

**STUDY ON THE POLYSACCHARIDES OF *CRATAEGUS SANGUINEA*
(ROSACEAE) LEAVES FROM FLORA OF BASHKORTOSTAN REPUBLIC**

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SUMMARY

The article presents a study on isolation and examination of polysaccharide complex from leaves of *Crataegus sanguinea* Pall., growing in Bashkortostan Republic. Water soluble polysaccharides and pectin substances were isolated by precipitation with ethyl alcohol from aqueous solutions. The polysaccharide complex was subjected to acid hydrolysis for the study of monosaccharide composition. Monosaccharides were pre-identified by thin-layer chromatography. In consequence in the water soluble polysaccharide composition, the major components galactose, glucose, d-galacturonic acid, mannose and arabinose as well as minor component xylose were identified by GC-MS method, coincidentally with spectra library were identified. Besides galacturonic acid, the arabinose and galactose were the major components and glucose was the minor component of pectic substances. Fraction of water soluble polysaccharide was a complex of polysaccharide with a dash (9.0 ± 0.1 %) of protein. Content of uronic acids expressed in terms of galacturonic acid was valued as 17.7 ± 0.2 % by spectrophotometry. The wide variation of polysaccharide molecular mass from 1.2 % 103 kDa (61 %, the main fraction), to 9.5 kDa (24 %) was established by high-performance size exclusion chromatography. Pectic substances in leaves were polyurins with 34.3 ± 0.5 % of uronic acids and low content of pf proteins (1.4 ± 0.1 %); only 1 peak was detected on chromatogram with the retention time of 4.880 min that corresponded to polysaccharide with molecular mass of 1.1 % 103 kDa.

Key words: *Crataegus sanguinea*, leaves, water-soluble polysaccharides, pectins, chromatography, monosaccharides.