



Universiteit  
Leiden  
The Netherlands

## **NMR spectroscopy and chemometrics-based analysis of grapevine**

Ali, K.

### **Citation**

Ali, K. (2011, September 20). *NMR spectroscopy and chemometrics-based analysis of grapevine*. Retrieved from <https://hdl.handle.net/1887/17843>

Version: Corrected Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/17843>

**Note:** To cite this publication please use the final published version (if applicable).

## STELLINGEN

Behorende bij het proefschrift

### **NMR Spectroscopy and Chemometrics-based Analysis of Grapevine**

1. The use of different extraction methods is a good strategy for the comprehensive profiling of plant metabolites (this thesis).
2. Metabolically, *Veraison* stage is the turning point in grape berry ripening (this thesis).
3. Wine metabolomics provides a tool to understand factors contributing to wine taste (this thesis).
4. The processing of grapes to make wine is needed to improve bioactivity (this thesis).
5. In Grapevine (*Vitis vinifera*), the biosynthesis of phenylpropanoids and flavonoids is the inducible line of defense against fungal pathogens (this thesis).
6. Algorithms for new and efficient data regression models are needed not only to generate useful information from the metabolomics data but also to combine different '-omics'.
7. A systems biology approach is necessary for the complete understanding of different physiological processes in a living system.
8. Fluxomics might be more suitable than metabolomics for studying of dynamic biochemical processes.
9. An important factor to consider in bioactivity of food is how much the active ingredient can be absorbed and how fast it is cleared by the living system.
10. Although wine was shown to be active against many diseases, it is still not good to be an "alcoholic".
11. It would be good to have a journal for "Failed Experiments".
12. Success in planning is planning a success.
13. Experience saves to commit mistakes but can be gained by committing them.

**Kashif Ali**  
**Leiden University**  
**September 20, 2011**