

Supplementary material – *Analytical Methods*

Electroanalytical performance of a β -cyclodextrin and ionic liquid modified carbon paste electrode for the determination of verapamil in urine and pharmaceutical formulation

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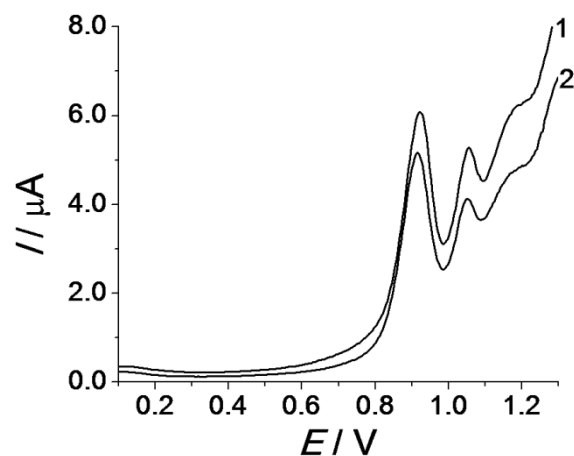


Fig. S1 SW voltammograms of $8.42 \mu\text{g mL}^{-1}$ VER at pH 5.0 using [EMIM][NTf₂]-CPE without heating (1) and after heating (2) of electrode material. Amount of electrode modifier: 4.3 wt%.

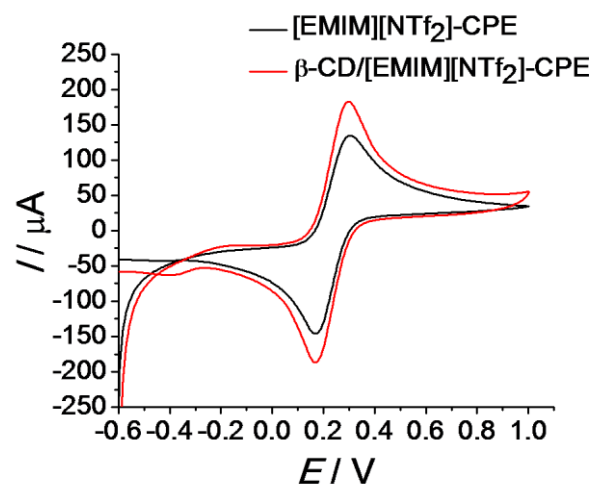


Fig. S2 Cyclic voltammogram of 0.01 mol L^{-1} [Fe(CN)₆]^{3-/4-} solution containing 0.5 mol L^{-1} Na₂SO₄ at [EMIM][NTf₂]-CPE and β-CD/[EMIM][NTf₂]-CPE. Scan rate: 100 mV/s.

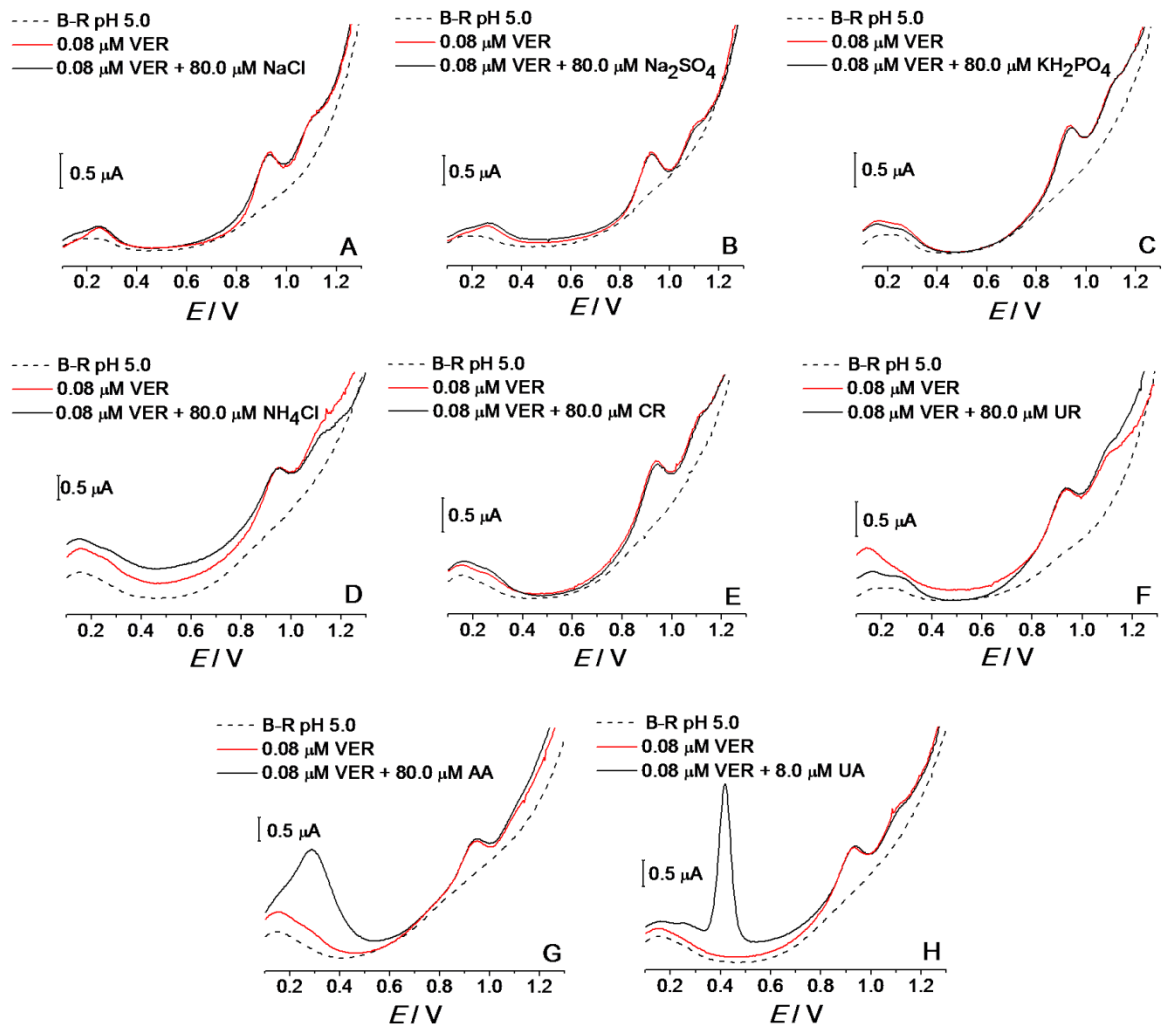


Fig. S3 Interference study: SW-AdSVs of VER recorded in B-R buffer *pH* 5.0 at β -CD/[EMIM][NTf₂]-CPE in the absence and presence of NaCl (A), Na₂SO₄ (B), KH₂PO₄ (C), NH₄Cl (D), creatinine – CR (E), urea – UR (F), ascorbic acid – AA (G), uric acid – UA (H).

Table S1 The influence of some possible interfering substances on the determination of 0.08 $\mu\text{mol L}^{-1}$ VER in B-R buffer *pH* 5.0 at β -CD/[EMIM][NTf₂]-CPE

Interferences	Interference/VER molar ratio	Effect on VER peak intensity (%)
Na ⁺	1000	<0.2
K ⁺	1000	<0.9
NH ₄ ⁺	1000	<0.2
SO ₄ ²⁻	1000	<2.8
PO ₄ ³⁻	1000	<0.9
Cl ⁻	1000	<0.2
CR	1000	<0.4
UR	1000	<0.9
AA	1000	<1.2
UA	100	<1.6