Supporting Information

One-pot Facile Synthesis of Graphene Quantum Dots from Rice Husks for Fe^{3+} Sensing

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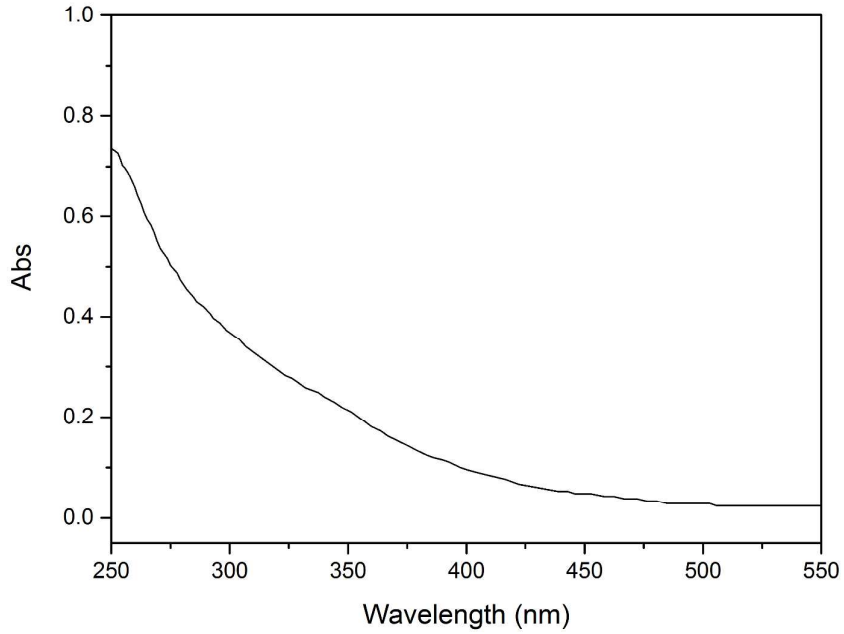

Figure S1. UV-Vis spectrum of the RH-GQDs.

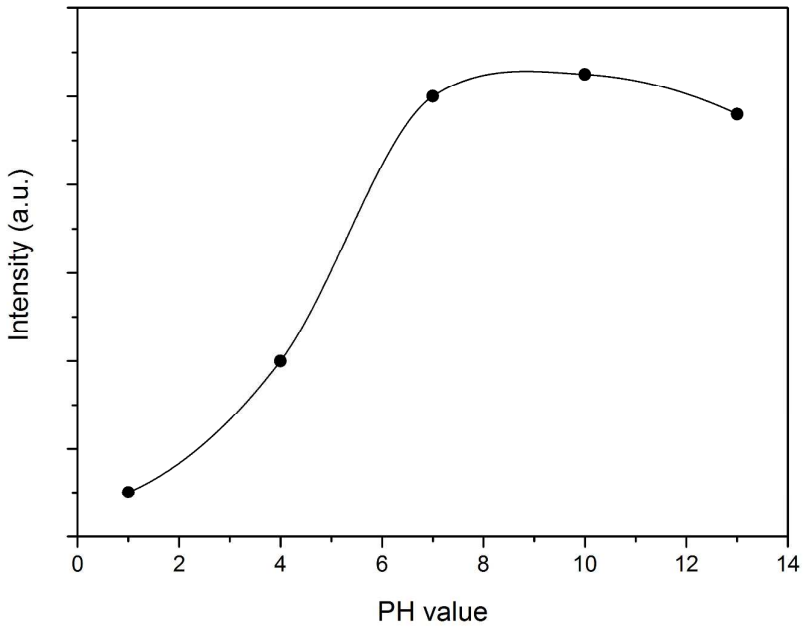

Figure S2. PL intensity of the RH-GQDs as a function of pH value.

Quantum yield calculation

The photoluminescence quantum yield (QY) of the as-prepared RH-GQDs was calculated using Rhodamine B in water (literature quantum yield 0.31)[1] as the reference dye based on the following equation:[2]

$$\eta_s = \eta_{ref} \times \frac{I_s \times A_{ref} \times {n_s}^2}{I_{ref} \times A_s \times {n_{ref}}^2}$$

where *I*, *A*, and *n* represent the integrated area of the PL emission, optical density at the excitation wavelength (400 nm), and refractive index of the solvent, respectively, for the sample (*s*) and reference (*ref*).

Table S1. Quantum yield of the RH-GQDs.

Sample	*I*	*A*	*n*	η
Rhodamine B	372493527	0.2769	1.33	0.31
RH-GQDs	36509484	0.09562	1.33	0.088

References:

1. Magde, D.; Rojas Gail, E.; Seybold Paul, G., Solvent Dependence of the Fluorescence Lifetimes of Xanthene Dyes. *Photochemistry and Photobiology* **2008,** 70, (5), 737-744.
2. Shen, J.; Zhu, Y.; Chen, C.; Yang, X.; Li, C., Facile preparation and upconversion luminescence of graphene quantum dots. *Chemical communications* **2011,** 47, (9), 2580-2582.