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Journal of Chromatography A, 875 (2000) 1

JOURNAL OF
CHROMATOGRAPHY A

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Foreword

Among the various separation techniques developed over the years, gas chromatography (GC) and high-performance liquid chromatography (HPLC) have become the most widely accepted. Next to these techniques, because of its high-resolution capability, capillary electrophoresis (CE) has developed into an important separation technique during the 20 years that have passed since the first publications on capillary zone electrophoresis (CZE) (Jorgenson, 1981) or micellar electrokinetic chromatography (MEKC) (Terabe, 1984). Separations of DNA (including sequence analysis), small molecules (ions and synthetic drugs), enantiomers etc. have been successfully achieved by using CE techniques and today, in practical situations, some of these separations are performed routinely by this method.

Under these circumstances, CE methodology has been discussed in the Pharmacopoeia Discussion Group (PDG), which consists of experts from the USA, Europe and Japan, as a method for general tests which should be harmonized and included in each pharmacopoeia (i.e., USP, EP and JP). An official draft describing CE has now reached stage 4, which is the official inquiry stage. CE assay methods have already been proposed as the official testing methods (pharmacopoeia) for two drugs. One of these two methods includes the enantiomeric determination employing cyclodextrin as an additive to

the buffer in CZE. Enantiomer separation is obviously a promising area for the application of CE.

The *Journal of Chromatography A* recognizes the importance of enantiomer separations by CE and already published papers on the topic in previous volumes which were devoted to chiral separations (see Vol. 666, 1994), CE of drugs (see Vol. 735, 1996) and selectivity and optimization in CE (see Vol. 792, 1997). However, in these volumes, CE enantiomer separation was treated as part of an issue on a broader topic. Therefore, in the present volume, we have attempted to provide in a single publication more general reviews and recent research articles on enantiomer separations by CE, which emphasize the practical aspects of the technique. This thematic volume is organized in two parts. The first consists of a series of review articles that cover the topics from different viewpoints, whereas the second part consists of a number of original contributions.

We are hoping that this special volume encompasses a wide variety of CE enantiomer separations and can serve as a source of rapid information for those who would like to use CE in solving particular problems.

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February 2000