

STUDY OF THE CARBOHYDRATES OF THE ROOTS
OF SOME SPECIES OF *Cephalaria*

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We have studied the carbohydrate composition of the roots of two species of *Cephalaria* – *Cephalaria kotschy* Boiss. et Hoh. and *Cephalaria nachiczevanica* Bobr., family Dipsacaceae, collected on July 15-20, 1973, in the flowering stage (Bata-Bat, Nakhichevan ASSR).

The raw material that had been defatted with hot chloroform was extracted with boiling ethanol. The concentrated ethanolic extract was passed through a column of alumina (activity grade III). Elution was performed with ethanol, and the dry residue after the solvent had been driven off was treated with hot butan-1-ol. The residue was repeatedly extracted with hot ethanol. The white crystalline substance insoluble in ethanol (about 8% from *C. kotschy* and 3% from *C. nachiczevanica*, calculated on the air-dry weight of the raw material), which contained no starch, had a sweet taste and was soluble in water and insoluble in organic solvents. mp 183-184°C (aqueous ethanol), $[\alpha]_D^{20} +66.6^\circ$ (c 10.0; water). From its IR spectra and a mixed melting point, the substance isolated was identified as sucrose.

After the isolation of the sucrose, a substance was found in the ethanolic extract by paper chromatography with an R_f value similar to that of D-glucose. This substance was isolated in the form of a phenylosazone with mp 205-207°C. A mixture of the phenylosazones of the substance under investigation and of D-glucose gave no depression of the melting point, and their IR spectra were also identical.

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