

BRIEF COMMUNICATIONS

ESSENTIAL OIL OF *Rhododendron mucronulatum*

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The essential oil was obtained by steam distillation from leafy shoots of Korean rhododendron *Rhododendron mucronulatum* (Turcz) Vorosch., gathered in the Shkotovskii region of Maritime Territory.

The essential oil obtained was a clear yellow mobile liquid with a sharp but pleasant odor. Physical constants: d_{20}^{20} 0.7276; n_D 1.3871; acid No. 4.7; ester No. 84. Free carboxylic acids 2.19%; phenols 1.37%. The terpenoid fraction amounted to 94.6%.

The terpenoid fraction, freed from acids and phenols, was investigated by GLC under various conditions:

Column 1 — steel (0.3 × 300 cm) filled with Celite 545 (0.2-0.25 mm) with 15% PEGA. Instrument — Chrom-4, with flame-ionization detector; carrier gas argon (25 ml/min); linear programming in the interval from 70 to 190°C at the rate of 2°C per minute. Identification was carried out on a 0.2 mm × 55 m capillary column in the isothermal regime with the addition of authentically known substances, and from the IR spectra of the substances isolated in the individual form.

Column 2 — quartz capillary 25 m long filled with polymethylsiloxane. Instrument Chrom-5; carrier gas nitrogen; pressure 0.5 atm. ($V = 1.3$ ml/min). Linear programming in the interval from 60 to 250°C at the rate of 6°C per minute; temperature of the evaporator 240°C and of the detector 170°C.

Quantitative calculations were performed by the method of simple and internal standardization.

Thirty-nine components were identified: tricyclene, α - and β -pinenes, camphene, *p*-cymene, limonene, Δ^3 -carene, 1,8-cineole, α - and β -thujones, α - and γ -terpinenes, sabinene hydrate, terpinolene, linalool, borneol, bornyl acetate, geranyl acetate, α -phellandrene, terpinen-4-ol, longifolene, caryophyllene, α -muurolene, farnesene, α -humulene, α -selinene, *allo*-aromadendrene, nerol, α -curcumene, β -bisabolene, δ - and β -cadinenes, palustrol, atlantol, viridiflorol, α - and β -eudesmols, juniper camphor, and ledol.

Substances present in considerable amounts were: *allo*-aromadendrene (~37%), α -caryophyllene (~20%), α -humulene (~35%), and limonene (5-7%). The other components were detected in trace amounts.

This is the first time that information on the qualitative composition of the essential oil of Korean rhododendron has been published.

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