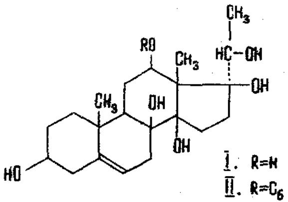
mp 250° C and $[\alpha]_D^{20}$ +71.5 ± 2° (c 1.15; methanol). From its properties and its IR and mass spectra, the desacylgenin is similar to sarcostin (I) [4]. A direct comparison of it: with an authentic sample of the genin kindly provided by H. Mutsuhashi (Hokkaido, Japan), confirmed their identity.



I. R=H

II. $R=C_6H_5CH=CHCO$

Consequently, the genin, sarcostin cinnamate, has the composition $C_{30}H_{40}O_7$ and must be identical with penupogenin [5] the structure of which, taking into account the corrections due to Jaeggi et al. [4], must correspond to formula **II.**

The most polar compound which we have called sibicoside gives a positive xanthydrol reaction, i.e., it is a glycoside. The acid hydrolysis of sibicoside yielded D-digitoxose, a disaccharide of undetermined structure, and desacylsibirigenin.

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20 March 1969

Institute of the Chemistry of Plant Substances AS UzSSR

UDC 547.944.1

THE STRUCTURE OF ERVINCEINE

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Khimiya Prirodnykh Soedinenii, Vol. 5, No. 4, pp. 330–331, 1969

By separating the petroleum ether fraction of the total alkaloids from the epigeal part of Vinca erecta Rgl. et Schmalh. [1] we have isolated a base with mp 99–100° C (methanol), $[\alpha]_D^{12}$ −448° (c 0.9; chloroform), $C_{22}H_{28}N_2O_3$, M^+ 368 (mass spectroscopy), R_f 0.66 in TLC on silica gel [petroleum ether-ether (2 : 1)], hydriodide mp 214–215° C **(decomp., methanol).**

IR spectrum: NH (3335 cm^{-1}), ester carbonyl group conjugated with a double bond (1672 cm^{-1}) and a 1, 2, 4-trisubstituted benzene ring (805, 868 cm^{-1}).

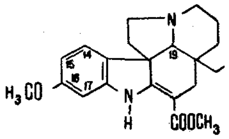
UV spectrum: λ_{max} (ethanol) 248, 328 mμ (log ε 4.12, 4.26), which is characteristic for α-methyleneindoline alkaloids. The NMR spectrum of ervinceine with signals at δ 8.88 (NH, singlet), 6.14–6.91 (aromatic protons, 3H), 3.69 (singlet, $COOCH_3$), 3.66 (singlet, OCH_3), and 0.53 (triplet, $-\overset{|}{\underset{|}{C}}-C_2H_5$).

The reduction of ervinceine with zinc in methanolic sulfuric acid gave dihydroervinceine, $C_{22}H_{30}N_2O_3$, mp 118–119° C (methanol), $[\alpha]_D^{20}$ +3.3 (c 0.9; chloroform). Its IR spectrum; λ_{max} (ethanol) 249, 305 mμ (log ε 3.78, 3.73) is characteristic of indoline bases. Its mass spectrum has the molecular peak M^+ 370 (16%) and also peaks of ions with m/e 339 $(M-OCH_3)^+$ 10%, 284 $(M-86)^+$ 26% and 124 (100%).

The mass spectrum of ervinceine M + 368 (48%), 125 (16%), 124 (100%) is similar to that of 16-methoxyvincadifformine M + 368 (22%), 125 (10%), 124 (100%) [1], but differs in the intensity of the peaks. Since, according to the IR spectrum, ervinceine is a 1, 2, 4-trisubstituted benzene derivative, the methoxy group may be present in position

15 or 16. A comparison of the UV spectrum of dihydroervinceine with those of 7-methoxytetrahydrocarbazole and of dihvdroervincinine [3, 4] showed that the methoxy group in ervinceine is possibly in position 16.

On the basis of what has been stated, the following structure, isomeric with 16-methoxyvincadifformine, is proposed as the most probable for ervinceine



The isolation of a new alkaloid herbavinine from Vinca herbacea has been reported. A comaprison of the properties of herbavinine and majdine [6, 7] and of their IR and NMR spectra has shown that these alkaloids are identical.

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26 February 1969

Institute of the Chemistry of Plant Substances AS UzSSR

UDC 547.944/945

ALKALOIDS OF GALANTHUS CAUCASICUS

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Khimiya Prirodnykh Soedinenii, Vol. 5, No. 4, p. 331, 1969

From 1700 g of the plant G. caucasicus (Bak) Grossh., collected in the flowering period near Tblisi, by dichloroethane extraction we have isolated 7.3 g of total alkaloids (1.01% of the weight of the dry plant). Their separation yielded 4.5 g of lycorine, 6.3 g of galanthine, 3.6 g of tazettine, 0.4 g of galanthamine [1, 2], and 0.5 g of a base $C_{17}H_{19}O_4N$ with mp 214° C (water), $[\alpha]_D^{20}$ +94.3° (c 0.71; methanol); mol. wt. 301 (mass spectroscopy); UV spectrum: λ_{max} 228, 269, 210 mμ (log ε 4.32, 3.91, 2.72). The IR spectrum of the base has absorption bands at 1700 (>CO) and 3400–3200 cm^{-1} (OH).

The NMR spectrum of the compound has signals of the protons of an aromatic ring at 2.54, 2.99 ppm and of an olefinic proton at 4.54 ppm. The signal of an OCH_3 group is found at 6.16 ppm and that of a $N-CH_3$ group at 8.02 ppm.

The mass spectrum of the base has peaks of the ions M^+ 301, 109 (100%), 108, 96, 94, and 82 m/e. This is characteristic for alkaloids of the lycorenine type [3, 4].

These results permitted us to consider that the alkaloid isolated is not demethylhomolycorine [5].

The NMR spectrum was taken on a JNM-4H-100/100 MHz instrument in deuterochloroform with HMDS as internal standard (τ scale) and the mass spectrum on a MKh-1303 instrument with a glass inlet system at an energy of the ionizing electrons of 40 eV and a temperature of 125° C.

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