids (1.14 g) were passed through a column of silica gel, and elution with chloroform-methanol (10:2 and 10:4) gave 43 fractions. After rechromatography on alumina (activity grade II), fractions 1-5 yielded an alkaloid (II) with mp 209-212°C, which was identified as solanidine (mixed melting point,  $R_f$ ) [2]. Fractions 14-19 (0.26 g) yielded the alkaloid (I). The treatment of fractions 20-30 with methanol gave the alkaloid (III) with mp 301-303°C (methanol). The chloroform-methanol (10:4) eluate deposited crystals with mp 272-274°C (methanol),  $[\alpha]_D^{20} + 17.7^\circ$  (c 1.92; pyridine) of an alkaloid (IV).

A study of the products of hydrolysis of (I) and (III), and also a comparison of their IR spectra and melting points with those of rhinoline and rhinoline showed that (I) and (III) were identical with rhinoline and rhinoline, respectively [3, 4].

Thus, solanidine, rhinoline, and rhinoline have been isolated for the first time from *Rhinopetalum korelini*.

LITERATURE CITED

1. Flora of Turkmenia [in Russian], Leningrad, Vol. 1, No. 2 (1932), p. 298.
2. K. Samikov, R. Shakirov, and S. Yu. Yunusov, Khim. Prir. Soedin., 537 (1974).
3. K. Samikov, R. Shakirov, and S. Yu. Yunusov, Khim. Prir. Soedin., 815 (1978).
4. K. Samikov, R. Shakirov, and S. Yu. Yunusov, Khim. Prir. Soedin., 350 (1979).