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В сборнике представлены материалы международной научной конференции, отражающие результаты фундаментальных и прикладных исследований ученых из Беларуси, России, Азербайджана, Армении, Польши и Германии по актуальным направлениям молекулярной и биохимической фармакологии.

Материалы конференции представляют интерес для биохимиков, фармакологов, физиологов, организаторов здравоохранения и медицинских работников, специалистов в области технологии и производства лекарственных препаратов, а также преподавателей, аспирантов, магистрантов и студентов факультетов медико-биологического профиля.

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**CHARACTERISTICS OF BIOCHEMICAL COMPOSITION AND ANTIOXIDANT
ACTIVITY OF REPRESENTATIVES *FILIPENDULA* MILL. AND *POLEMONIUM* L.**

Aim of the research: to investigate antioxidant activity and characteristics of biochemical composition of *F. hexapetala* Gilib., *F. ulmaria* (L.) Maxim. and *P. caeruleum* L. with following extraction of practical reference to storage and storing of medicinal material, as well as with the purpose of using extract as safe inhibitor of lipid peroxidase process. Equipment used: spectrophotometer «Agilent 8453 UV – visible» (USA), gas-liquid chromatograph «Agilent 6850» (USA) with detector «Agilent 5975» (USA). Obtained results and their novelty: it has been identified, that the contents of salicylates, tannins, flavonoids in plant raw material of *F. ulmaria* (L.) Maxim. and *F. hexapetala* Gilib., as well as the contents of saponins, flavonoids in *P. caeruleum* L. depend on phase of vegetation. The most of active substances is in line with phase of vegetation of buding and flowering in conditions of the central agroclimatic zone of Belarus. It has been identified, that during two-and-half-years process of plant raw material storing, decrease of the contents of salicylates, saponins, tannins, flavonoids in air-dried plant raw material is not more than 5,25% for representatives of sort *Filipendula* Mill. and not more than 6.5% for *P. caeruleum* L.

Extract from medicinal plant raw material of flowers, leaves, subterranean organs, as well as *F. hexapetala* Gilib., *F. ulmaria* (L.) Maxim. and *P. caeruleum* L. of various shelf life have an inhibiting effect on process of plant raw (flax oil) lipid peroxidation and animal (mitochondrial fraction of rats' hepatocytes) lipid peroxidation. Application recommendations: practical reference to storage and storing of medicinal plant raw material on optimal time constraints has been presented. Extractive substances of presented plants may be recommended as inhibitors of peroxidation.

It is proposed to use the finding results in development of new types of foodstuffs with enhanced biological value and scientifically validated methods of quality control of medicinal plant and related phytopreparations.