

## ESSENTIAL OIL OF *Arischrada dracocephaloides*

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*Arischrada dracocephaloides* (Boiss.) is an annual drought-resistant decorative shrub of the Lamiaceae family. In the flora of the Nakhchivan Autonomous Republic (AR), *A. dracocephaloides* grows on dry rocky slopes and screes of the middle and lower mountain zones. The material for investigation was collected in all the regions of the Nakhchivan AR [1].

The leaves of *A. dracocephaloides*, mixed with other plants, are used in diseases of the liver, the gall bladder, and the gastrointestinal tract; an infusion of them is used in the tanning of leather [2].

The essential oil (EO) was obtained from the comminuted epigeal part of *A. dracocephaloides* by steam distillation [3]. The EO content in the flowering period ranged between 0.9 and 1.4% of the air-dry raw material. The EO consisted of a yellow transparent liquid with a sharp and faintly camphoraceous smell and a burning taste. The physicochemical indices of the EO [4] were as follows: acid No. 4.48; ester No. 21.04; ester No. after acetylation 59.07;  $n_D^{20}$  1.477;  $d_{20}^{20}$  0.8898.

Gas-liquid analysis of the EO was performed, without preliminary separation into fractions, under conditions described previously [5]. The amounts of the components were calculated from the areas of the peaks by the method of internal normalization [6].

In the EO we found 17 components, 50.5% of which consisted of monoterpene hydrocarbons (%):  $\alpha$ -pinene, 4.9; camphene, 8.5;  $\beta$ -pinene, 5.0;  $\alpha$ -terpinene, 31.5; and limonene, 0.6. Oxygen-containing compounds made up 45.0%, including: 1,8-cineole, 0.5; camphor, 38.7; linalool, 2.3; borneol, 0.5; anethole, 0.5;  $\alpha$ -terpineol, 0.7; isoeugenol, 0.5; eugenol, 0.7; and thymol, 0.6. The total unidentified components amounted to 4.5% (Fig. 1).

The action of *A. dracocephaloides* on a number of pathogenic microorganisms has been studied. The results obtained show the promising nature of the EO of *A. dracocephaloides*.

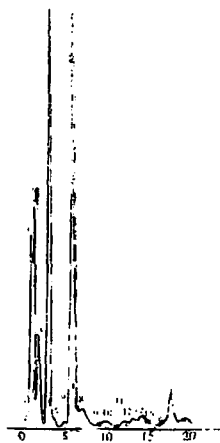


Fig. 1. GLC of the essential oil of *Arischrada dracocephaloides*: 1)  $\alpha$ -pinene; 2) camphene; 3)  $\beta$ -pinene; 4)  $\alpha$ -terpinene; 5) limonene; 6) 1,8-cineole; 7) camphor; 8) linalool; 9) borneol; 10) anethole; 11)  $\alpha$ -terpineol; 14) isoeugenol; 15) eugenol; 16) thymol; 12, 13, and 17) unidentified components.

## REFERENCES

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