## **Supporting Information**

## Enhanced sensing performance of supported graphitic carbon nitride nanosheets and the fabrication of electrochemiluminescent biosensors for IgG

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Figure S1. Photograph of colloidal dispersion of g-C<sub>3</sub>N<sub>4</sub> nanosheets in water.

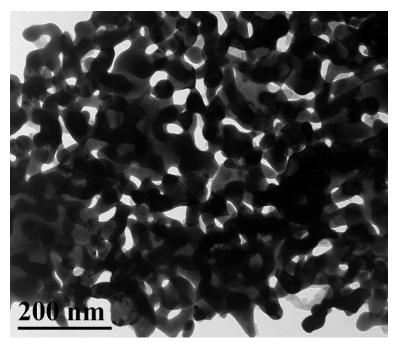


Figure S2. TEM image of NPG.

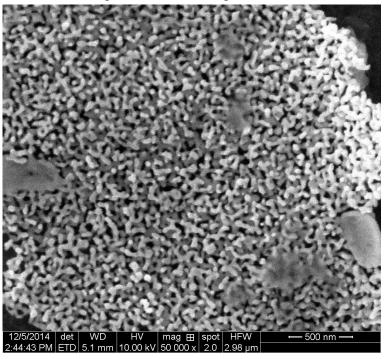


Figure S3. SEM image of g-C<sub>3</sub>N<sub>4</sub>@NPG.

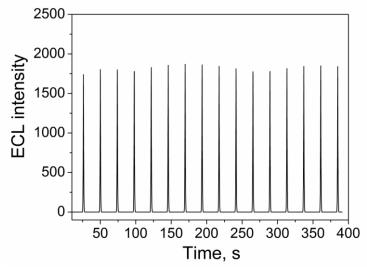


Figure S4. ECL emission from C<sub>3</sub>N<sub>4</sub>/GCE.

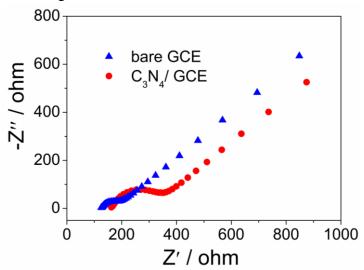


Figure S5. EIS of bare GCE and  $g\text{-}C_3N_4/GCE$ .

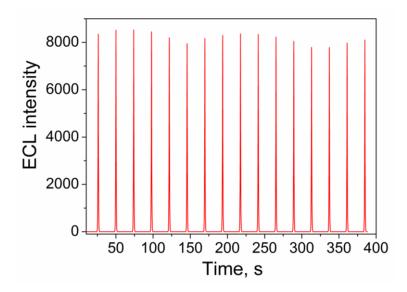


Figure S6. ECL emission from g-C<sub>3</sub>N<sub>4</sub>@NPG/GCE.

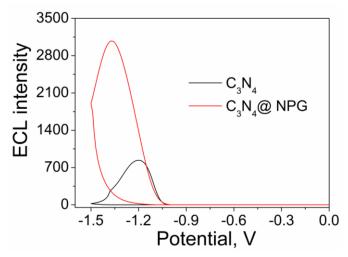


Figure S7. ECL responses obtained at g-C<sub>3</sub>N<sub>4</sub>/GCE and g-C<sub>3</sub>N<sub>4</sub>@NPG/GCE.

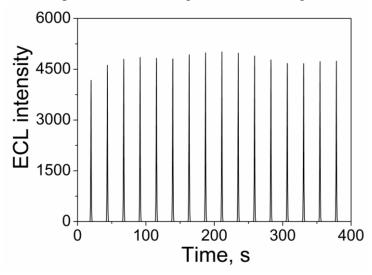


Figure S8. ECL emission from BSA/anti-IgG/C<sub>3</sub>N<sub>4</sub>@NPG/GCE.

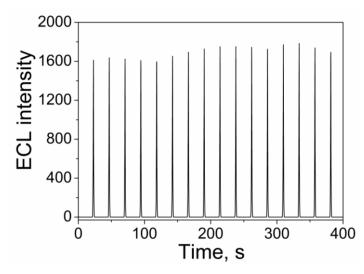


Figure S9. ECL emission from IgG/anti-IgG/g- $C_3N_4@NPG/GCE$ . The IgG concentration is 5.0  $ng\cdot mL^{-1}$ .

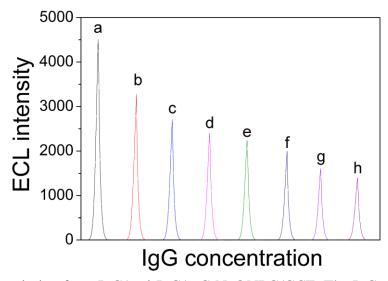


Figure S10. ECL emission from IgG/anti-IgG/g-C $_3$ N $_4$ @NPG/GCE. The IgG concentration is (a) 0.005, (b) 0.01, (c) 0.25, (d) 0.5, (e) 1.0, (f) 2.5, (g) 5.0, (h) 10.0 ng·mL $^{-1}$ .