UNIVERSITE
DE REIMS
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EIGHT SYMPOSIUM

In Vino Analytica Scientia 2013

Analytical Chemistry for Wine, Brandy and Spirits

Book of Abstracts

Edited by Philippe JEANDET

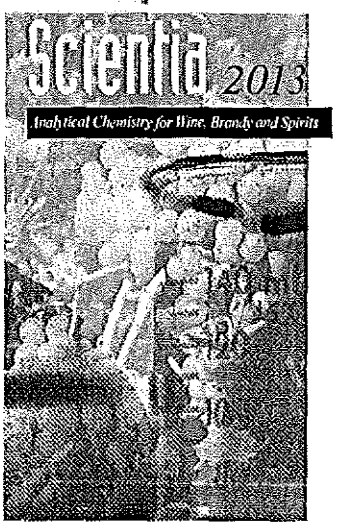
[IVAS] 2013

IN VINO ANALYTICA SCIENTIA SYMPOSIUM 2013

University of Reims, Faculty of Sciences - july 2-5 2013

IN VINO ANALYTICA SCIENTIA SYMPOSIUM 2013 - BOOK OF ABSTRACTS - Edited by Philippe JEANDET

IN VINO ANALYTICA SCIENTIA SYMPOSIUM
2013
Reims 2 -5 July



P43: Effect of Commercial Mannoprotein Addition on Polysaccharide, Polyphenolic, Colour Composition and on Sensory Profile in Red Varietal Wines

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Keywords
Mannoproteins, polysaccharides, wine colour, polyphenols, sensory analysis and red varietal wines

Contribution

The aim of this work was to evaluate the effect of commercial mannoproteins on wine polysaccharides, colour stability, polyphenol composition and on sensory analysis of three varietal wines. For this purpose, commercial mannoprotein derivatives were added after malolactic fermentation in the red varietal wines Monastel, Maturana Tinta de Navarrete and Tempranillo, which were elaborated under real winemaking conditions. Glycosyl residue composition and polysaccharide families of wines were determined by GC-MS [1]. Colour parameters were analysed by absorbance measurements [2], whereas monomeric phenolics and proanthocyanidins were determined by HPLC-DAD [3, 4].
The results showed that the highest polysaccharide content, the highest decrease were observed, suggesting that a higher extraction of polysaccharides was not as interesting as expected. Significant lower values were found in wine colour, stable colour and in total hydroxycinnamic acids in treated wines. From a sensory point of view, positive effects were found in Tempranillo and Maturana Tinta de Navarrete treated wines. Thus, Tempranillo treated wines showed higher values in fruity and liquorice, and lower in astringency whereas Maturana Tinta de Navarrete treated wines showed more sweetness and mouth length.
Mannoprotein addition did not to favour the stabilization of colour and polyphenols in wines. However, their addition could be proposed as a strategy for reducing precursors of ethyl phenols and for improving sensorial properties in wines.

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