

## IRIDOID GLYCOSIDES FROM *LINARIA GENISTIFOLIA* (L.) MILL. IN BIOLOGICAL CONTROL OF SOIL-BORNE FUNGAL PATHOGENS OF WHEAT AND SOME STRUCTURE CONSIDERATIONS

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**This article is dedicated to the memory of Prof. Pavel Kintia**

**Abstract.** Biological activity of the iridoid glycosides extract from *Linaria genistifolia* (L.) Mill. has been investigated, namely its influence on the resistance of the winter wheat Odesschi 51 plant to the caused by the *Fusarium oxysporum* and *Helminthosporium avenae* pathogenic fungi root rot. Our results indicate that summary iridoid glycosides from this plant, containing four major known compounds: 5-O-allosylantirrinose, antirrinose, linarioside and 6- $\beta$ -hidroxiantirride, can be successfully employed in biological control of the afore-mentioned wheat pathogens: it stimulates wheat grains germination and embryonic root growth in conditions of fungal infection. <sup>1</sup>H and <sup>13</sup>C NMR characteristics of 5-O-allosylantirrinose in Py-*d*<sub>5</sub> are for the first time presented. Structures of two conformers of 5-O-allosylantirrinose in D<sub>2</sub>O and Py-*d*<sub>5</sub> solutions are proposed, based on the experimental NMR evidence and molecular modelling studies.

**Keywords:** *Linaria genistifolia* (L.) Mill., iridoid glycosides, bioactivity, 5-O-allosylantirrinose, NMR, molecular modelling.

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