

## BRIEF COMMUNICATIONS

### ARTABIN - A NEW LACTONE FROM *Artemisia absinthium*

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From the epigeal part of *Artemisia absinthium* L. (family Compositae) collected in August 1969 in the Taskent region, we have isolated a new lactone with the composition  $C_{15}H_{22}O_3$ , mp 162-164°C (from benzene-petroleum ether),  $[\alpha]_D^{20} +220^\circ$ , mol. wt. 250 (mass spectrometry). We have called this lactone artabin.

On chromatography in a fixed layer of alumina in the ethyl acetate-n-hexane (7:3) system, artabin has  $R_f$  0.29, and in the benzene-methanol (9:1) system  $R_f$  0.47 (revealing agent - vanillin in conc.  $H_2SO_4$ ). Artabin dissolves on heating in dilute solutions of alkalis and precipitates in the original form on acidification.

Its IR spectrum has absorption bands in the following regions ( $cm^{-1}$ ): 3490 (OH group), 1760 ( $\gamma$ -lactone), and 1670 (double bond). There are no maxima characteristic for conjugated systems in the UV spectrum. In the NMR spectrum there are the signals of three methyl groups: one doublet at 1.20 ppm ( $>CH-CH_3$  in a lactone ring) and two singlets at 1.68 and 1.40 ppm (on double bonds). The lactone proton is found at 4.22 ppm.

The catalytic hydrogenation of artabin in the presence of platinum oxide gave tetrahydroartabin  $C_{15}H_{26}O_3$ , mp 152-154°C (from benzene) in the spectrum of which the absorption band of the double bond had disappeared.

When artabin was acetylated with acetic anhydride in pyridine, acetylartabin,  $C_{17}H_{24}O_4$ , mp 172-173°C (ethanol), was obtained. Its IR spectrum shows absorption bands in the following regions ( $cm^{-1}$ ): 1765 ( $\gamma$ -lactone), 1728 (ester), and 1665 (double bond).

The results obtained show that artabin is a sesquiterpene lactone of the germacrane type [1].

#### LITERATURE CITED

1. M. Suchy, Z. Samek, V. Herout, R. B. Bates, G. Snatzke, and F. Sorm, Coll., 32, 3917 (1967).

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