

COMPARISON OF CE AND HPLC METHODS FOR THE ANALYSIS OF FLAVONOIDS

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Flavonoids are a large group of compounds naturally occurring in several plants and fruits, as glycosides or, less frequently, as their aglycones. These phenolic compounds are important components of the human diet and exhibit a wide range of biological activities including antioxidant properties. Due to these characteristics, in the last years the interest on studying these compounds has been increasing and they have been included in some pharmaceutical formulations [1,2].

In order to study the kinetics and metabolism of flavonoids, it is necessary to develop methodologies that allow the simultaneous quantification of the glycosides and their aglycones. Although several HPLC methods have been published and validated [3], little progress has been made in the field of capillary electrophoresis (CE). This presentation describes the preliminary work in the development of a CE analytical method for the determination of some flavonoid glycosides as well as

their aglycones and its comparison with HPLC, using traditional and monolithic columns.

The methods were applied for quantification of the test compounds in fruit juices. Validation parameters are reported.

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[2] P. Hodek, P. Trefil, M. Stiborová, *Chemico-Biological Interactions*, 139 (2002) 1-21

[3] F. I. Kanaze, C. Gabrieli, E. Kokkalou, M. Georganakos, I. Niopas, *J. Pharm. Biomed. Anal.* 33 (2003) 243-249