# O-METHYLKREYSIGINE FROM *Colchicum szovitsii*

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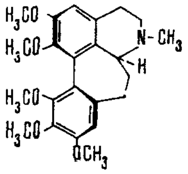
In a preceding paper [1] we gave an account of the alkaloids of *Colchicum szovitsii* Fisch., collected in the fruit-bearing period in the town of Aragats. On investigating the plant in the flowering period, we isolated from it 0.17% of total alkaloids of which 0.14% consisted of weak bases and 0.03% of strong bases. In the weak bases, by chromatographic methods, we detected colchicine ($R_f$ 0.86), 2-demethylcolchicine ($R_f$ 0.52), 3-demethyl-β-lumicolchicine ($R_f$ 0.70), and unidentified compounds with $R_f$ 0.44 and 0.67 [TLC on alumina; chloroform–methanol (24:1) system]. The mixture of strong bases contained unidentified substances with $R_f$ 0.01-0.02, 0.46, 0.56, and 0.86 [TLC on silica gel; chloroform–methanol–benzene (10:4:1) system]. By preparative thin-layer chromatography of the mixture of nonphenolic strong bases we obtained individual compounds with $R_f$ 0.46 and 0.86. The structure of the second of these has been determined.

The base with $R_f$ 0.86 has the composition $C_{23}H_{29}O_5N$ and is a viscous oily substance with $[\alpha]_D^{21}$ + 81° (c 0.43; chloroform). Methiodide with mp 150-153° (from ether–acetone). The UV spectrum has absorption maxima at 258 and 290 nm (log ε 4.00, 3.78), which enabled it to be assigned to the group of homoaporphine alkaloids [2, 3].

The PMR spectrum of the base shows the signals of two aromatic protons isolated from one another (one-proton singlets at 6.45 and 6.58 ppm), five methoxy groups (three-proton singlets at 3.48, 3.56, and 3.81 ppm and a six-proton singlet at 3.83 ppm), and a N-methyl group (three-proton singlet at 2.35 ppm). The mass spectrum of the base showed characteristic peaks of ions with m/e 399 ($M^+$), 384 ($M^+$–15), and 368 ($M^+$–31).

These facts permit the conclusion that the base with $R_f$ 0.86 corresponds to the structure of 2,3,4,5,6-pentamethoxyhomoaporphine, i.e. O-methylkreysigine with the absolute configuration R [4, 5].



(–)-O-Methylkreysigine has been obtained previously [5-7] from a number of homoaporphine bases by methylation with diazomethane. This is the first time that O-methylkreysigine has been obtained from plant material.

## LITERATURE CITED

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