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## **INFLUENCE OF NANOPOROUS MATERIALS ON THE CHEMICAL COMPOSITION OF MERLOT AND CABERNET SAUVIGNON WINES**

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### **Abstract**

The variation of the content of 12 phenolic compounds from 5 months aged Cabernet Sauvignon and Merlot wine samples treated with siliceous and aluminosiliceous porous materials was analysed through a HPLC method. The standard physical-chemical analyses (alcoholic concentration, total acidity, volatile acidity, relative density, reductive sugars, total dry extract, non-reductive extract, free SO<sub>2</sub>, total SO<sub>2</sub>, pH) were registered. The used nanomaterials: SBA-15, Al-MCM-41, KIT-6 were synthesized in the laboratory and were structurally characterized through the BET and SEM methods. The obtained results are in accordance to literature findings. The experimental results are proof that the maturation of wine, specifically Cabernet Sauvignon and Merlot, in the presence of porous materials modifies the physical-chemical composition as well as the phenolic content of wines.

*Key words:* adsorption, nanomaterial, phenolic compound, wine

*Received: November, 2014; Revised final: March, 2015; Accepted: March, 2015*

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