

POLIPHENOLS SPECTROPHOTOMETRIC DETERMINATION IN WINE BY FLOW INJECTION ANALYSIS

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The polyphenols are widely distributed in most of the higher plants, presenting a series of characteristics of their presence in the fruits and in their derivated products. In wines, the interferences in the organoleptics characteristic as intensity and tonality of the color, astringency and flavor, are attributed to the phenolic compounds [1]. Due to their important characteristics, the determination of the polyphenols is one of the main parameters in the enology. Therefore, the development of a simple and reliable analytical procedure, that presents stability, reproducibility, low costs and easiness its use is required. In this context, the flow injection system has been presenting as an alternative [2].

In the present work a flow injection system, with spectrophotometric detection, was developed to the polyphenols determination in samples of wine. The manifold was made with perspex tubes of 0.8 mm i.d. The system also used a peristaltic pump with tygon tubes of different internal diameter, a manual home made injector-commutator, a stripchart register and a spectrophotometer, with wave length selected in 760 nm, as detector.

Folin Denis's reagent was used as chromogenic agent and the catechol as standard solution. The samples were diluted in the proportion of 1:100, in order to the original coloration didn't interfere in the absorbance value. The analytical curve was linear up to 100 mg L⁻¹. This system allows the analysis of 72 samples h⁻¹ with good reproducibility and small steps of sample treatment. When compared to the official method [3], samples of white and red wines, determined by the proposed and official methodology, presented correlation highly significant ($R^2 = 0.999$).

[FAPESP, EMBRAPA]

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