

Modern Methods for Identification of Synthetic Dyes used in Counterfeit Wines

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SUMMARY

This paper presents partial results obtained in Sectoral Plan Project 314/2006, funded by Agricultural Ministry- MARD. The quantitative method HPLC (High Performance Liquid Chromatography), is powerful and fast. Because of its resolution, sensitivity and accuracy, in recent years has become the preferred method for quantitative analysis of synthetic dyes in wines. For testing the efficiency of this method used in identifying artificial dyes were used contaminated typical wine samples from the research zones with the most known artificial colorings used in counterfeit wine. At ICSI Rm Vâlcea HPLC method was adapted for simultaneous determination of five synthetic food dyes: Azorubin, Amaranth, Ponceau 4R, Red Allure AC, Erythrosin, which can be used to detect synthetic additives in red wines in order to correct color deficiencies and to achieve red wines from white wines. The figure below is reproduced chromatogram from a sample of Italian Riesling from SCDVV Murfatlar contaminated with dye red-allure AC.

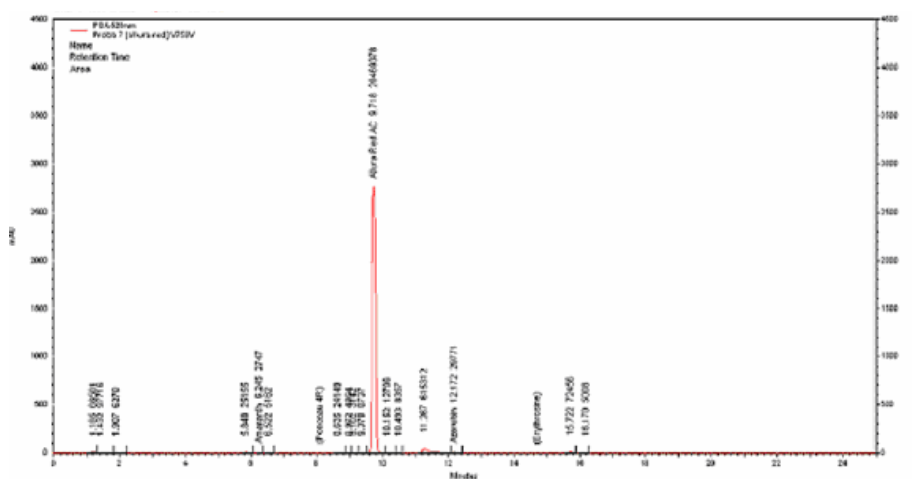


Fig. 1. Chromatogram of contaminated sample by Allure Red AC

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