Electronic Supplementary Information:

Facile one-pot preparation of Pd–Au/PEDOT/graphene nanocomposites and their high electrochemical sensing performance for caffeic acid detection

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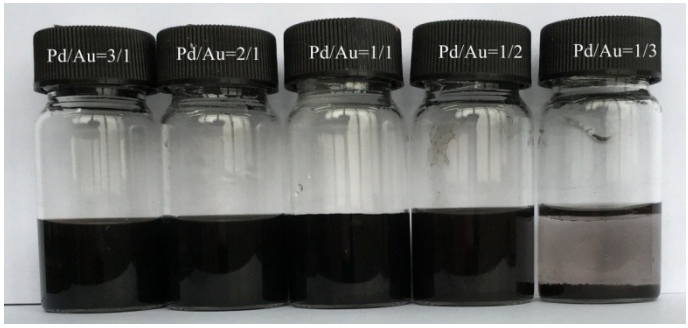

Fig. S1. Digital photo of the aqueous dispersions of Pd–Au/PEDOT/rGO with the precursor molar ratios of H_2PdCl_4 to $HAuCl_4$ are 3:1, 2:1, 1:1, 1:2 and 1:3 after two weeks of static placement.

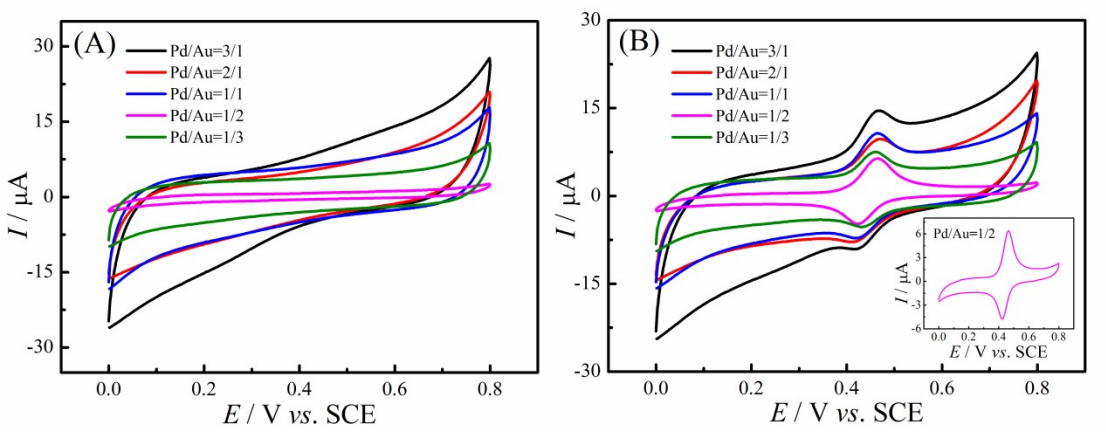

Fig. S2. CVs of the Pd–Au/PEDOT/rGO/GCE with Pd/Au molar ratio of 3:1, 2:1, 1:1, 1:2 and 1:3 obtained in (A) the pure BR buffer solution (pH = 3.0) and (B) BR buffer solution (pH = 3.0) containing 50 μM CA at scan rate of 50 mV s^{-1}.

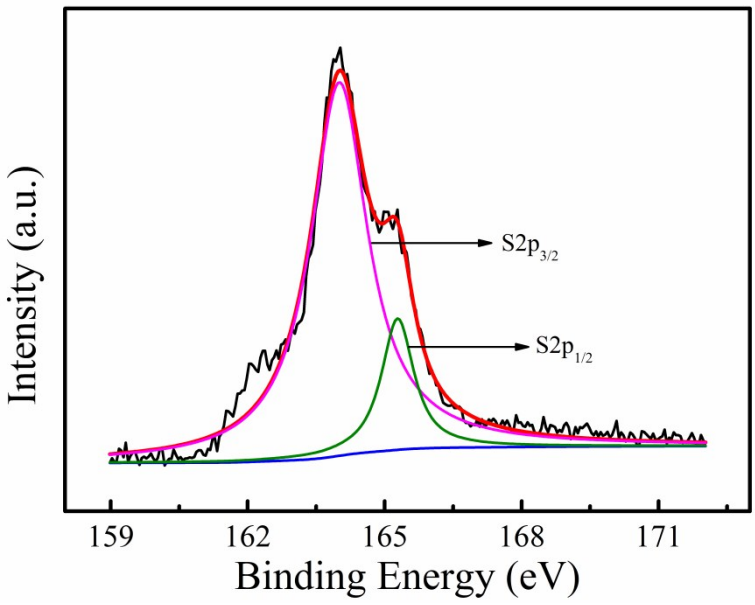

Fig. S3. High resolution S2p XPS spectrum of Pd–Au/PEDOT/rGO.

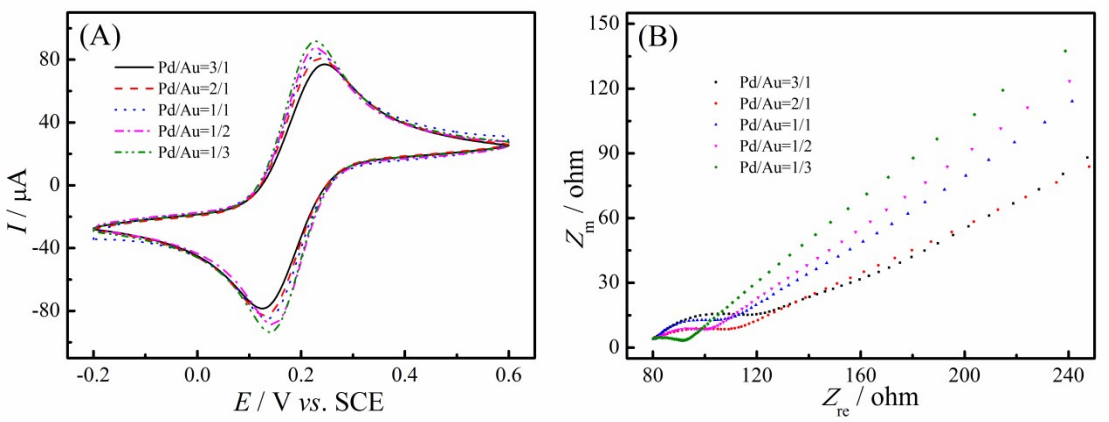

Fig. S4. (A) CVs and (B) Nyquist plots of the Pd–Au/PEDOT/rGO/GCE with Pd/Au molar ratio of 3:1, 2:1, 1:1, 1:2 and 1:3 recorded in 5.0 mM $[Fe(CN)_6]^{3-/4-}$ (1:1) solution containing 0.1 M KCl, scan rate: 50 mV s^{-1}, frequency region from 0.1–100 KHz.

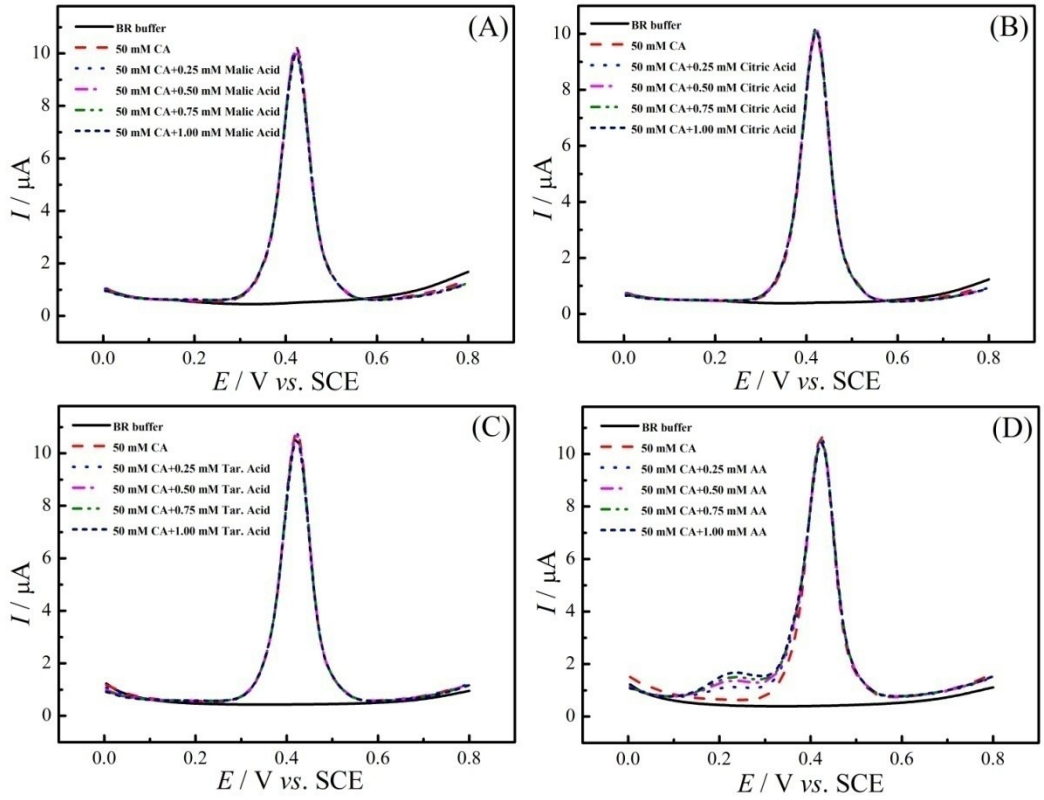

Fig. S5. DPVs of Pd–Au/PEDOT/rGO/GCE obtained in BR buffer solution (pH = 3.0) containing 50μM CA in the presence of different interfering species: (A) malic acid, (B) citric acid, (C) tartaric acid and (D) ascorbic acid at various concentrations.

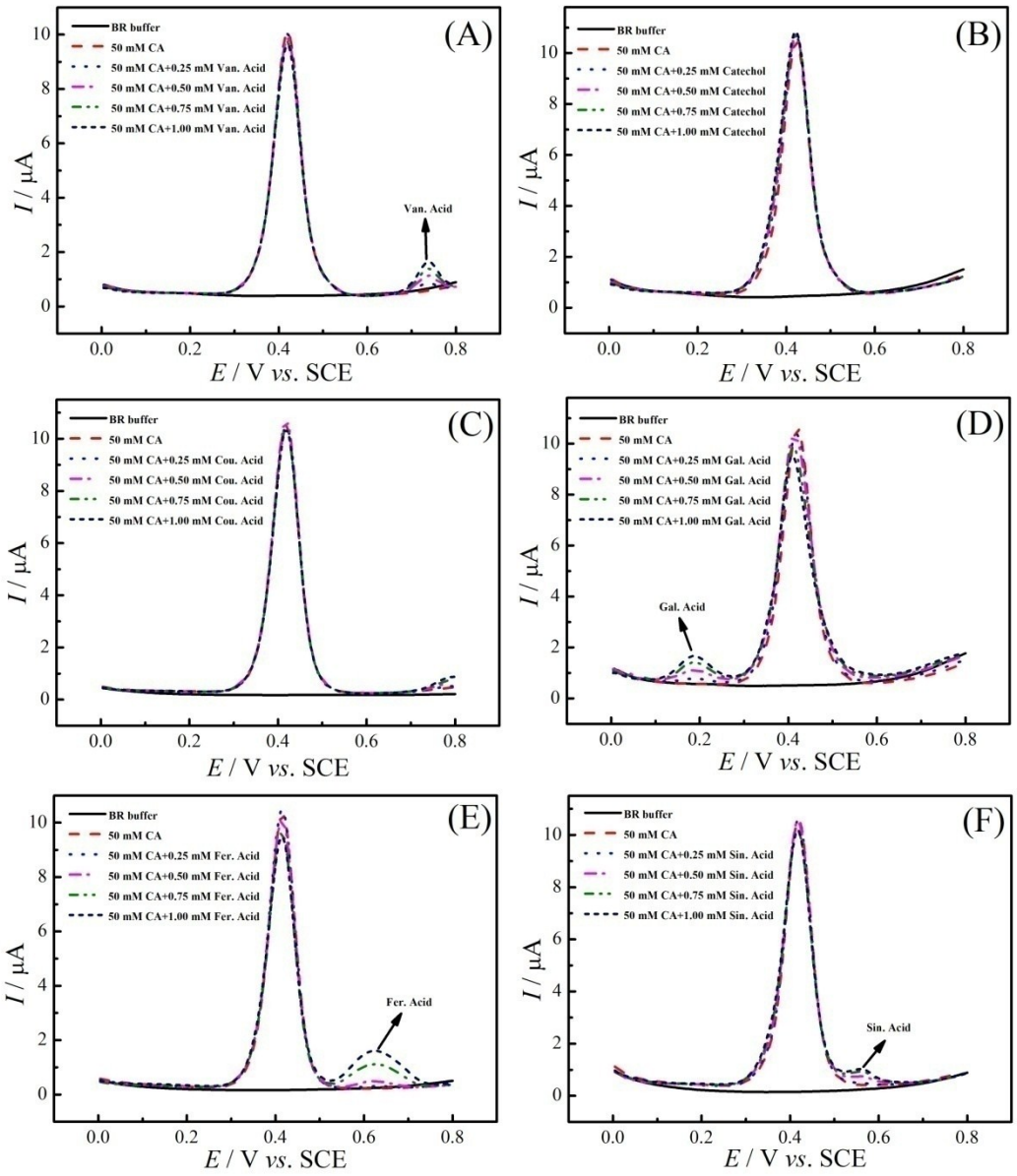

Fig. S6. DPVs of Pd–Au/PEDOT/rGO/GCE obtained in BR buffer solution (pH = 3.0) containing 50 μM CA in the presence of different interfering species: (A) vanillic acid, (B) catechol, (C) p-coumaric acid, (D) gallic acid, (E) ferulic acid and (F) sinapic acid at various concentrations.