L. I. Topuriya

We have obtained the total alkaloids from the epigeal parts of the plant *Gentiana caucasica* M. B. (*Caucasican gentian*) var. *cardescens*, family Gentianaceae, growing in the Mestia region of the Georgian SSR. By preparative chromatography in a thin layer of silica gel in the benzene—chloroform—ethanol (7:3:1) solvent system we isolated a base with Rf 0.77 in the form of colorless crystals (from ethanol) with mp 81-82°C, optically inactive. UV spectrum: $\lambda_{\rm max}^{\rm CH_3OH}$ 220 nm (log ϵ 4.30) and 250 nm (log ϵ 3.89). The IR spectrum showed absorption bands at (cm⁻¹) 1720 (ester carbonyl), 1625 (double bond in a pyridine ring), 750, 779, 810, and 862 (trisubstituted pyridine ring). Thus, the compound is identical with the alkaloid gentianine [1, 2].

A mixture with an authentic sample of gentianine showed no depression of the melting point, and on TLC in various solvent systems they gave a single spot.

In the epigeal part of *Gentiana schistocalyx* C. Koch collected in the period of full flowering in the Mestia region of the Georgian SSR, in addition to flavonoids, xanthones, and alkaloids, we have detected triterpene compounds for the first time. The raw material was extracted with 80% ethanol [3], and the ethanol was distilled off.

The aqueous liquid was freed from lipids, flavonoid and xanthone glycoside, and alkaloids, and then the triterpene compounds were extracted with n-butanol. The total material isolated amounted to 2% of the dry raw material and gave the color reactions characteristic for triterpenes. After acid hydrolysis of the total material, from a chloroform extract by preparative chromatography in a thin layer of KSK silica gel in the chloroform methanol (20:1) solvent system we isolated white acicular crystals with mp 305-309°C, $[\alpha]_D^{2\circ}$ +80° (c 1.0; chloroform) which were identified as cleanolic acid [4].

This is the first time that oleanolic acid has been detected in plants of the genus Gentiana.

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