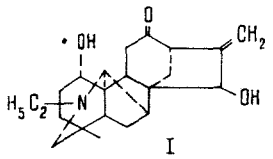
SONGORINE N-OXIDE FROM *Aconitum monticola*

É. F. Ametova, M. S. Yunusov, and S. Yu. Yunusov

UDC 547.944/945

From the epigeal part of *Aconitum monticola* collected in the Dzhungarian Ala-Tau on the R. Kuyandysai we have isolated songorine, acomonine, and norsongorine, and also a base with mp 253-255°C (methanol), readily soluble in water and sparingly soluble in ethanol, acetone, chloroform, benzene, and ether. Its IR spectrum contains absorption bands at 1710 cm^{-1} (CO) and 1658 cm^{-1} (double bond). In the UV spectrum the maximum absorption is at 292 nm (log ε 2.44), which is characteristic for β,γ-unsaturated ketones. The NMR spectrum has a three-proton singlet at 0.84 ppm (—C—CH_3) and a three-proton triplet at 1.36 ppm (N—C_2H_5). The mass spectrum of the base shows the peaks of ions with m/e 373 (M^+) and 357 (M − 16), 356 (M − 17), and 355 (M − 18), which are characteristic for N-oxides.

The facts presented make it possible to assume that the base is songorine N-oxide. To confirm this, the base was reduced with Zn in 10% HCl at room temperature, which gave songorine (I). Consequently, the alkaloid isolated is the previously undescribed songorine N-oxide.



I

Institute of the Chemistry of Plant Substances, Academy of Sciences of the Uzbek SSR, Tashkent. Translated from Khimiya Prirodnykh Soedinenii, No. 6, p. 867, November-December, 1977. Original article submitted July 4, 1977.

0009-3130/77/1306-0735$07.50