Enhanced Anodic Electrochemiluminescence of Graphitic

Carbon Nitride by Thiophene Doping for Copper Ion

Detection

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Figure S1. (A) Photos and (B) XPS survey spectra of bulk g-CN and CNA.



Figure S2. (A) Excitation wavelength-dependent fluorescence profile of CNA nanosheets. (B) UV-vis spectra of CNA_x nanosheets. Intensity normalized. (C-D) FL spectra of CNA_x nanosheets. The excitation wavelength was 390 nm. The inset was photos of CNA_x nanosheets taken under 365 nm UV light, the order from left to right was CNNS, $CNA_{0.005}$, $CNA_{0.05}$, $CNA_{0.15}$ nanosheets.



Figure S3. The Gaussian fitting of FL emission spectra of (A) CNNS, (C) $CNA_{0.05}$ nanosheets, (D) $CNA_{0.15}$ nanosheets. The excitation wavelength was 390 nm. (B) Schematic energy level diagram of radiative transition from CNA_x nanosheets.



Figure S4. (A) Cyclic voltammetry and (B) ECL responses of bare GCE and CNNS and CNA nanosheets modified GCEs in 0.1 M PBS pH 7.0 with the potential range of 0-2.0 V at a scan rate of 0.1 V s⁻¹.



Figure S5. SEM image of the film formed by deposition of CNA nanosheets on GCEs.