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Classification of wines according to their production regions with the contained trace elements using laser-induced breakdown spectroscopy

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Abstract

Laser-induced breakdown spectroscopy (LIBS) has been applied to classify French wines according to their production regions. The use of the surface-assisted (or surface-enhanced) sample preparation method enabled a sub-ppm limit of detection (LOD), which led to the detection and identification of at least 22 metal and nonmetal elements in a typical wine sample including majors, minors and traces. An ensemble of 29 bottles of French wines,

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