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Electronic Supporting Information

De-bundled single-walled carbon nanotube-modified sensors for

simultaneous differential pulse voltammetric determination of ascorbic

acid, dopamine, and uric acid

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Fig. S1 CVs of (A) bare GCE and (B) SPES–SWCNTs/GCE in 1 mM [Ru(NH₃)₆]Cl₃ prepared in 0.1 M KCl at different scan rates, (C) the corresponding anodic peak current *vs.* square root of scan rates plot.



Fig. S2 DPVs of (A) different ratio of SPES and SWCNTs modified GCE in 1.0 mM AA, 100 μ M DA and 100 μ M UA prepared in 0.1 M PBS (pH 7.0). (B) The corresponding i_{pa} plot and (C) ΔE_{pa} plot.



Fig. S3 DPVs of (A) SPES–SWCNTs/GCE in 0.1 M PBS with different pH values containing 1.0 mM AA, 100 μ M DA and 100 μ M UA. (B) The corresponding plots of i_{pa} vs. pH, (C) E_{pa} vs. pH and (D) ΔE_{pa} vs. pH.



Fig. S4 DPVs of SPES–SWCNTs/GCE in (A) 0.2 mM to 1.6 mM AA in the presence of 10 μ M DA and 25 μ M UA, (B) 0.5 μ M to 50 μ M DA in the presence of 2.0 mM AA and 25 μ M UA, and (C) 5.0 μ M to 60 μ M UA in the presence of 2.0 mM AA and 10 μ M DA prepared in 0.1 M PBS (pH 7.0).



Fig. S5 Interference study of (A) SPES–SWCNTs/GCE in 0.4 mM AA, 5.0 μ M DA and 10 μ M UA in addition of some interfering compounds and ions: glucose, KCl, NaCl, urea, MgCl₂, CaCl₂ and NaNO₃ (each concentration = 0.4 mM). Reproducibility of (B) SPES–SWCNTs/GCE in 0.8 mM AA, 20 μ M DA and 40 μ M UA.