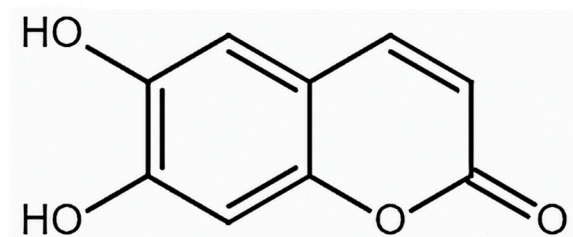
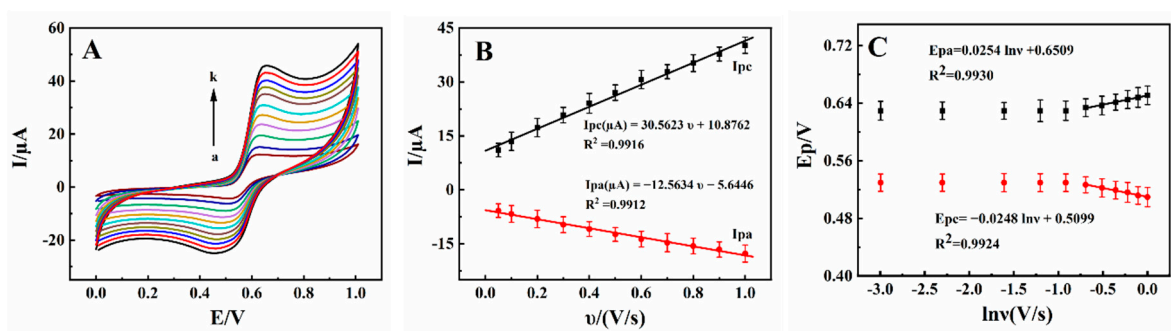


# A Portable Wireless Intelligent Nanosensor for 6,7-Dihydroxycoumarin Analysis with A Black Phosphorene and Nano-Diamond Nanocomposite-Modified Electrode

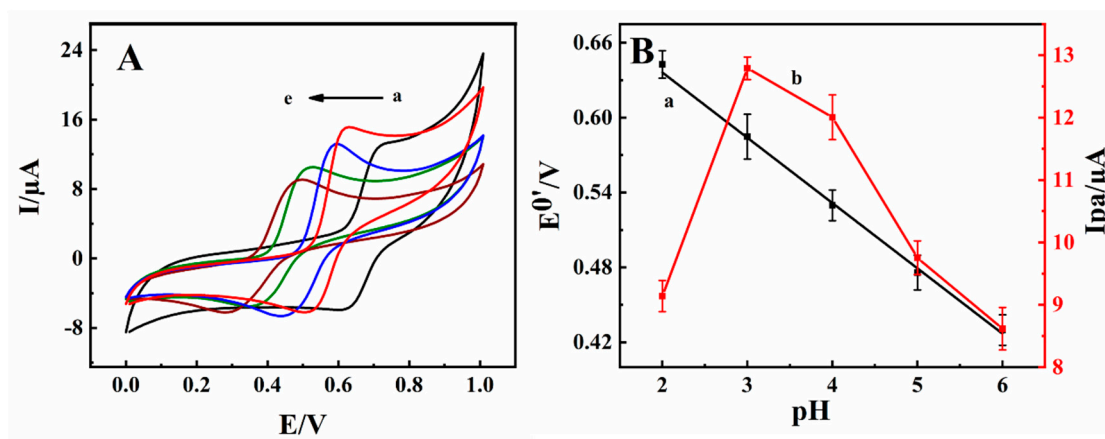
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**Figure S1.** The structural diagram of 6,7-DHC.



**Figure S2.** (A) CV curves of 0.1 mmol/L 6,7-DHC in 0.1 mol/L pH 3.0 PBS on ND@BP/SPE at different scan rates (from a to k: 0.05, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0 V/s); (B) Linear relationship of  $I_p$  versus  $\nu$  ( $n = 3$ ); (C) Linear relationship of  $E_p$  versus  $\ln \nu$  ( $n = 3$ ).



**Figure S3.** (A) CV curves of 0.1 mmol/L 6,7-DHC in 0.1 mol/L pH 3.0 PBS on ND@BP/SPE at different pH values (from a to e: 2.0, 3.0, 4.0, 5.0, and 6.0) at the scan rate of 100 mV/s; (B) The relationship between  $E^{\circ'}$  versus pH (a) and the plot of  $I_{pa}$  versus pH (b) ( $n = 3$ ).