

Nucleotides separation by capillary electrophoresis techniques

Camelia DRAGHICI^{a*} and Gheorghe COMAN^b

^a *Chemistry Department, Transilvania University of Brasov, Brasov, 500019, Romania*

^b *Preclinic Medicine Department, Transilvania University of Brasov, Brasov, 500091, Romania*

Abstract: It is already known that nucleotides are negatively charged molecules responsible on the transfer of the energy in the pathways; therefore the concentration of the nucleotides is very important for different biological studies. Many articles were published on nucleotides separation and detection in different biological media by specific techniques, applicable for ionic substances.

This paper presents an overview on the interest showed for the nucleotides separation, identification and quantification, studies carried out in standard solutions or in different biological samples, with emphasis on the capillary electrophoresis (CE) techniques. Almost all CE methods and techniques showed selectivity for the nucleotides separation, but the most frequently used was capillary zone electrophoresis (CZE), with or without additives in the background electrolyte (BGE), with both direct and reversed electroosmotic flow (RF-CZE).

Keywords: nucleotides separation, nicotinamide adenine dinucleotides, capillary electrophoresis techniques.
