

Wine of ancient grape cultivars characterization

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State of art

Minor grape varieties are located in all Emilia Romagna region, and they could be produced for both white and red wines winemaking.

According to Maul et al. (2017), these varieties can be identified depending on threat categories defined by IUCN. Although a lot of analyses have been done by using NIR, NMR and LC-MS/MS (Ferrari et al., 2011; Flamini et al., 2012), there is a lack about minor varieties wine characterization and polyphenolic compounds quantification. Moreover, these varieties could represent a biodiversity source to increase the production of high quality wines (Mattivi et al., 2002). Indeed, in the last years there was a strong positive trend about PDO and PGI sparkling wines, such as Lambrusco (Ismea, 2017).

Activities

In this first year of PhD project qualitative and quantitative analyses for wine characterization were carried out. Regarding to the the fragments determination were used both Ion Trap LC/MS and LC- MS/MS Orbitrap (CIGS, UNIMORE). For aroma analyses and polyphenols determination were used GC/MS (Figure 1) and HPLC (Figure 2), respectively. In addition, winery analyses were carried out. The wine characterization were done for three minor cultivar of *Vitis vinifera* L. from the provinces of Forlì – Cesena and Modena, and for two organic Lambrusco wines, compared with the respective traditional wines.

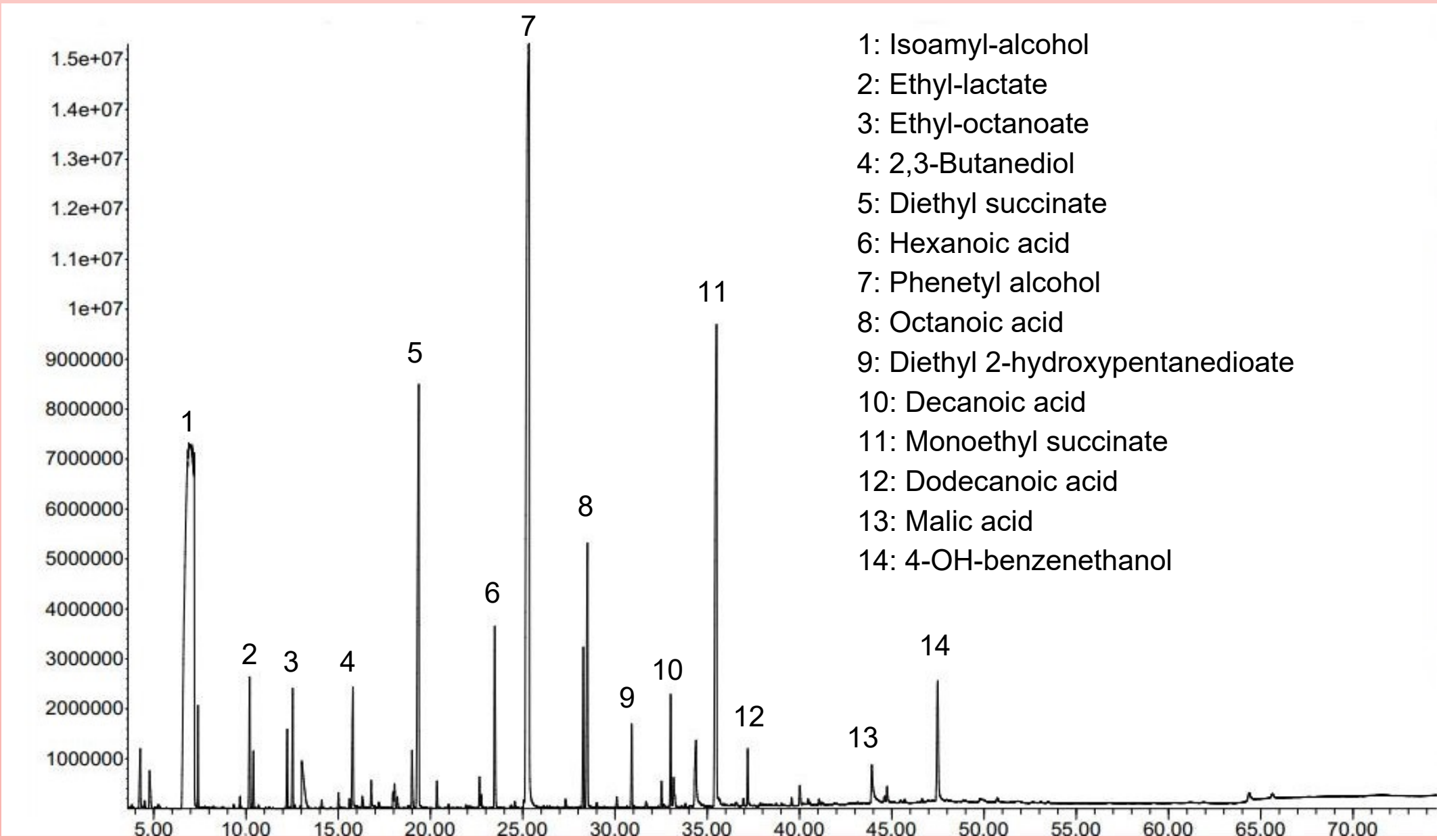


Figure 1. Aromatic profile of Albana rosa.

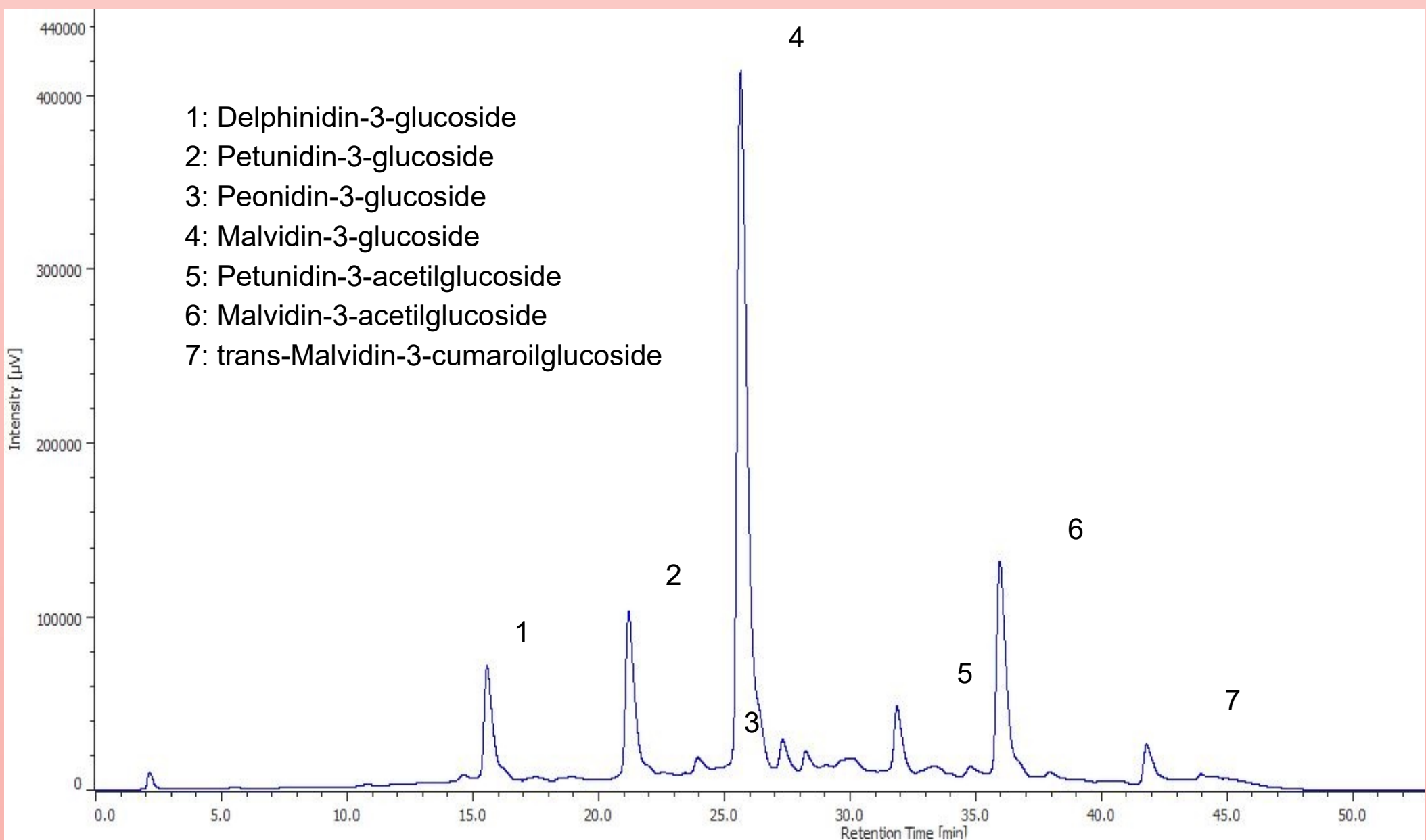


Figure 2. Anthocyanic profile of organic Lambrusco (Salamino).

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