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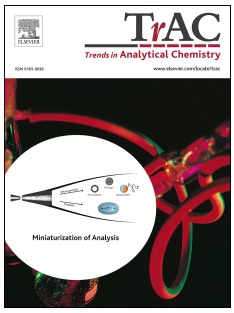

Detection, identification and determination of resveratrol in wine. Problems and challenges

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Detection, identification and determination of resveratrol in wine. Problems and challenges.

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Abstract

Resveratrol is a compound synthesized by plants in response to unfavorable conditions of growth like mechanical injury, siege of bacteria or fungi and UV exposure. It is concentrated mostly in grapes skin and further more in the products made from grapes especially red wines. Each wine is characterized by different amount of given stilbene since its occurrence is affected by many factors like: types of grapes, environment (climate, soil, region) and winemaking technologies. Due to its health beneficial effects, people are very interested in resveratrol and its activity to deal with some diseases.. Therefore, its determination and quantification is of high importance. However, the complexity of wine matrix makes its analysis very challenging. The study provides data of the resveratrol occurrence in different types of fruits and wines, regarding region they come from and comparison of analytical techniques and challenges taking into account their process and green assessment.

Key words: resveratrol, wine, gas chromatography, green assessment, GAPI

1. Introduction

Standards of living in many well-developed countries have increased across last decades, what then pushed people to put greater attention on the healthy life style and what is more quality of food products. Nowadays, people are more and more conscious, that products they eat may have positive or negative effects on their health. There is a general trend for the healthy life style in order to maintain good health conditions as well as to slow down the aging processes. Technology progress and scientific development have contributed to the discovery of dependence between diet and human health. Currently, it is known, that food products besides supplying of nutrients to human body are also valuable sources of compounds, acting prophylactically and sometimes even supportively in the treatment of

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