

The flower buds of *Artemisia cina* Berg. ex Poljak (levant wormwood) collected in the Chimkent oblast were extracted successively with gasoline, chloroform, and methanol. Treatment of the concentrated gasoline extract with acetone precipitated crystals of  $\alpha$ -santonin [1]. The chloroform extracts were treated with 5% sodium carbonate solution. The sodium carbonate extract was acidified with 15% hydrochloric acid and re-extracted with ether. On standing, the ethereal solution deposited crystals in the form of large prisms with the composition  $C_{15}H_{18}O_4$  (I), mp 202-203°C (from ethanol). The same substance was isolated by extracting the plant with water followed by chromatography on a column of alumina (neutral, activity grade IV). The chromatography of (I) on a nonfixed thin layer of alumina in the benzene-acetone (9:1) system gave a spot with  $R_f$  0.07 revealed with a 1% solution of  $KMnO_4$  in 1% sulfuric acid. IR spectrum,  $cm^{-1}$ : 3500 (hydroxy group), 1770 (carbonyl of a  $\gamma$ -lactone), 1660, 1640, 1620 (double bond). UV spectrum:  $\lambda_{max}$  242 nm ( $\log \epsilon$  6.0).

The acetylation of (I) with acetic anhydride in pyridine gave an acetyl derivative with mp 198-199°C (from ethanol). The IR spectrum of the acetate lacked a band at  $3500\text{ cm}^{-1}$  and exhibited an absorption band of the carbonyl group of an ester at  $1725\text{ cm}^{-1}$ . The action of p-toluenesulfonyl chloride on the lactone (I) formed a p-toluenesulfonate with mp 191-192°C.

The properties of the lactone (I) and its derivatives correspond to those of artemisin isolated previously from *Artemisia maritima* [2].

## LITERATURE CITED

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2. M. Sumi, Proc. Japan Acad., 32, 684-687 (1956); Ref. Zh. Khim., 1957, 77,176.

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