ALKALOIDS OF Veratrum lobelianum. V

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UDC 544.944/945

From a fraction of the alkaloids of Veratrum lobelianum Bernh., obtained by the treatment of an acetic acid solution of the combined alkaloids [1] with diethyl ether, by chromatography on a column of cellulose [2] in the systems 1) chloroform and 2) chloroform–benzene (1 : 1) saturated with formamide, we have isolated five alkaloids with the following R_f values: (I) – 0.22 (system 1); (II) – 0.38; (III) – 0.40; (IV) – 0.7; (V) – 0.73 (system 2). Chromatographic analysis was performed on paper of type "M" ["slow"] of the Volodarskii Leningrad paper mill impregnated with a solution of formamide in ethanol (1 : 2).

Alkaloid (I), $C_{27}H_{43}NO_3$, $[\alpha]_D^{23}$ –85° (c 0.43; chloroform). Amorphous. The UV spectrum recorded by the method described previously [3] two hours after dissolution in sulfuric acid had λ_{max} 264, 389, 472, 523 nm.

Alkaloid (II), $C_{27}H_{45}O_2N$, mp 168°C (from ethanol), $[\alpha]_D^{22}$ –87° (c 0.48; ethanol). UV spectrum: λ_{max} 305, 408, 460, 496 nm.

Alkaloid (III), $C_{27}H_{43}ON$, mp 124-125°C (from hexane), $[\alpha]_D^{23}$ –80° (c 0.31; chloroform). UV spectrum: λ_{max} 240, 312, 355, 427, 505 nm.

Alkaloid (IV), $C_{27}H_{43}ON$, mp 173-175°C (from a mixture of acetone and ether), $[\alpha]_D^{24}$ –91° (c 0.35; chloroform). UV spectrum: λ_{max} 335, 417 nm.

Alkaloid (V), $C_{27}H_{41}O_2N$, $[\alpha]_D^{22}$ –94° (c 0.32; chloroform). Amorphous. UV spectrum: λ_{max} 289, 416, 502 nm.

The nature of the UV spectra and the R_f values of the compounds isolated agree with those for the known alkaloids: (I) – veramarine; (II) – veralkamine; (III) – veralinine; (IV) – verazine; (V) – veramine kindly given to us by J. Tomko (Czechoslovakia). The analytical results given above also agree with literature information for these alkaloids [4-6].

LITERATURE CITED

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Vitebsk Technological Institute of Light Industry. Translated from Khimiya Prirodnykh Soedinenii, No. 1, p. 132, January-February, 1973. Original article submitted July 10, 1972.