

possible metabolic interrelationship.

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THE MONOTERPENE FRACTION OF THE ESSENTIAL OIL OF *Nepeta transcaucasica*

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Nepeta transcaucasica is an endemic essential-oil plant growing in Azerbaidzhan. Individual specimens of the species differ considerably in the composition of the essential oil. In addition to aromatic oils containing citral, geraniol, citronellol, and their esters, unpleasant-smelling components are frequently found [1, 2].

We have studied the composition of the essential oil of *N. transcaucasica*, collected in the environs of the town of Krasnaya Sloboda, Kuba region. The oil content of the air-dry plants in the flowering period was 0.95%. The oil is a light colorless liquid with an unpleasant smell. On the basis of the constants of the oil (n_D^{20} 1.4664; acid No. 11.7; ester No. 24.21; ester No. after acetylation 66.0), it was concluded that the oil contained an insignificant amount of oxygen-containing components. This was also confirmed by the results of gas-chromatographic analysis. Good results were obtained with a column filled with 5% of polypropylene glycol adipate on Celite-545 (1.4 × 0.4 cm). The temperature of the column was programed from 100 to 180°C at the rate of 8°/min. The rate of flow of helium was 18.5 ml/min. Under these conditions the oil was separated into 11 components, 5 of which were hydrocarbons, making up the bulk of the oil.

By fractional vacuum distillation (pressure 5 mm Hg, temperature 46-48°C), the oil was separated into a monoterpene fraction and a high-boiling residue. The monoterpenehydrocarbons amounted to 84.2%. They were separated in a Pye preparative chromatograph. The column (5 m × 0.8 cm) was filled with 10% of polypropyleneglycol adipate on Spherochrome, its temperature was 150°C, and the pressure of helium at the inlet to the column was 0.8 atm.

On the basis of retention times and the increases in the sizes of the peaks when known substances were added, the following components were identified in the essential oil: α -pinene (2.2%), β -pinene (11.8%), myrcene (0.5%), limonene (7.4%), and γ -terpinene (7.81%) [sic]. The main component of the oil - γ -terpinene - was isolated and was also identified by its IR spectrum.

Thus, the essential oil of *N. transcaucasica* is characterized by an exceptionally high content of one component, and we are the first to have reported this.

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