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**VABILO NA PREDAVANJE
V OKVIRU DOKTORSKEGA ŠTUDIJA
KEMIJSKE ZNANOSTI**

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z naslovom:

***Application of the capillary electrophoresis
in forensic chemistry***

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Vljudno vabljeni!

Abstract:

Keywords: forensic chemistry, capillary electrophoresis, criminalistics, toxicology

For nearly 40 years, the capillary electrophoresis (CE) has been found as an interesting, efficient and cost-effective tool for the investigation and separation of an enormous number of substances. Since its very beginning, the applications of CE in forensic analysis have become widely used by many forensic experts and researchers over the world [1]. Presently, the fundamental capabilities of CE, so important in case of criminal investigation, such as e.g. its high separation power, low-cost chiral analysis, or hyphenation with the mass spectrometry are quite commonly used, while other remain to be further explored, particularly those involving on-site analysis at the crime scene (for instance, with the use of chip electrophoresis or portable CE instruments).

In this presentation, the use of capillary electrophoresis in forensic analysis is reviewed, focusing on achievements accomplished at the Laboratory for Forensic Chemistry at Jagiellonian University in Kraków. Particularly, the applications of CE in the forensic toxicology, the questioned documents examination, and the investigation of psychoactive or toxic ornamental plants have been elaborated [2,3]. Additionally, the use of CE-based techniques for investigation of physicochemical parameters of designer drugs has been also pointed out as the way to learn more about those dangerous substances [4]. Finally, some potential development of CE techniques and methods with their application in forensic analysis has been also proposed and discussed.

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