

Microbial Transformation of Selected Flavanones as a Method of Increasing the Antioxidant Properties

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Antioxidant properties of substrates [flavanone (**1**), 6-hydroxy- (**2**), 7-hydroxy- (**3**), 5,7,4'-trihydroxy- (**5**), and 7-methoxyflavanone (**4**)] and products of their microbial transformations, comprising hydroxylation, *O*-methylation, stereospecific reduction, dehydrogenation, and C-ring cleavage of the benzo- -pyrone system, were determined. Measurements of the antiradical activity (expressed as IC₅₀ value) of both the substrates and the products led to the determination of the impact of type and location of substituents in the tested flavonoids on changes in their antioxidant activities.

Key words: Biotransformation, Antioxidant Activity, Flavonoids