

RESEARCH PROJECT



Determination of catechins and flavonol glycosides in Chinese tea varieties

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Description A standardised profiling method based on high performance liquid chromatography combined with ultraviolet (UV) and mass spectrometric detection (MS) was established to analyse the phenolic compounds of selected tea varieties used for manufacturing of green, black and oolong teas. The composition and content of 24 tea constituents were analysed, including catechins, flavonol and flavones glycosides, phenolic acids and purine alkaloids. Each tea variety had a unique chemical profile. The compositions of catechins were lower in the tea varieties for green tea manufacturing, while the content of myricetin glycosides was the lowest in the tea variety for oolong tea manufacturing. The content of individual phenolic compounds in the selected tea varieties is highly variable. However, the content of total catechins is proposed to be helpful to classify tea according to the future application as non fermented green and fermented oolong or black tea.

C. Wu, H. Xu, J. Héritier, W. Andlauer: Determination of catechins and flavonol glycosides in Chinese tea varieties. Food Chemistry 2012, 132, 144-149

C. Wu, H. Xu, J. Héritier, W. Andlauer: Identification and quantification of the flavone glycosides in tea cultivars by LC-MS/MS. Journal of Tea Science 2012, 32 (2), 122-128

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