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Shot-Gun Presentations
S6. Bioactive molecules profile of two Lactarius species from Serbia

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Abstract

Mushrooms have become attractive as functional foods and as a source of many biologically active compounds. Different wild mushroom species were reported to have an excellent nutritional value and bioactivity that includes antioxidant and antitumor properties [1-3]. Hence, in recent times, the consumption of mushrooms has risen greatly, comprising a large number of species.

This work presents the profile of organic acids, tocopherols and phenolic compounds of two species of wild mushrooms from Serbia: Lactarius piperatus and Lactarius rufus. Organic acids were determined by UFLC-PDA; tocopherols were analysed by HPLC-fluorescence and the phenolic compounds characterization was made by HPLC-DAD/MS. It was possible to quantify oxalic, quinic, malic, citric and fumaric acids in both species, being malic acid the majority organic acid found in these samples. However, L. rufus revealed a higher content in total organic acids comparing with L. piperatus (12.43 g/100 g dw and 9.40 g/100 g dw, respectively). Concerning tocopherols, the four isoforms of vitamin E (α-, β-, γ- and δ-tocopherol) were detected in both species. Herein, L. piperatus was the species that holds the highest concentration of tocopherols (80.38 µg/100 g dw), due to the contribution of β-tocopherol (47.43 µg/100 g dw). About phenolic compounds, it was only possible to quantify p-hydroxybenzoic acid in L. rufus. Nevertheless, it was detected the related compound cinnamic acid in both species.

This work results from a Project in cooperation with the University of Belgrade, and the main purpose is the enhancement of the mycological flora as functional food and as a source of compounds of interest, allowing comparison between Portuguese and Serbian species.

References


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CERTIFICATE

Hereby it is declared that

Filipa S. Reis, Dejan Stojković, Marina Soković, Ana Ćirić, Jasmina Glamočlija, Lillian Barros, Isabel C.F.R. Ferreira

Presented a shot-gun talk entitled "Bioactive molecules profile of two Lactarius species from Serbia" in the 1st International Symposium on Profiling – ISPROF, held in Caparica, Portugal, during days 2, 3 and 4 of September 2013

Prof. José Luis Capelo Martínez

Congress Chair