

Session of the conference: Sensory related active compounds: perceptions, acceptations, prescriptions and discourses

Preference: poster presentation

EFFECT OF FINING AND FILTRATION ON THE POLYSACCHARIDE AND PROANTHOCYANIDIN COMPOSITION OF RED WINES

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The aim of this work was to study the effect of clarification and filtration treatments on the polysaccharide and proanthocyanidin composition of red varietal wines. Vinifications were carried out using the red grapes *Vitis vinifera* cv. Merlot, Tempranillo, Graciano and Garnacha. Wines were racked after malolactic fermentation. The corresponding untreated wines were employed as control (C) in each monovarietal wine. Then, 300 litres of wines (located in three stainless-steel tanks of 100 L) were clarified with 10 egg albumin/HL (EA). After wine fining, one filtration treatment was performed. Wines were filtered over a plate filter (CF). Others 300 litres (located in three stainless-steel tanks of 100 L) were subjected to cross-flow microfiltration (CFMF). Samples for analysis were taken from control, clarified and filtered wines. Wine polysaccharides were recovered by precipitation [1] and the monosaccharide composition of the total soluble polysaccharides was determined by GC-MS [1]. For analyzing proanthocyanidins, wine samples were fractionated [2] and phloroglucinol adducts were analyzed by reversed-phase HPLC [3]. Stepwise discriminant analysis (SDA) were carried out to determine the compounds analyzed most useful for differentiating wines according to treatment and grape variety. In general, EA and CF treatments affect polysaccharide and proanthocyanidin content of wines. CFMF had significant effect on the decrease of polysaccharides rich in arabinose and galactose, mannoproteins and total proanthocyanidin content in all wines. SDA allowed to discriminate wines according to the treatment applied and the grape variety used.

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