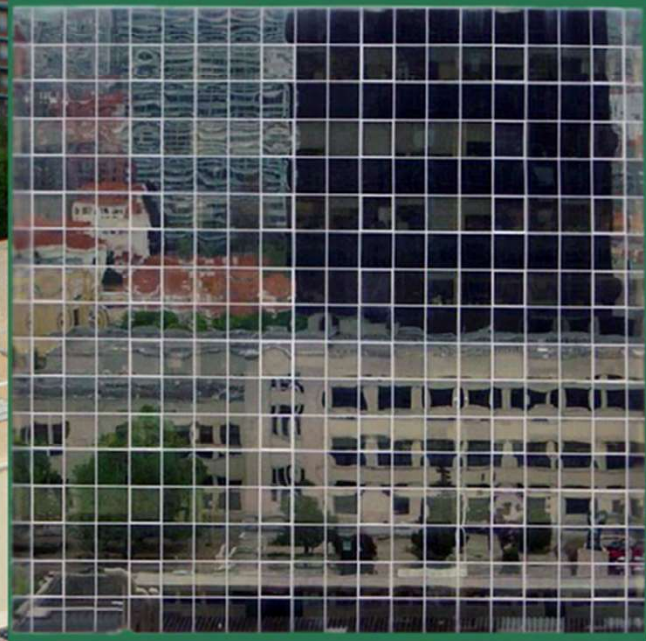


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P-33**FLOW-BASED STRATEGIES FOR THE DETERMINATION OF TOTAL ACIDITY IN WINE**

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The acidic compounds present in wines play an important role in keeping the wine microbiologically and chemically stable. These have a great effect on the colour, taste and stability of the final product. As a result, total acidity is an important index of wine character and quality.

The determination of total acidity in wine is a routine procedure described by the *Organisation Internationale de la Vigne et du Vin*. It is defined as the sum of its titratable acidities when titrated to a pH value of 7 against a standard alkaline solution, by potentiometric or visual titration with bromothymol blue (BTB) as indicator. The described method is time consuming, requiring skilled labour. An automation of the analytical methodology can be an interesting alternative to overcome these disadvantages. Flow-based systems have gained increased importance on the automation of the steps required by the official methods for quantification of several analytes.

In this context, two different strategies of flow systems, flow injection analysis (FIA) and sequential injection analysis (SIA), were developed for the automation of this methodology. In the developed methods, the reagent solution was composed by a mixture of OH^- and the pH indicator, BTB. In the presence of the sample, a change on the colour of the carrier solution is achieved and quantified by spectrophotometry. It was possible to establish a linear range up to 0.16 g/L expressed as tartaric acid.

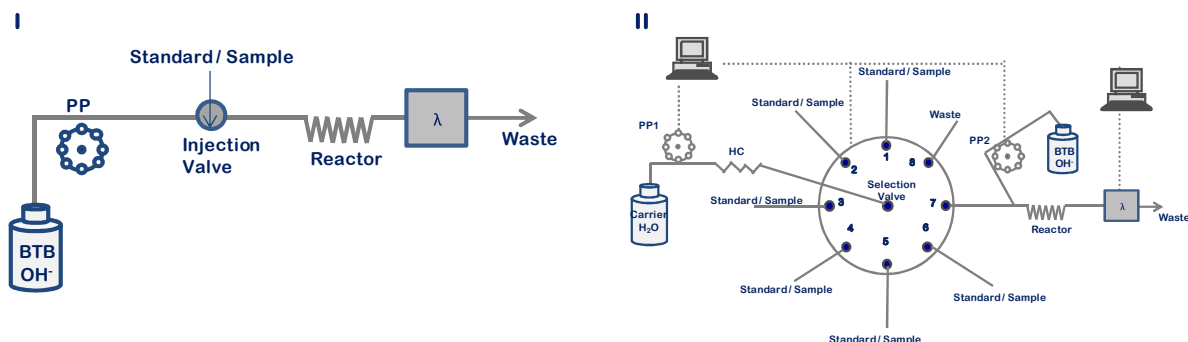


Figure 1: Configuration of the developed manifolds for the quantification of total acidity in wine by flow injection analysis (I) and sequential injection analysis (II).

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