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# ABSTRACT BOOK

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## TARTRATE STABILISATION OF ROSÉ WINE USING ION EXCHANGE RESINS

Rita Borges<sup>1</sup>, Conceição Fernandes<sup>1</sup>, Celeste Marques<sup>2</sup>, Carlos Matos<sup>3</sup>, Alice Vilela<sup>3</sup>, Fernando M. Nunes<sup>3</sup>, Fernanda Cosme<sup>3</sup>

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### Abstract

Tartaric stabilisation is essential to satisfy the quality criteria of wines. To prevent wine tartaric precipitates, potassium hydrogen tartrate (KHT) and calcium tartrate (CaT), several techniques can be used. The addition of oenological products, such as metatartaric acid and carboxymetilcelulose (CMC) as well as the use of ion exchange resins are acceptable techniques for tartaric stabilization by the OIV (OIV, 2016). The aim of this study was to evaluate the ion exchange resins effect on wine tartaric stabilisation efficiency and wine quality, compared to the effect of the addition of different oenological additives. A Rosé wine from 2015 vintage, Douro region, was used for the experiment. Ion exchange resin *versus* CMC's, with different structural features (Guise et al. 2014), and metatartaric acid were tested concerning wine tartaric stabilisation, physicochemical and sensory characteristics. As expected, all treatments stabilised the Rosé wine. After treatment with ion exchange resins, Rosé wine pH was lower and consequently wine acidity increased. Also, mineral composition (magnesium, calcium, potassium and sodium) decreased after treatment with ion exchange resins. In general, in wines treated with ion exchange resins, there was a decrease in polymeric pigments and colour intensity. Sensory analyses of this wine also showed, for the visual descriptor, *colour intensity* and *limpidity* attributes, that they were lesser and higher scored, respectively (Figure 1). The results from this preliminary study suggest that ion exchange resins could be an effective alternative for Rosé wine tartaric stabilization.

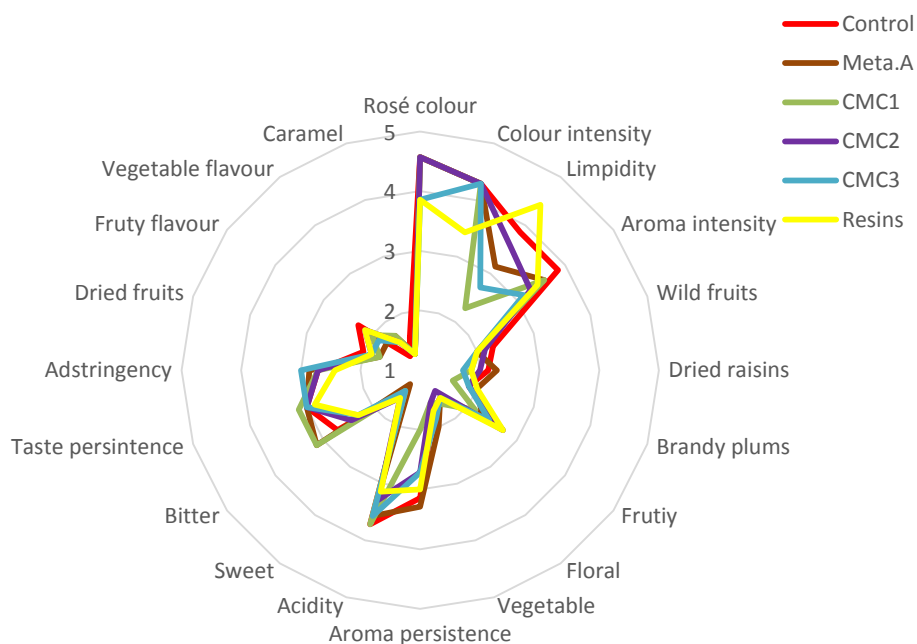


Figure 1. Sensory profile of treated (control) and untreated Rosé wines.

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