

Selenium Accumulation in Mycelia of *Flammulina velutipes* during Fermentation Determined by RP-HPLC

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A method to estimate the content of selenium in organics was introduced based on reversed phase-high performance liquid chromatography (RP-HPLC). The maximum absorption peak of piaszelenol was at 330 nm and the optimized temperature and pH value were 40 °C and 2.8, respectively. The minimum detection concentration of selenium(IV) was 0.06 g/mL and the measurable range was 0.12–12.0 g/mL. The organic selenium accumulation in golden needle mushroom (*Flammulina velutipes*) mycelia was obtained by subtracting the amount of inorganic selenium from that of total selenium. The organic selenium accumulation of various inoculation amounts showed that organic selenium accumulation in a unit volume of the fermentation broth was positively related the inoculation amount. Compared with the methods reported previously, the method used here is simple, reliable and less toxic.

Key words: *Flammulina velutipes*, Mycelia, RP-HPLC, Selenium