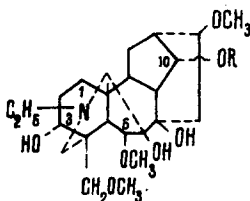


## STRUCTURE OF ILIENSINE

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From *Delphinium bitematum* collected in the flowering stage in the Trans-Ili Ala-Tau along the R. Turgen' we have isolated new base - iliensine (I),  $C_{24}H_{39}NO_7$ , with mp 201-203°C (ethanol-chloroform). The base contains four hydroxy and three methoxy groups and an aminoethyl group; two of the hydroxy groups are secondary and two are tertiary. According to its IR and mass spectra, iliensine is similar to acomonine (II) but differs from the latter by a methylene group. Methylation of the base with methyl iodide in the presence of sodium hydride gave O,O-dimethyliliensine, identical with O-methylacomonine. Like acomonine, iliensine (I) forms anhydro-(I) (III),  $C_{24}H_{37}NO_6$ , and on oxidation by Marion's method [1] it forms N-noranhydroxy-(I) (IV),  $C_{22}H_{33}NO_7$ , which shows the presence of an  $\alpha$ -hydroxy group at C<sub>3</sub>. The NMR spectra of N,O-diacetyl-(IV) and of O-acetyl-(III) each have a one-proton triplet at 4.77 and 4.79 ppm with  $J = 4.5$  Hz, which shows the presence of an  $\alpha$ -hydroxy group at C<sub>10</sub> [2].



I R=H  
II R=CH<sub>3</sub>

In view of the identity of the products of methylation of acomonine and iliensine, and also the fact that in iliensine two hydroxy groups are secondary and two tertiary, iliensine may be ascribed the structure (I).

### LITERATURE CITED

1. O. Achmatowicz, Y. Tsuda, L. Marion, *Can. J. Chem.*, **43**, 2336 (1965).
2. S. W. Pelletier, L. H. Keith, and P. C. Parthasarathy, *J. Amer. Chem. Soc.*, **89**, 4146 (1967).

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