

### PP3. PHENOLIC COMPOUNDS OF *RHUS GLABRA*

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Among the natural compounds representing medicinal benefits significant place belong to plant phenolics. A wide range of biological action and low toxicity allows include them in a number of promising medicinal formulations in this regard. Therefore, the search for plants containing phenolics, the development of methods for their isolation, the determination of their chemical structure, and the study of biological activity is an actual problem in bioorganic chemistry. In this regard, the aim of our study is study the chemical composition of the polyphenols of the *Rhus glabra* (Smooth sumac) plant, in order to search for new sources of raw materials rich in biological active compounds growing on the territory of the Republic of Uzbekistan. The leaves of *R. glabra* were collected at the end of the vegetative period, air dried in the shade. 70% aqueous acetone used for full extraction of phenolics, after evaporation of acetone under vacuum, the aqueous residue sequentially partitioned with chloroform and ethyl acetate. Ethyl acetate fraction, containing main amount of phenolics (controlled by Folin-Ciocalteu's reagent) vacuum concentrated as far as possible and pool of phenol compounds precipitated by adding of chloroform. The yield of total phenolics was 12% of the air-dry weight of the raw material. Qualitative reactions and TLC methods revealed the presence of flavonols, phenolic acids and tannins in the composition of the total polyphenols. RP-HPLC with corresponding standards and LC-MS/MS shown, that the main constituent of prepared phenolic fraction there was a group of the hydrolysable tannins - poly galloyl glucose. In Table below listed the identified compounds.

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Table 1. List of identified compounds

RT, min	[M-H] <sup>-</sup>	[Mw]	Identification
5.08	169.01	170	Gallic acid
5.86	635.09	636	Trigalloyl-glucoside
6.37	617.09	618	Trigalloyl-levoglucosan
6.82	787.10	788	Tetragalloyl- glucoside
6.86	419.98	420	Cyanidin pentoside
7.13	469.05	470	Valoneic acid dilactone
7.24	939.11	940	Pentagalloyl-glucoside
7.26	771.10	772	1,5-di-O-galloul-3,4-(S)- hexahydroxydiphenoyl protoquercitol
7.30	1091.12	1092	Hexagalloyl-glucoside
7.44	1243.13	1244	Heptagalloyl-glucoside
8.02	537.20	538	Hinokiflavone
8.21	479.08	480	Myricetin glucoside
8.22	153.02	154	Protocatechuic acid
8.52	463.09	464	Quercetin- glucoside
9.26	447.09	448	Quercetin -rhamnosid
9.30	416.21	416	1,3-O-Caffeoyl- dihydrocaffeoylglycerol
15.67	537.08	538	lithospermic acid