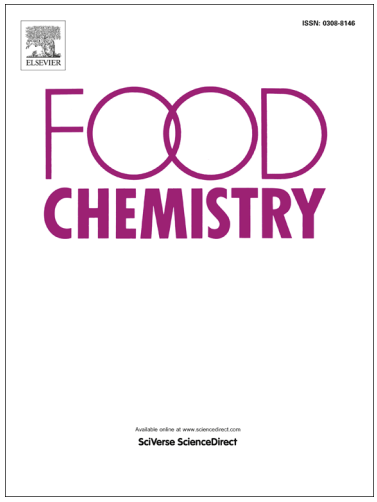

Analytical Methods

Study of Heavy Metal Concentrations in Wild Edible Mushrooms in Yunnan Province, China

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Study of Heavy Metal Concentrations in Wild Edible Mushrooms in Yunnan Province, China

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Abstract: Contamination with heavy metals in several species of edible mushrooms from the Yunnan Province in China was determined. Samples were collected from 16 locations in the Yunnan Province, and the contamination levels of Mn, Fe, Cu, Zn, As, Cd, and Pb were analyzed. The results demonstrated that the concentrations of essential elements (Mn, Fe, Cu, and Zn) in the mushrooms were at typical levels. The concentrations of potentially toxic metals (As, Pb and Cd) were higher than the national standard values of China (1.0 mg/kg for As, 0.2 mg/kg for Cd, and 2.0 mg/kg for Pb) in most cases. Bio-concentration factors suggested that it was easier for As and Cd to be accumulated in mushrooms than Pb, and a Health Risk Index assessment also suggested that As and Cd are greater risks to health than Pb. In conclusion, heavy metal pollution in wild edible mushrooms is a serious

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