

Determination of metals content in wine samples by direct ICP-MS analysis

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Metal content of wine varies from ng/L to mg/L depending on the element. They should be determined and controlled in wines . Indeed, on one hand some of them are of toxicological concern as Lead, Cadmium and Arsenic which are regulated by OIV and by European regulation (CE 1881/2006) ; on the other hand some others can present technological risks as Iron and Copper that may cause precipitations in wines. A new method for metal content in wines was developed by ICP-MS after on-line dilution of the samples. The method was then validated according to the accuracy profile approach. The aim of this study is to characterize the content of Lithium, Sodium, Magnesium, potassium, Calcium, Titanium, Chromium, Manganese, Iron, Cobalt, Nickel, Copper, Zinc, Arsenic, Selenium, Strontium, Molybdenum, Silver, Cadmium, Tin, Antimony, Baryum, Mercury and Lead in a sampling of wines from South of France.

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