

# Aroma characterization of mold resistant base wines for sparkling wine produced in a warm-temperate area at two different altitudes

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Grape harvest at technological maturity for the production of sparkling wines

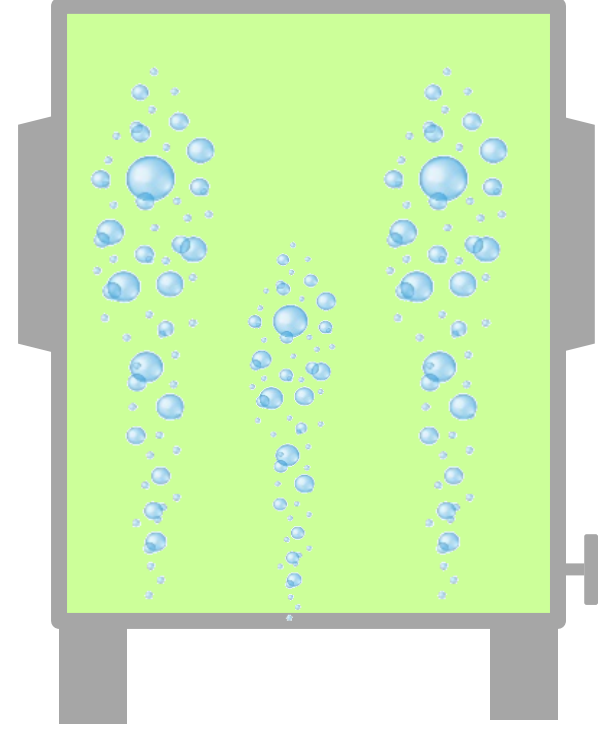


Sugars: 180-195 g/L  
Titratable acidity: 9-11 g/L

Pneumatic press of whole bunches under CO<sub>2</sub> protection. SO<sub>2</sub> (15 mg/L) and ascorbic acid (5 mg/L)



Alcoholic fermentation carried out by selected yeasts at 20°C (DV10; 200 mg/L)



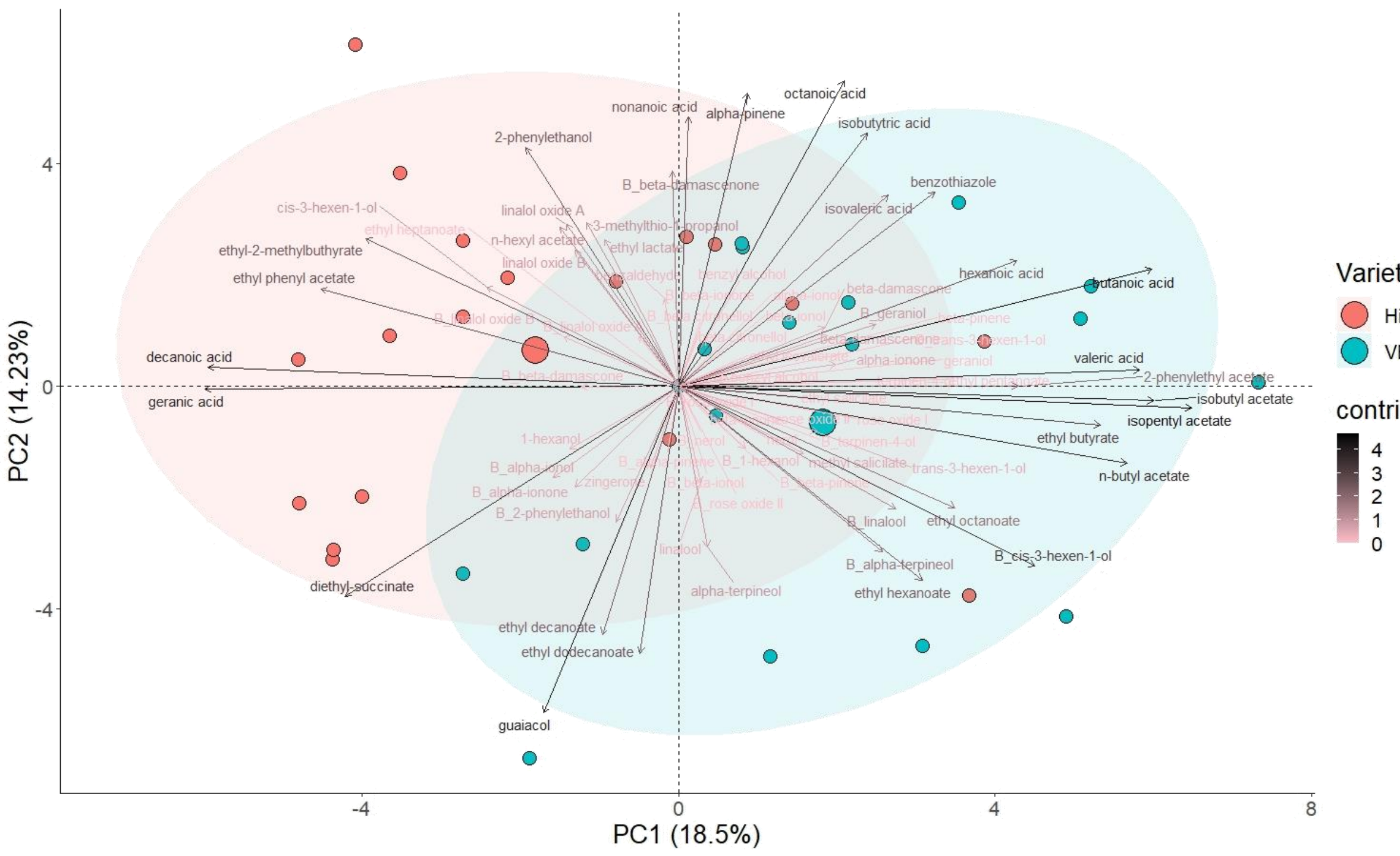
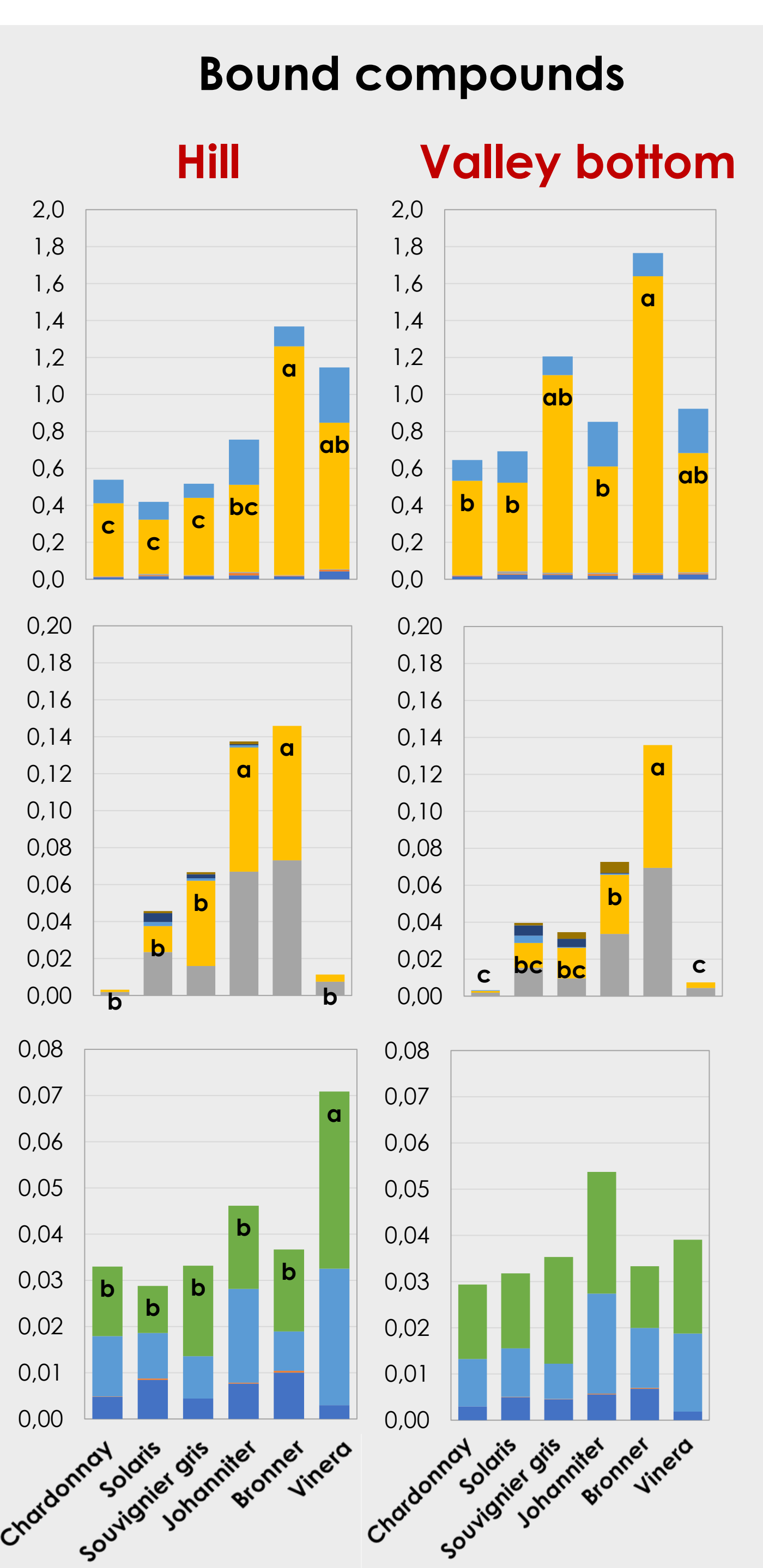
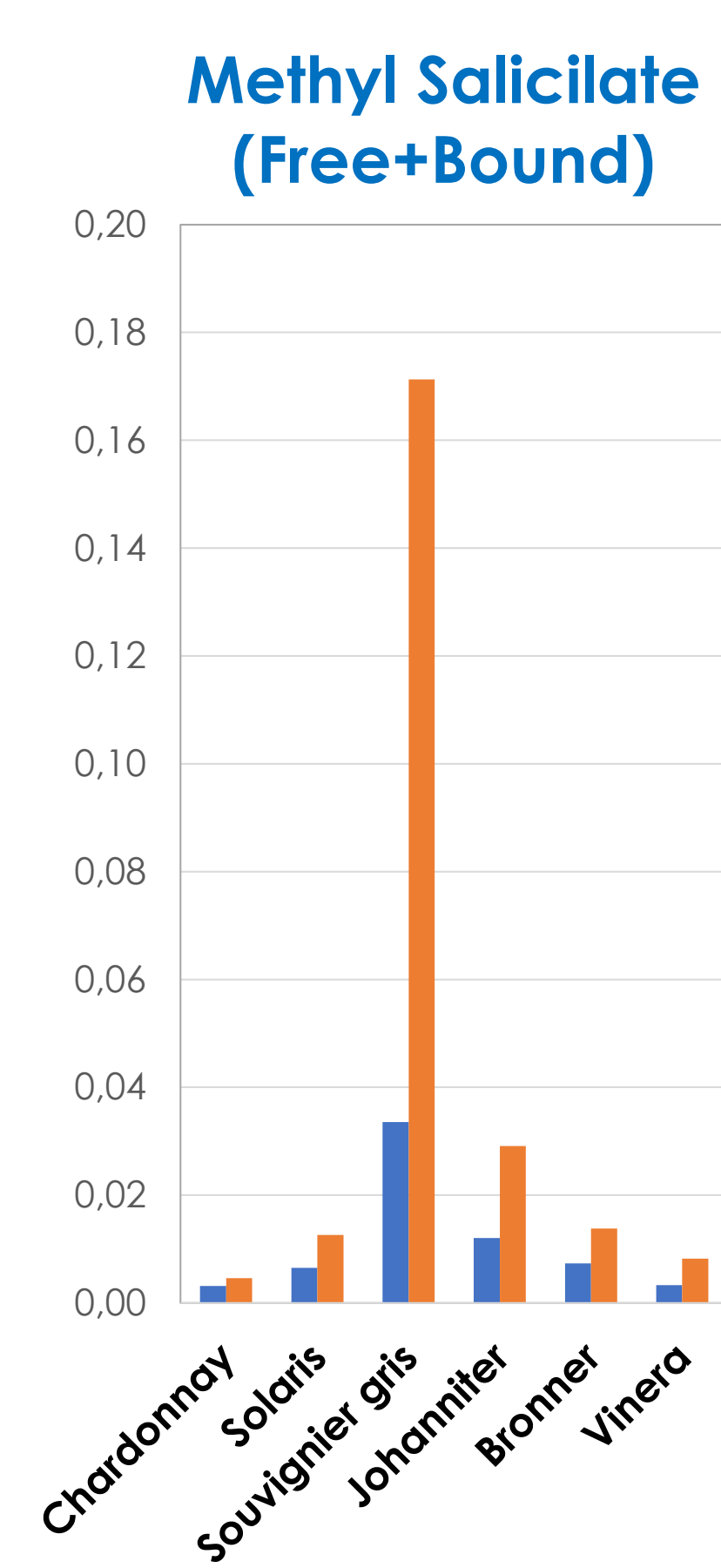
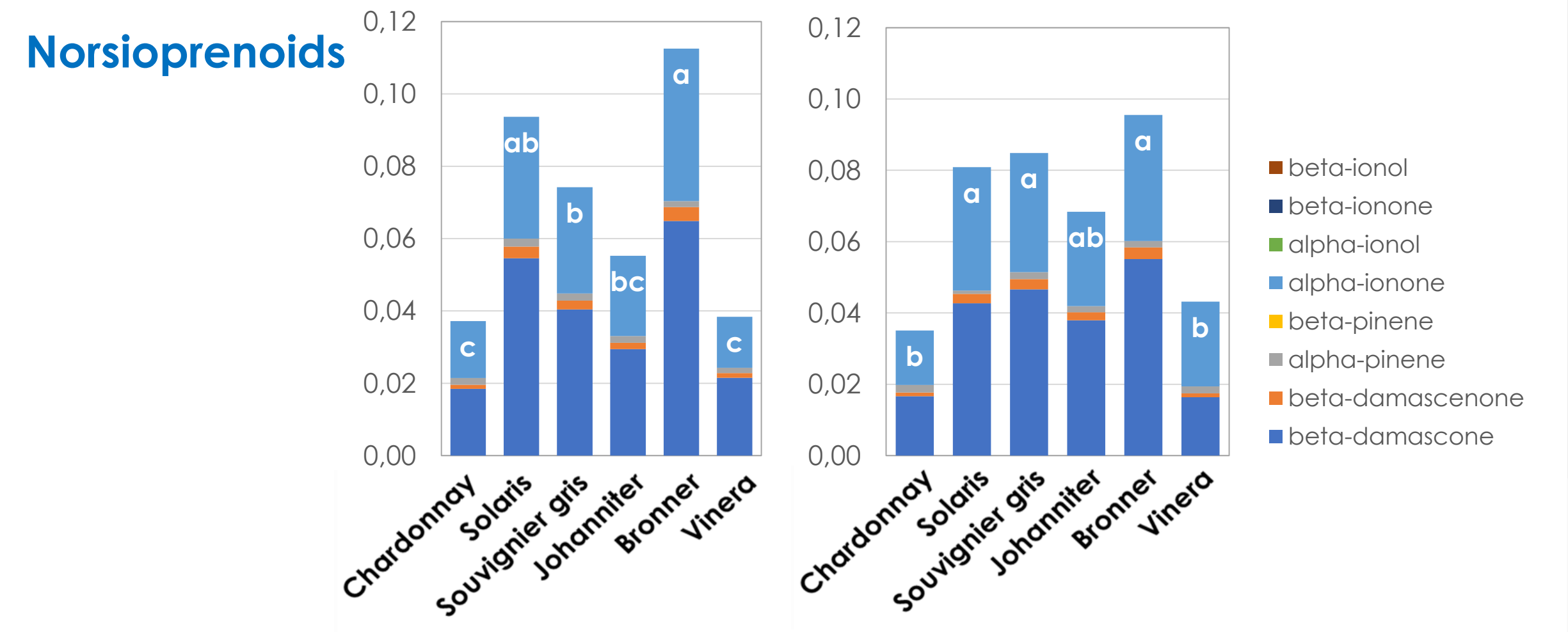
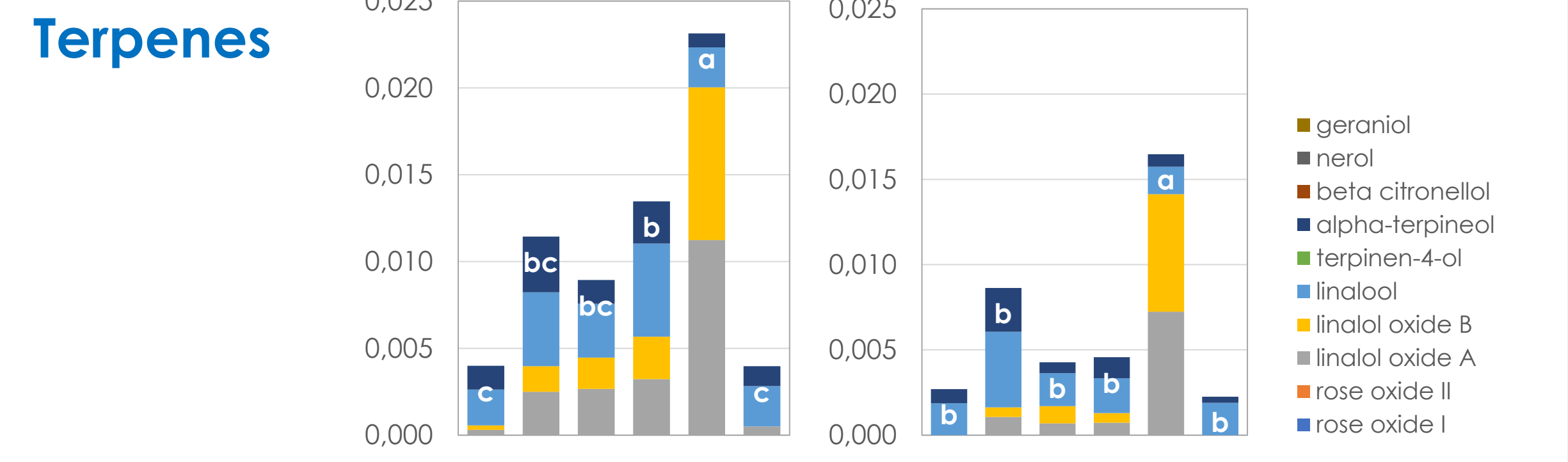
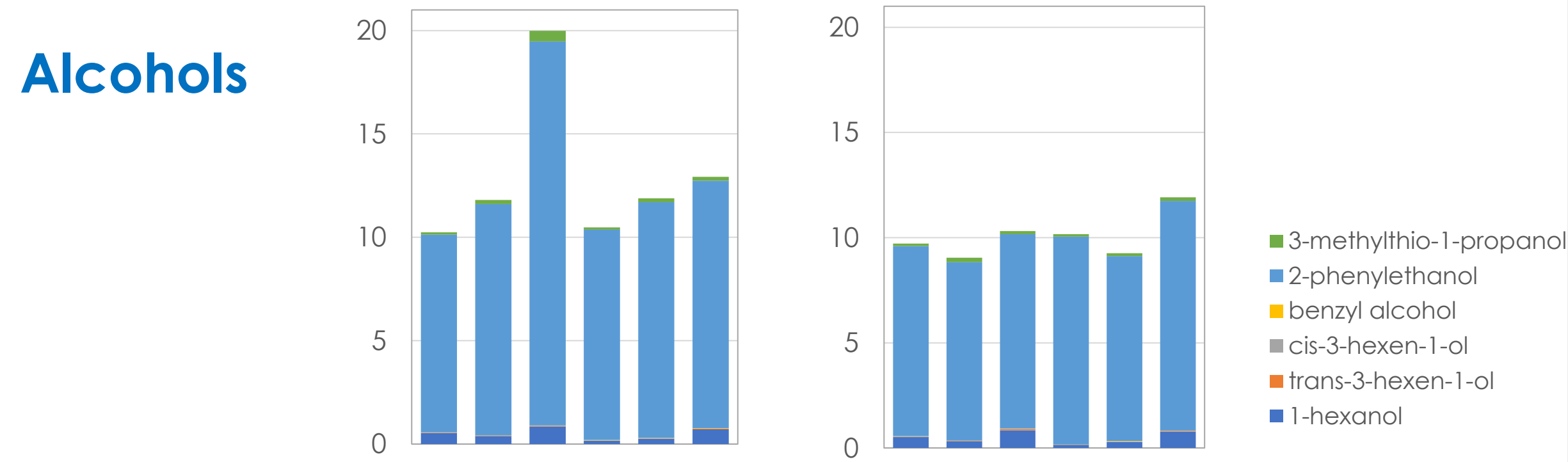
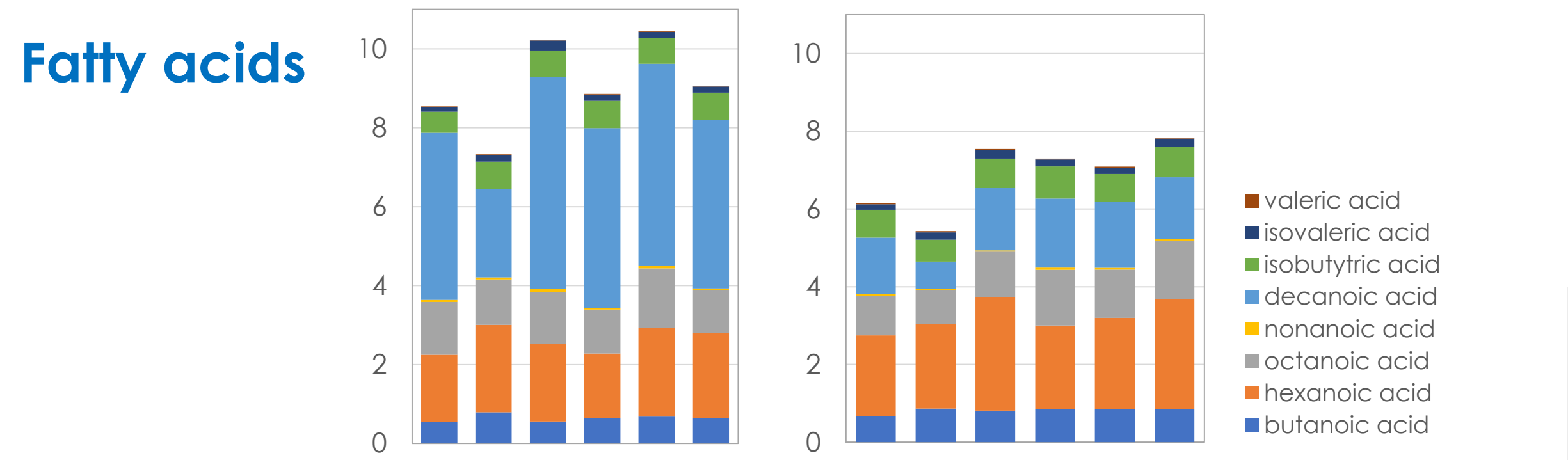
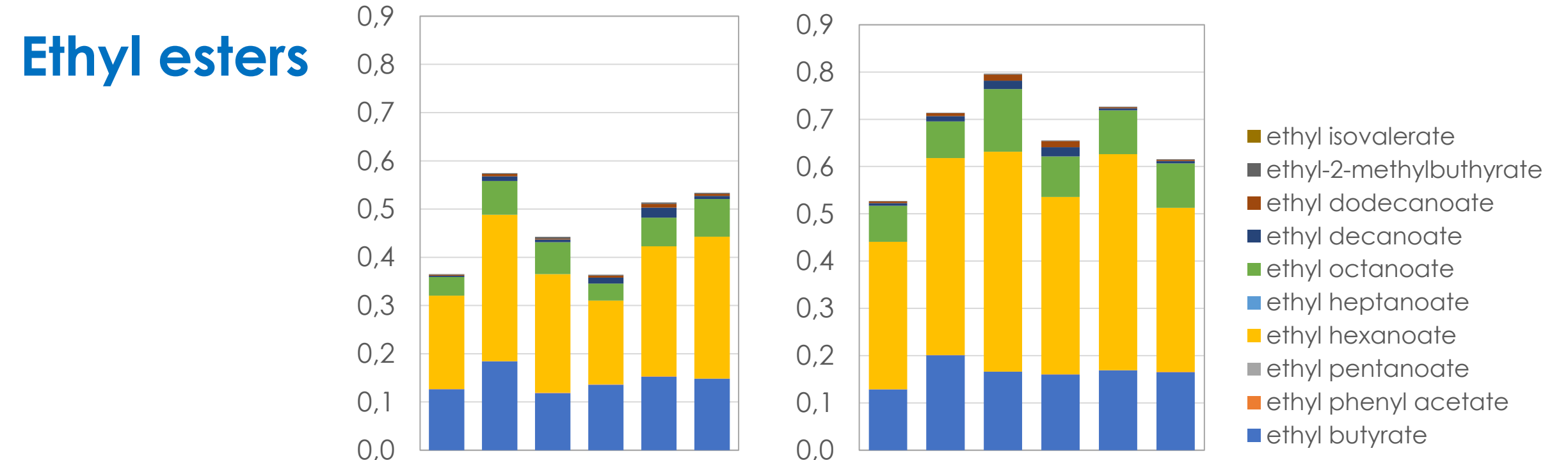
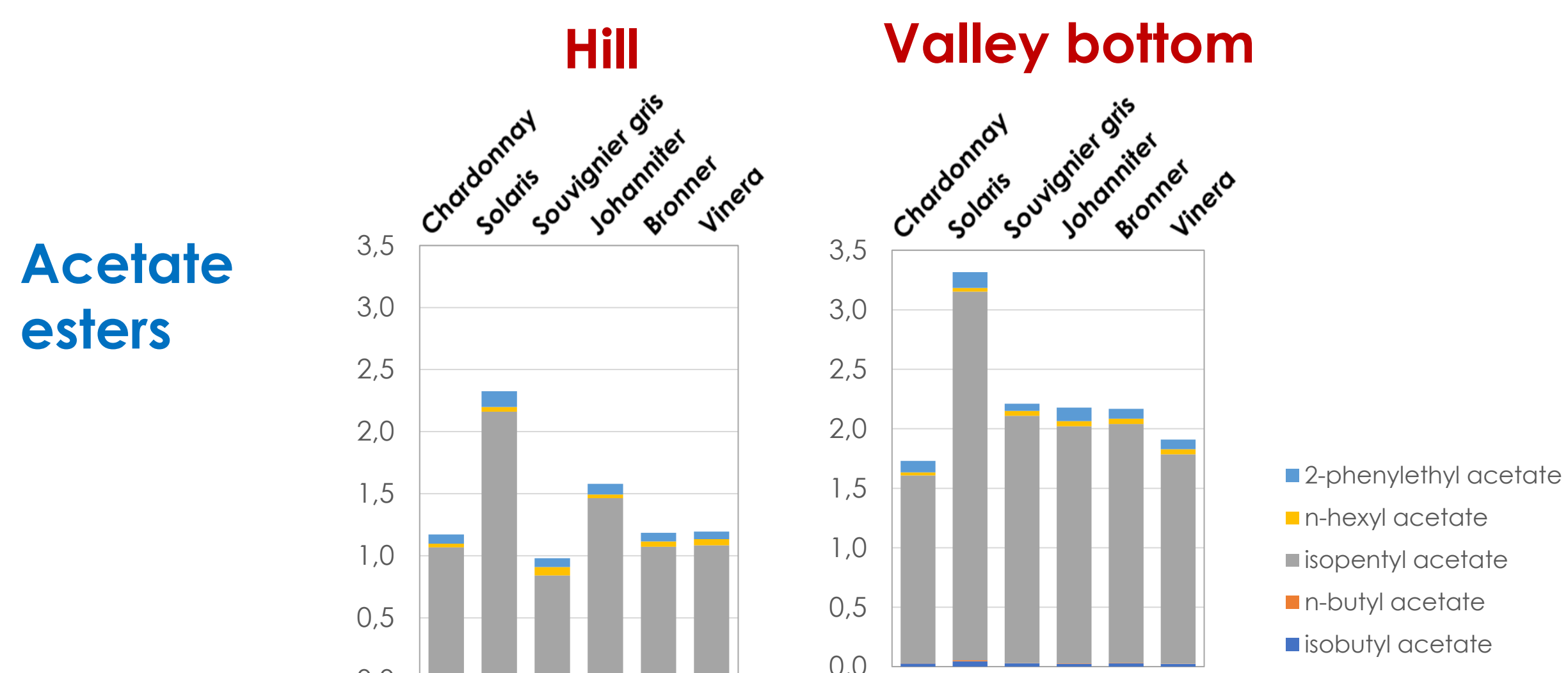
GC-MS/MS analysis



Paolini et al. (2018). J Mass Spec. 53(9), 801-810.

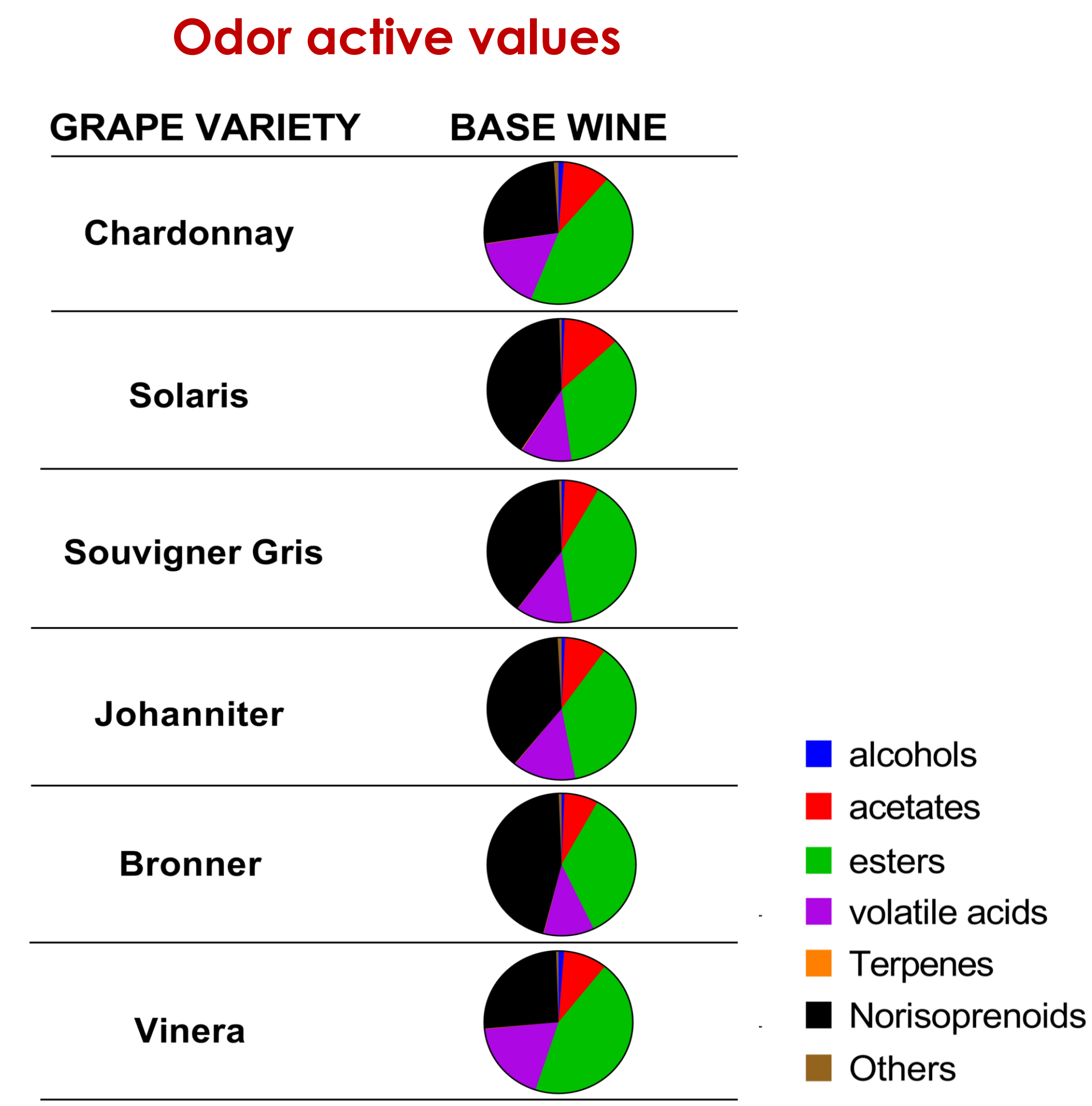
This work aims to study the volatile composition of base wines produced from five resistant varieties (Bronner, Solaris, Johanniter, Souvignier Gris, Vinera) cultivated in two experimental vineyards located Trentino (IT): one situated on the valley bottom (VB) and one in the hill (Hill). The results were comparing with those of Chardonnay, the main variety used in this area nowadays for this product, cultivated in the same plots.

All results are expressed in mg/L as the mean value of the three harvest. Values used for each harvest are the mean value of two biological replicates



The principal component analysis (PCA) show a partial discrimination between the two vineyards (valley bottom and hill) based on the content of fatty acids, ethyl esters, acetate esters and alcohols.

	Valley bottom (VB)	Hill
Terpenes		n.s.
Norisoprenoids		n.s.
Fatty acids		Hill > VB
Ethyl esters		VB > Hill
Acetate esters		VB > Hill
Alcohols		Hill > VB



Souvignier Gris is characterised by methyl salicylate and 1-hexanol, while Solaris stands out for the concentration of β-damascenone, acetates and ethyl esters. Bronner shows significant contents of β-damascenone and linalool. Linalool is also present in higher quantities in Solaris and Johanniter.

For more information:

Acknowledgement

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"The author(s)/editor(s) acknowledge the financial support for this project provided by transnational funding bodies, partners of the H2020 ERANETS SUSFOOD2 and CORE Organic Cofunds, under the Joint SUSFOOD2/CORE Organic Call 2019," and the Province of Trento through the V.E.V.I.R ("Valutazione enologica viti resistenti") project, PSR 2014-2020, Operation 16.1.1 "Gruppi Operativi nell'ambito del Partenariato Europeo dell'Innovazione (PEI)."