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DETECTION OF n-HEPTANE IN THE ESSENTIAL OIL OF REPRESENTATIVES OF THE FAMILY Pinaceae

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There is information in the literature on the presence of n-heptane in the turpentine from some representatives of the genus *Pinus*, family Pinaceae [1, 2]. We are the first to have investigated the essential oils of representatives of all the genera of the family Pinaceae for n-heptane. It has been found that the essential oils, unlike the turpentines, of all the representatives of this family contain n-heptane.

We studied the essential oils of the needles and of one-year winter fruits and established that in representatives of the genus *Pseudotsuga* n-heptane is present in traces, in a genus *Abies* its amount is ~0.70%, in *Picea* traces, in *Larix* about 2.0%, and in *Pinus* about 1.5%.

The analysis of the essential oils was performed on a "Tsvet-3" chromatograph with a column 6 m × 3 mm containing as the stationary phase 12 wt.% of poly(ethylene adipate) on diatomite brick, 0.25-0.5 mm; the temperature of the column was 125°C and that of the evaporator 150°C; the carrier gas was helium, 35 ml/min; FID with a sensitivity in the analysis of n-heptane of 0.25×10^{-8} A, and in the analysis of monoterpenes 10^{-7} A. The rate of flow of air was 300 and of hydrogen 30 ml/min, the speed of the recorder paper 360 ml/h, and the log of the retention volume, log v_R on poly(ethylene adipate) 1.85.

The n-heptane was identified by adding the chromatographically pure substance.

The presence of the n-heptane confirms the uniform synthesis of the essential oils in all the derivatives of the family Pinaceae.

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