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We have continued a study of the sesquiterpene lactones of Artemesia aschurbajevii C. Winkl. collected in July at Chon-Kemin, KirgSSR [1]. The epigeal part of the plant was exhaustively extracted with chloroform. The extract was evaporated and the residue was dissolved in 60% aqueous ethanol. The aqueous ethanolic solution was extracted successively with petroleum ether and chloroform. The resin obtained after the evaporation of the chloroform was dissolved in a small amount of ethanol and the solution was diluted with water to form a 30% solution. The precipitate that deposited was filtered off and the resin obtained after the evaporation of the filtrate was separated on a column of silica gel with successive elution by benzene and by mixtures of benzene with 2 and 5% of acetone.

The fractions eluted by the mixture of benzene with 2% of acetone yielded two crystalline substances, (I) and (II), with mp 227-229°C and 243-245°C having the same composition  $C_{15}H_{18}O_5$ ,  $M^+$  278. On TLC (silica gel) in the chloroform-acetone (9:1) system, the two substances gave spots with  $R_f$  0.56 and 0.47, respectively. The IR spectrum of (I) showed absorption bands at  $3430\text{ cm}^{-1}$  (OH group),  $1755\text{ cm}^{-1}$  carbonyl of a  $\gamma$ -lactone, and  $1675\text{ cm}^{-1}$  (C=C bond).

The PMR spectrum of (I) (taken on a JNM-4H-100/100 MHz instrument in deuteropyridine) had two signals at 6.04 and 5.20 ppm in the form of doublets due to the protons of an exocyclic methylene group conjugated with a lactone carbonyl, singlets at 1.62 and 1.20 ppm (tertiary methyl groups), and a triplet at 4.55 ppm corresponding to a lactone proton. The IR spectrum of (II) showed absorption bands at  $3440\text{ cm}^{-1}$  (OH group),  $1745\text{ cm}^{-1}$  (carbonyl of a  $\gamma$ -lactone), and  $1665\text{ cm}^{-1}$  (C=C bond).

The PMR spectrum of (II) (taken on a 60-MHz instrument in deuteropyridine) showed the signals of the protons of two tertiary methyl groups (1.15 and 1.35 ppm), of a lactone proton (4.3 ppm), and of an exocyclic methylene group conjugated with a lactone carbonyl (6.68 and 6.12 ppm).

From their compositions and properties and by means of a comparison of spectral characteristics, substances (I) and (II) were identified, respectively, as the sesquiterpene lactones canin and chrysartemin B [2, 3], and this is the first time that they have been isolated from this plant.

## LITERATURE CITED

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3. N. Ohno, J. Gershenzon, C. Roane, and T. Mabry, *Phytochemistry*, 19, No. 1, 103 (1980).

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