

Article

ENANTIOMERIC SEPARATION OF SYNTHETIC CATHINONES BY CAPILLARY ELECTROPHORESIS WITH IONIC LIQUID AND CYCLODEXTRIN BUFFER CO-ADDITIVES

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Supplementary Information:

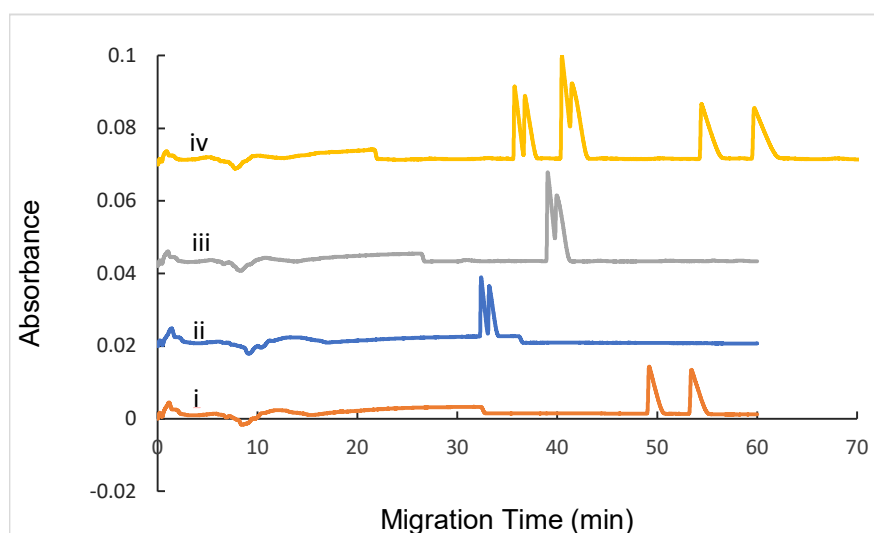


Figure S1. Electropherograms of pentylone (i, orange trace), methylone (ii, blue trace), 4-MEC (iii, gray trace), and mixture of all three 2° amine synthetic cathinones (iv, yellow trace, migration order: methylone, 4-MEC, pentylone), employing higher TBAC concentration (100 mM TBAC) with 12 mM β -CD co-additives in 50 mM ammonium formate buffer (pH 3.1). A Beckman P/ACE MDQ CE was used with an applied voltage of 20 kV. Capillary inner diameter was 50 μ m with effective and total lengths of 50 cm and 60 cm, respectively. The injection volume was 5 nL (5 sec at 0.5 psi). Electropherograms are offset vertically for clarity. Note: The migration times of tertiary synthetic cathinones (MDPBP, MDPV, and naphyrone) exceeded 120 minutes in this high TBAC concentration buffer system, and hence are not included here.

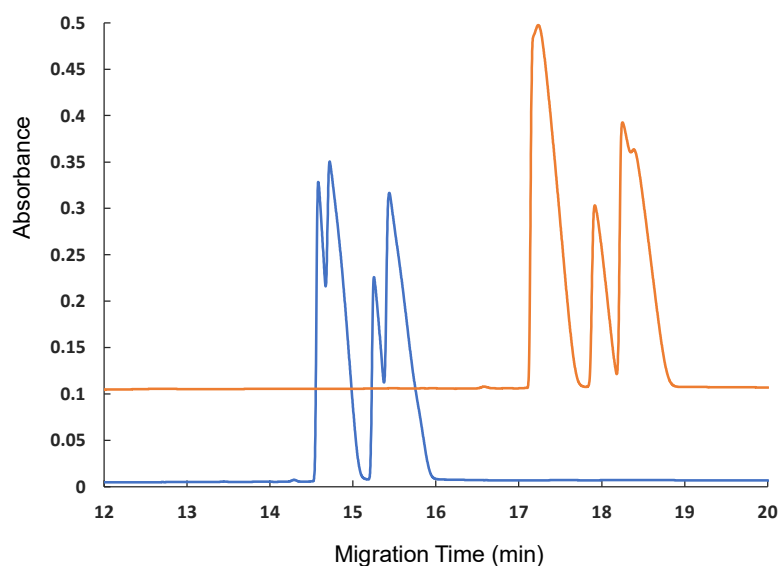


Figure S2. Electropherograms of a mixture of six synthetic cathinones (MDPV, MDPBP, naphyrone, pentylone, methylone, and 4-MEC) at 1 mg/mL each, employing a separation buffer consisting of 150 mM phosphate (pH 6.1) with 1% acetonitrile as modifier (lower, blue trace), or with 10 mM phytic acid as modifier (upper, orange trace). A Beckman P/ACE MDQ CE was used with an applied voltage of 20 kV and a capillary of inner diameter 50 μ m and effective and total lengths of 50 cm and 60 cm, respectively. The injection volume was 5 nL (5 sec at 0.5 psi). Electropherograms are offset vertically for clarity.