ESTERS FROM THE ROOTS OF Ferula lapidosa

G. V. Sagitdinova, A. I. Saidkhodzhaev,

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G. K. Nikonov, and U. Rakhmankulov

We have previously isolated chimgin from the roots of Ferula lapidosa Eug. Korov. [1]. From the roots of Ferula lapidosa collected in the valley of Susamyr, KirgSSR, by extraction with ethanol followed by chromatography on a column of KSK silica gel of the total material obtained we have isolated by elution with chloroform, in addition to chimgin [1, 2], another two crystalline compounds: with the composition $C_{22}H_{30}O_4$, mp 190-191°C (from ether), $[\alpha]_{\tilde{D}}^{23}$ -90.6° (c 1.0; chloroform) (I) and with the composition $C_{20}H_{30}O_4$, mp 140-141°C (from ether), $[\alpha]_{\tilde{D}}^{20}$ -89.5° (c 1.0; chloroform) (II).

Both these substances have a weakly acid nature, are soluble in aqueous solutions of alkalis, and from their spectral characteristics and chemical properties are esters.

Substance (I) was identified by means of its IR spectrum, melting poing, and mixed point with an authentic sample of ferolin, isolated from Ferula pallida [3], and substance (II) with chimganidin, found in Ferula pallida and Ferula tschimganica [4]. This is the first time that esters of angrendial have been found in the species investigated.

LITERATURE CITED

- 1. V. I. Borisov, V. I. Ban'kovskii, V. I. Sheichenko, and M. G. Pimenov, Khim. Prirodn. Soedin., 674 (1973).
- 2. A. Sh. Kadyrov and G. K. Nikonov, Khim. Prirodn. Soedin., 59 (1972).
- 3. T. Kh. Khasanov, A. I. Saidkhodzhaev, and G. K. Nikonov, Khim. Prirodn. Soedin., 807 (1972).
- 4. A. Sh. Kadyrov, T. Kh. Khasanov, A. I. Saidkhodzhaev, and G. K. Nikonov, Khim. Prirodn. Soedin., 808 (1972).

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