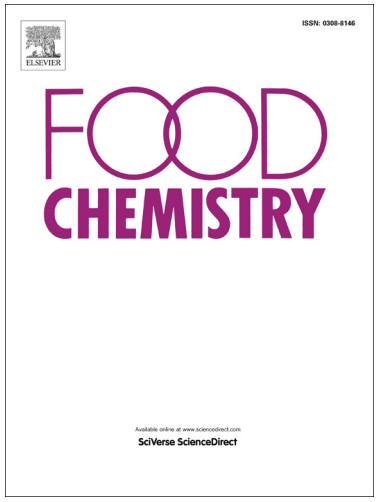

Analytical methods

Investigation of the distribution and season regularity of resveratrol in *Vitis amurensis* via HPLC–DAD–MS/MS

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Investigation of the distribution and season regularity of resveratrol in *Vitis amurensis* via HPLC–DAD–MS/MS

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ABSTRACT

This study aims to investigate the change trend of resveratrol contents in different tissues of *Vitis amurensis* Rupr. during the different seasons in a year. A rapid and sensitive method using high-performance liquid chromatography coupled with diode array detection and tandem mass spectrometry was developed. Resveratrol is mainly distributed in the rhizomes and roots of grape plants. It is also found in leaves and vines, but to a lesser extent. Resveratrol contents are augmented gradually in rhizomes and roots from January to September, and then decrease until January of the following year. During grape ripening, grape skins are also an available source of resveratrol. In conclusion, *V. amurensis* is a rich source of resveratrol. The distribution of resveratrol in *V. amurensis* reported in this study can contribute to the future application of resveratrol.

Keywords: *Vitis amurensis*, resveratrol, content, HPLC–DAD–MS/MS

1. Introduction

Resveratrol (3,4′,5-trihydroxystilbene) has been proposed to offer potential positive therapeutic

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