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ASSESSMENT OF MACROMYCETES USING FOURIER TRANSFORM INFRARED SPECTROSCOPY AND CHEMOMETRICS

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Abstract

Eight species of macromycetes which grow in phytocoenosis from “Călimani National Park” (Eastern Carpathians, Romania) have been analysed using Fourier Transform Infrared spectroscopy (FTIR). Among the analysed species, five species are being considered edible (*Clitopilus prunulus*, *Pleurotus eryngii*, *Macrolepiota rhacodes*, *Laccaria laccata* and *Suillus luteus*) and three species are being considered toxic (*Lyophyllum connatum*, *Paxillus involutus* și *Gyromitra infula*). The results of first derivatives of the spectra “finger print” domain have been statistically processed using Principal Component Analysis (PCA) and cluster analysis. The use of these methods permitted the grouping of studied macromycetes species in two categories toxic.

Key words: chemometrics, FTIR spectroscopy, macromycetes

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