



# **In Vino Analytica Scientia 2011**

## **Proceedings of the 7<sup>th</sup> Symposium**

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**In Vino Analytica Scientia 2011 - Analytical Chemistry for Wine, Brandy and Spirit  
Proceedings of the 7<sup>th</sup> Symposium**

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## CA82: Anthocyanic profiling of twenty-one different hybrid grape varieties

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The importance of natural extracts for food, nutraceutical, pharmaceutical and colorant industries makes interesting the study of vine varieties not necessarily used for wine production. Moreover, determination of grape anthocyanins can be used for varietal characterisation [1,2].

In this work, the qualitative and quantitative study of anthocyanins of 21 red hybrid grapes, of which profile for most of them was not reported in the literature before, was performed by HPLC/DAD. Identification of compounds was confirmed by LC/MS, and performing MS/MS experiments using a triple quadrupole system operating in precursor ion scan mode. On the basis of anthocyanic profile and of diglucoside precursor ions identified, it was possible to divide the samples into two groups: one characterized by important presence of diglucoside compounds (in particular varieties such as Seyve Villard 23.399, Seyve Villard 23.369 and Bertille Seyve 4825 that showed a diglucoside percentage content of 79%, 76%, and 64%, respectively), another group characterized by low presence or practically absence of diglucosides (in particular Burdin 4077, Galibert 238-35, and Seibel 10878).

The anthocyanin content was the highest in Seibel 8357 (about 5300 mg/kg grape expressed as malvidin-3-O-glucoside), a variety with low percentage of diglucosides (13%).

High content of acylated anthocyanins was found in Red Niagara grape, in particular of malvidin-*p*-coumaroylglucoside, the presence of pelargonin was found in variety Baco 1.

[1] R. Di Stefano, Riv. Vitic. Enol. 1 (1996) 51-56.

[2] J. He, M.M. Giusti, Annu. Rev. Food Sci. Technol. 1 (2010) 163-187.

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