Mini Review

Application of Capillary Electrophoresis for Ephedrine and Pseudoephedrine Detection: a Review

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Commonly utilized for drug discovery and pharmaceutical production, ephedrine (EP) and pseudoephedrine (PEP) are forms of epinephrine, and novel and current separation and characterization techniques are essential for determining the presence of these compounds. CE methods used to analyse natural products published during 2000–2018 were covered in this review. The major process advances over the review period focused on derivatization, chiral analysis, detection methods, stacking or online concentration of samples, and sample preparation (mainly using extraction methods). Herbal goods, plants, water, and biological samples were the sample matrices analysed. Developments have also taken place in the fields of quality control, toxicology evaluation and testing for enzyme inhibitors. This review also provides a short description of CE theory and perspectives on CE's potential use for EP and PEP detection.

Keywords: Capillary electrophoresis (CE); Ephedrine; Pseudoephedrine; UV detection; Laser-induced fluorescence detection

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