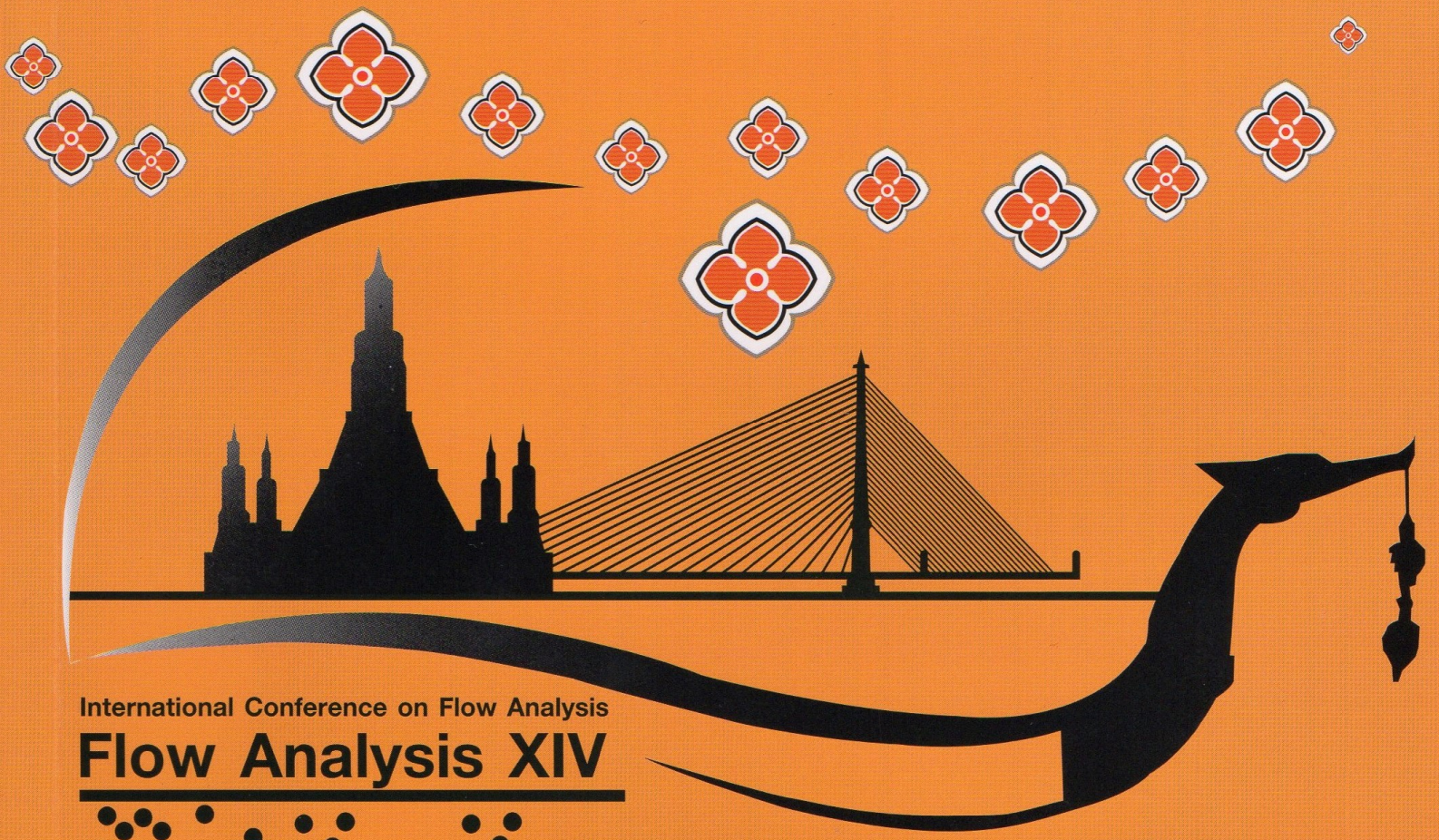
Abstract book



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Flow based systems coupled to separation techniques applied to wine samples

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Abstract

Wine is a fermented product consumed in a large scale all over the world, therefore has a large impact both in economic terms and in terms of food safety. The analytical control of the final product is therefore of high importance. Even though it is not a simple task, since the chemical composition of wine is very variable and complex; besides the main organic compounds as ethanol, sugars, organic acids, polyphenols and proteins, wine also contains several inorganic species dissolved [1-3]. Therefore, there is always the need for some sample pre-treatment prior to analysis.
Flow analysis has started as an automation tool for wet chemical assays. These methods are well known for their efficiency in sample manipulation, therefore leading to a significant progress in terms of reliability and robustness of the methods. However, one limitation of these systems is that they are non-separative methods, nevertheless this limitation can be overcome by easily coupling other units responsible for the separation process, namely membrane-based, or extraction devices. This possibility is an important step when dealing with complex matrices, such is wine samples.
The present work summarizes some methodologies that were developed using flow-based systems coupling to separation devices applied to wine analysis.

Keywords: FIA, SIA, solid phase extraction, low pressure chromatography, membrane separation

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