

A Comparative Study on the Extraction Methods of Functional Components from *Gastrodia elata* Blume

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Abstract

Gastrodia elata Blume (Chunma) belongs to Orchidaceae, which is a perennial parasitic herbaceous plant and grows in the woods of the central provinces of China, Korea and Japan. Recently, the constituents of the tubers of this plant have been investigated by researchers who have revealed the presence of phenolic compounds including gastrodin as a major constituent, together with 4-hydroxybenzaldehyde, 4-hydroxybenzyl alcohol, parishin, 4,4-dihydroxybenzyl sulfoxide, vanillin, vanillyl alcohol, beta-sitosterol, organic acids and polysaccharides, etc. In this study, we compared the extraction yields of the hot water, organic solvents and supercritical fluids system for the effective extraction of functional components. The contents of functional components such as gastrodin, vanillin, vanillyl alcohol, 4-hydroxybenzaldehyde and 4-hydroxybenzyl alcohol were analyzed by HPLC. We also used Electronic nose for the aroma pattern analysis of extracted Chunma.

References

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