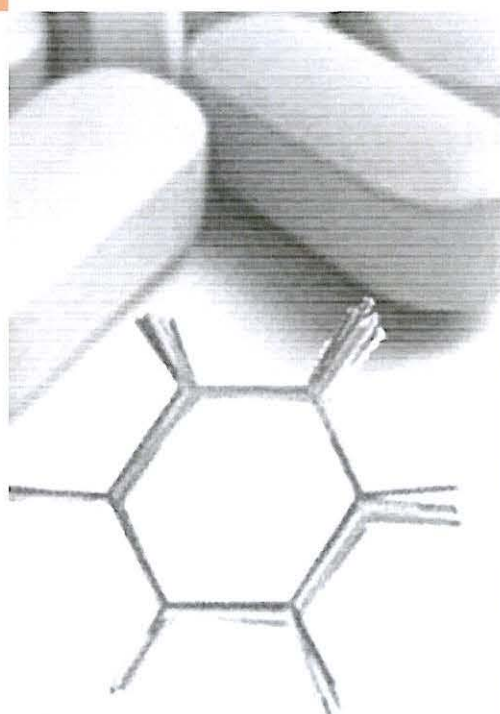


1st Symposium on MEDICINAL CHEMISTRY of University

Braga

Campus de Gualtar
17 May 2013



Universidade do Minho
Escola de Ciências



1911-2011
100 ANOS

***Agaricus albertii* as a source of bioactive compounds: comparison between Portuguese and Serbian species**

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Mushrooms are widely appreciated all over the world for their nutritional [1] and bioactive properties, being a source of antioxidant compounds [2]. Its consumption has increased over the last years and, due to the increased information available related to edible mushrooms, even rare species started to be an option as food. In this work, the chemical characterization and the antioxidant properties of *Agaricus albertii* Bon., collected in Portugal and Serbia, were evaluated and compared. The individual profiles of organic acids and phenolic compounds were obtained by UFLC-PDA; tocopherols and free sugars were characterized by HPLC-fluorescence and HPLC-RI, respectively, and the fatty acids profile was obtained by GC-FID. The antioxidant properties were assessed through the evaluation of the reducing power, radical scavenging activity and lipid peroxidation inhibition of the samples. The Serbian sample revealed the highest levels of total organic acids (5.14 g/100 g dry weight) while the Portuguese one gave the highest content in phenolic acids (11.76 mg/100 g). In this sample, it was not possible to identify tocopherols. Rhamnose was only found in *A. albertii* from Serbia (2.65 g/100 g), while fructose was only found in the Portuguese sample (0.48 g/100 g). Mannitol and trehalose were quantified in both samples. Polyunsaturated fatty acids predominated over mono- and saturated fatty acids. Generally, the sample from Serbia revealed the highest antioxidant potential, with the highest reducing power, radical scavenging activity and lipid peroxidation inhibition evaluated through the β -carotene/linoleate assay. This work is the result of a cooperation between Portugal and Serbia, allowing a comparative study within the same species from different origins.

Acknowledgments:

FCT (Portugal) and COMPETE/QREN/EU for financial support through research project PTDC/AGR-ALI/110062/2009, PESt-OE/AGR/UI0690/2011 CIMO strategic project and L. Barros grant (SFRH/BPD/4609/2008), and to Serbian Ministry of Education and Science for financial support (grant number 173032).

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