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#### PHYTOCHEMICAL ANALYSIS OF SEDUM HYBRIDUM L. EXTRACTS AND THEIR PHARMACOLOGICAL PROPERTIES

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The aim of our study was to identify the greatest possible amount of biologically active substances from plant parts Sedum hybridum L. in different phases of vegetation in ontogenesis and compare different periods of maturation: juvenile, vegetative and adult plants.

Like one of the families of the plant world on Earth, the Family of Crassulaceae shrubs and in rare cases, trees, but they are all succulents. Thus, it determines their significance in global climate change and the preservation of terrestrial vegetation from desertification to 90% of the total species diversity by mid-2050 [1].

The uniqueness of this succulent plant is relevant for studying it phytochemical composition as a promising source biologically active components that determine medicinal properties Sedum hybridum L. and suggest it as a more suitable candidate broad-spectrum herbal medicine in the future.

Moreover, the literature data indicate the use of types of Sedums in folk medicine and homeopathy of different countries. There are descriptions of some species of this plant that have pharmacological properties and are used in folk medicine in the treatment of several common diseases such
as: epilepsy, inflammation of the upper respiratory tract, burns, liver diseases, hemorrhoids, in the
treatment of purulent wounds, anemia, nephritis, fever, turbeculosis and severe infections that require
further study in the future. defining subspecies [2,3]. An integral part of this succulent is its antiseptic,
antibacterial, hemostatic, antiviral, diuretic and tonic properties [4-7]. All the above valuable therapeutic benefits Sedum hybridum L. they are manifested due to the presence in medicinal plant raw
materials of such active substances as alkaloids, tanninsbut, gum and rutin, and others [8,9].

We analyzed extracts of plant raw materials in different phases of vegetation and growth periods, using the gas chromatography method with mass spectrometric detection Thus, in the composition of different phases of vegetation of ontogenesis, classes of compounds were identified as: phenols, diterpenes, terpenes, ketones, alcohols, pyrans, monosaccharides, tetrahydrofurans, esters, aromatic acid, carbohydrates, fatty acids, acids, essential oils, organic substances, and tocopherols.

All identified classes of compounds have therapeutic potential in the treatment of the abovementioned topical diseases and have the following properties: It has antiseptic, antibacterial, hemostatic, antiviral, diuretic, and tonic properties.

#### References:

- Edward, O. Biodiversity and Climate Change Transforming the Biosphere Foreword. Chapter II: What is Climate Change? Wilson: New Haven, CT, USA; London, UK, 2019; pp. 14–15.
- Shnjakina G.P., Krasnov V.A. (1974) Akcent na fitohimicheskom i mediko-biologicheskom izuchenii vidov Sedum L. Rastitel'nye resursy [On the phytochemical and medical-biological study of Sedum species. Plant resources] 10:130-139.
- Putyrskij I.N., Prohorov V.N. (2008). Travy. [Medicinal plants]. Knizhnyj dom, Minsk, Belarus. ISBN: 978-985-489-859-9.
  - Berezin V. Je. i dr. [Antiviral activity preparations from plants families Crassulaceae]// Chimiko-pharmaceutical journal. – 2002. – T. 36. – №. 10. - p. 29-30.
- Putyrskij I.N., Prohorov V.N. [Medicinal plants]. Minsk: Knizhnyj dom Publ., 2008, pp. 222-224.

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- Budancev, A.L. Plant Resources of Russia. Flowering Wild Plants, Their Phytochemical Constituents and Biological Activities. Family Crassulaceae; KMK Press: Saint Peterburg, Russia, 2009; Volume 2, pp. 200–206.
- Odontuya, G.; Yoen, H.C.; Young, S.K.; Shi, Y.R. Anti-oxidative and antibacterial constituents from Sedum hybridum. Nat. Prod. Sci. 2011, 17, 279–284.
- Gendaram, O.; Choi, Y.H.; Kim, Y.S.; Ryu, S.Y. Anti-oxidative and antibacterial constituents from Sedum hybridum. Nat. Prod. Sci. 2011, 17, 279–284.
- Terletskaya, N.V.; Seitimova, G.A.; Kudrina, N.O.; Meduntseva, N.D.; Ashimuly, K. The Reactions of Photosynthetic Capacity and Plant Metabolites of Sedum hybridum L. in Response to Mild and Moderate Abiotic Stresses. Plants 2022, 11, 828. https://doi.org/10.3390/plants11060828



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PHYTOCHEMICAL ANALYSIS OF SEDUM HYBRIDUM L.
EXTRACTS AND THEIR PHARMACOLOGICAL PROPERTIES

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