Electronic Supplementary Information for the Paper

Differential pulse adsorptive stripping voltammetric determination of nanomolar levels of atorvastatin calcium in pharmaceutical and biological samples using a vertically aligned carbon nanotubes/graphene oxide electrode

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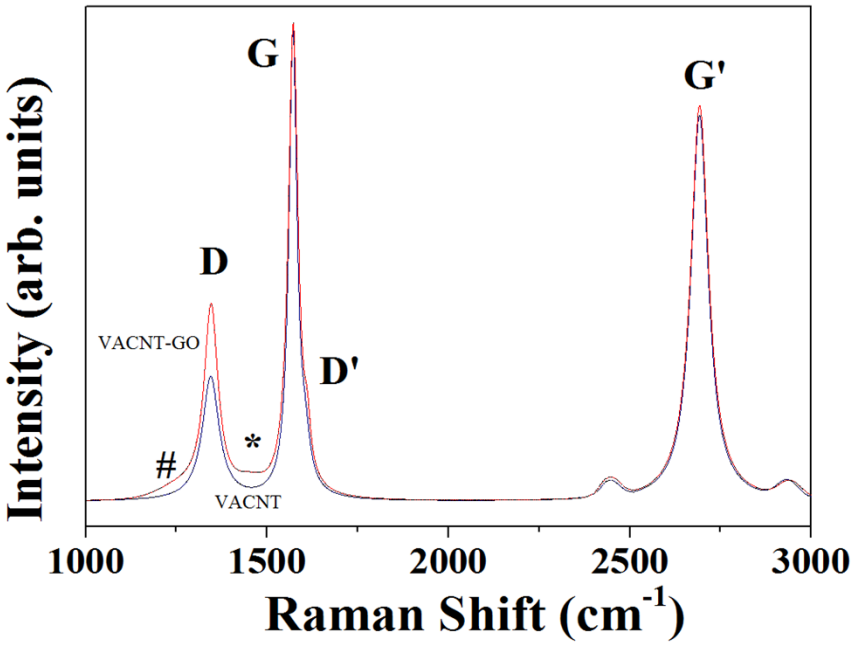

Figure S1 First and second-order Raman spectra of VACNT and VACNT-GO films. The (*) band in the Raman spectrum is probably a point on phonon dispersion curve and (#) band is maybe correlated with the polar groups attached on CNT walls. The overall experimental spectra have been deconvoluted and fitted to constituent spectral lines (not shown), as detailed in the text.

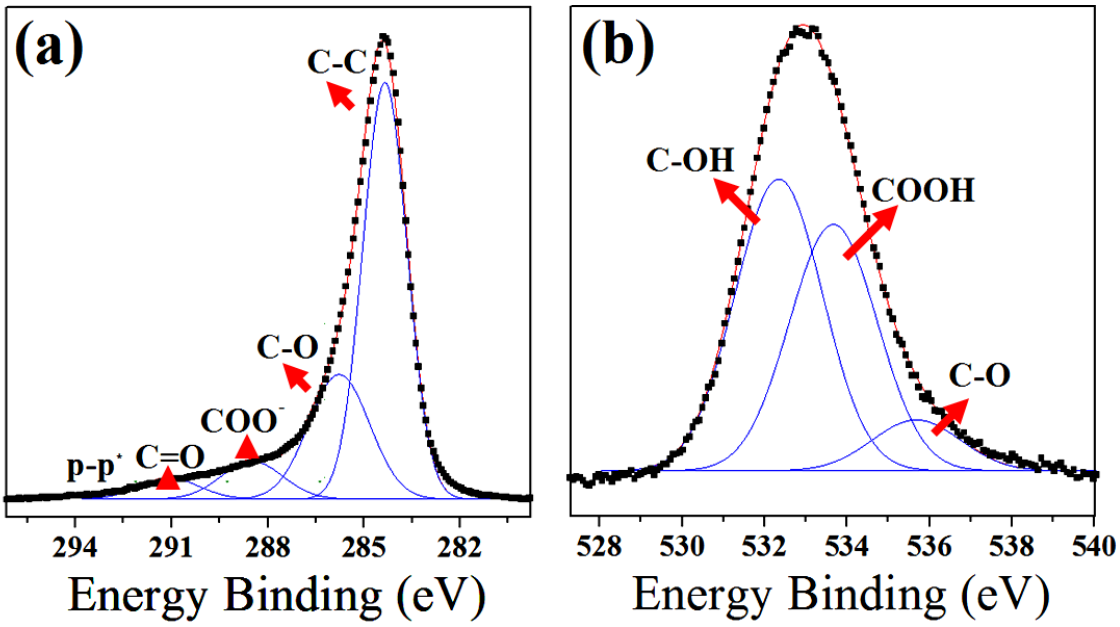

Figure S2 XPS spectra of the carbon nanotube/graphene oxide nanocomposite: (a) and (b) show the deconvolution of the regions containing C and O, respectively. Ref needed for where these peaks are.

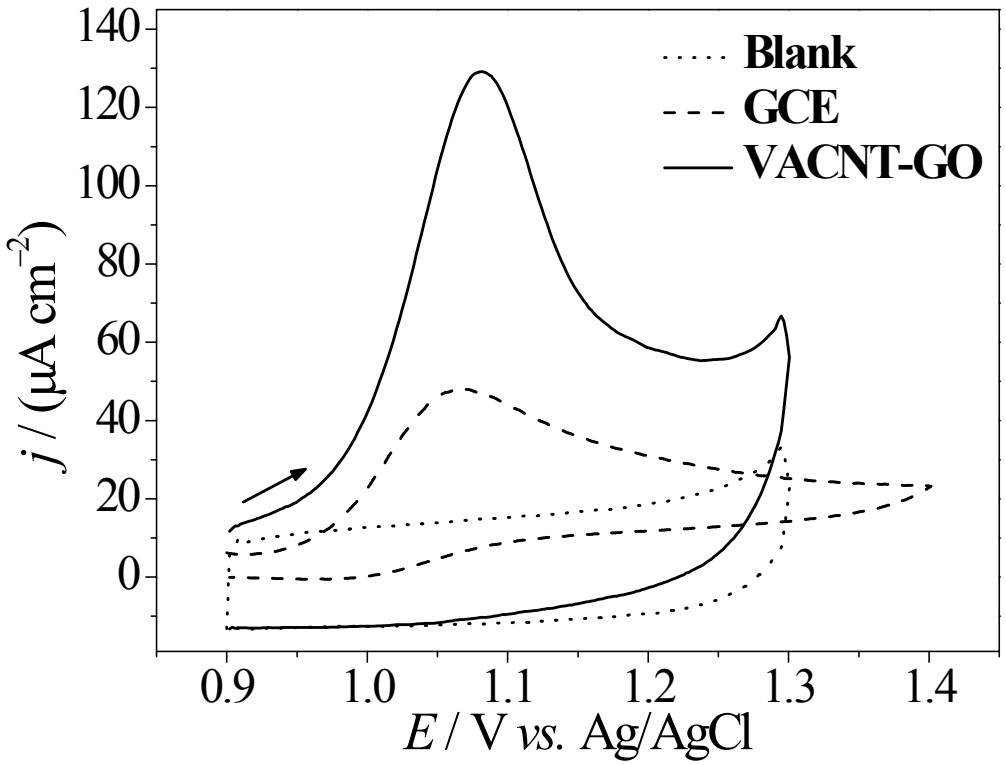

Figure S3 Cyclic voltammograms obtained using the VACNT-GO electrode and a Glassy Carbon Electrode (GCE) in 0.2 mol L^{-1} buffer phosphate (pH_{cond} 2.0, 20% (v/v) methanol) containing 5.0×10^{-5} mol L^{-1}ATOR (VACNT-GO) or 1.0×10^{-4} mol L^{-1}ATOR (GCE).

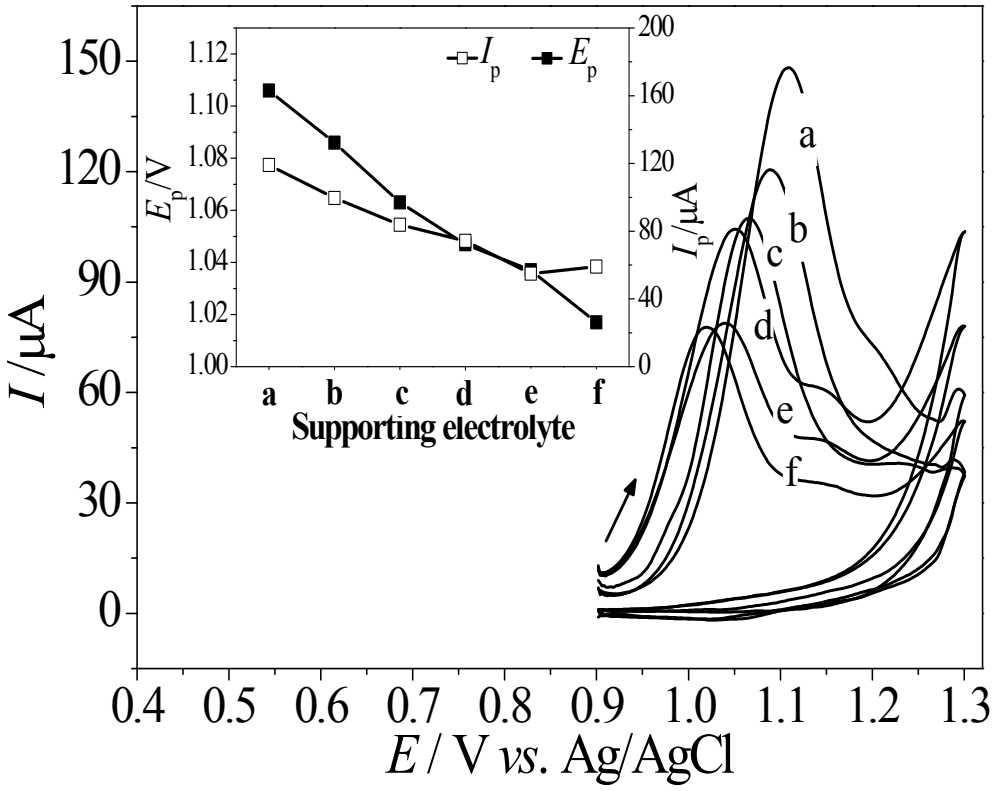

Figure S4 Cyclic voltammograms obtained for a 5.0×10^{-5} mol L^{-1}ATOR solution in different supporting electrolytes contained 20% (v/v) methanol: (a) 0.2 mol L^{-1} buffer phosphate (pH_{cond} 4.5); (b) 0.1 mol L^{-1} H_2SO_4; (c) 0.5 mol L^{-1} H_2SO_4; (d) 0.2 mol L^{-1} buffer acetate (pH_{cond} 4.5); (e) 0.04 mol L^{-1} Britton-Robinson (BR) buffer (pH_{cond} 4.5) and (f) 0.1 mol L^{-1} KCl using the VACNT-GO electrode. Inset E_p and I_p *vs.* supporting electrolyte. $v = 50$ mV s^{-1}.

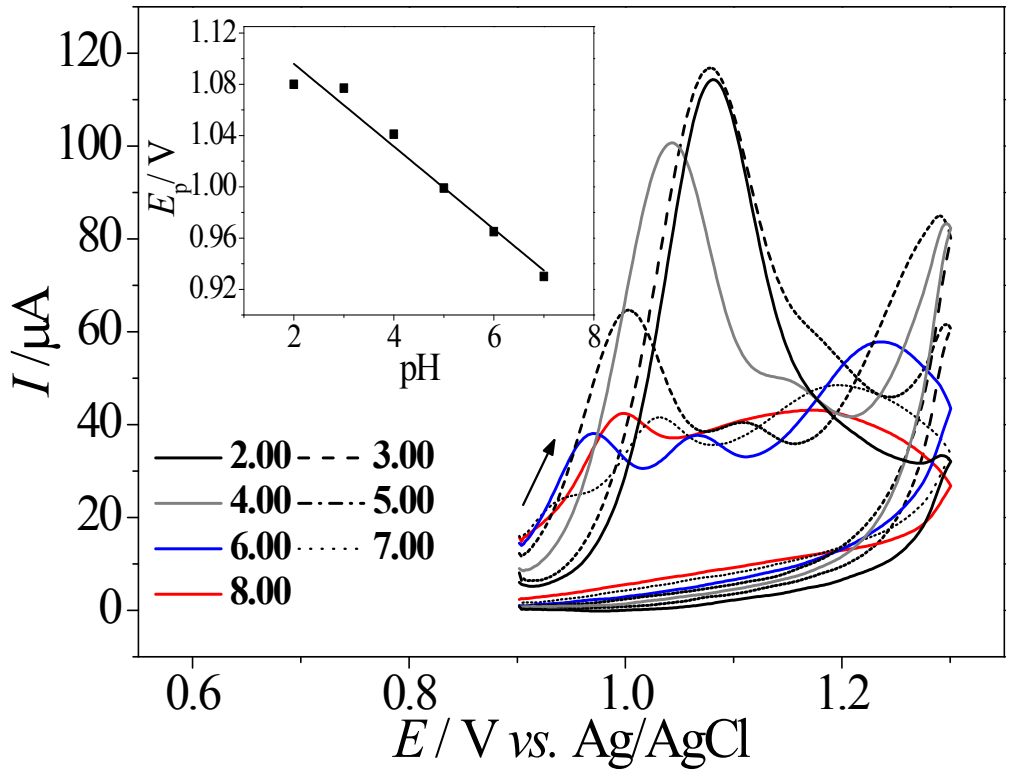

Figure S5 Cyclic voltammograms recorded for a 5.0×10^{-5} mol L^{-1}ATOR solution in 0.2 mol L^{-1} phosphate buffer (20 % v/v methanol) at different conditional pHs using the VACNT-GO electrode. Inset E_p *vs.* pH. $v = 50$ mV s^{-1}.

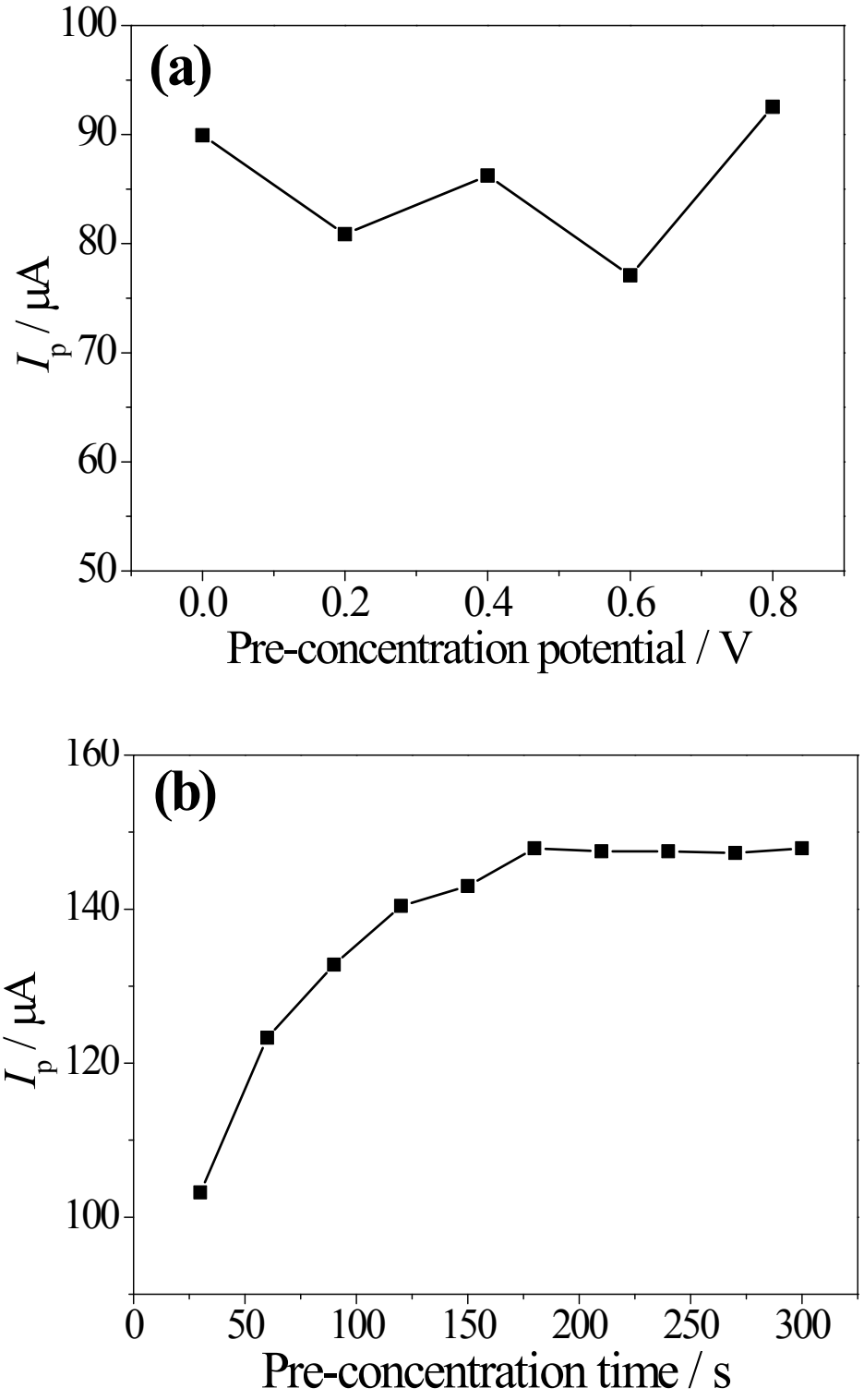

Figure S6 Effect of the **(a)** pre-concentration potential and **(b)** pre-concentration time on the peak current.