

## Supporting information

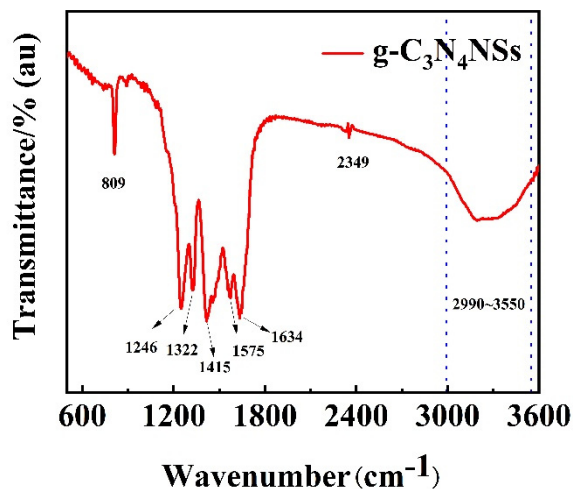


Figure S1. The IR spectra of g-C<sub>3</sub>N<sub>4</sub>NSs

The peak at 809 cm<sup>-1</sup> belongs to triazine ring mode, which corresponds to condensed CN heterocycles. The absorption three bands at 1246, 1322 and 1415 cm<sup>-1</sup> correspond to aromatic C–N stretching, while the bands near 1575 and 1634 cm<sup>-1</sup> are attributed to C=N stretching. The broad band at 2990–3550 cm<sup>-1</sup> corresponds to uncondensed terminal amino groups (–NH<sub>2</sub> or N=H groups). The IR results are consistent with the characteristic peaks of that in the references [1, 2], indicating that g-C<sub>3</sub>N<sub>4</sub>NSs has been successfully prepared.

- [1] J. Xu, L. Zhang, R. Shi, Y. Zhu, Chemical exfoliation of graphitic carbon nitride for efficient heterogeneous photocatalysis, *Journal of Materials Chemistry A*, 1 (2013) 14766-14772.
- [2] Z. Fu, Z. Ma, T. Yu, L. Bi, A first blue fluorescence composite film based on graphitic carbon nitride nanosheets/polyoxometalate for application in reversible electroluminescence switching, *Journal of Materials Chemistry C*, 7 (2019) 3253-3262.