# Supporting information

## Fabrication of luminol and lucigenin bifunctionalized gold nanoparticles/graphene oxide nanocomposites with dual-wavelength chemiluminescence

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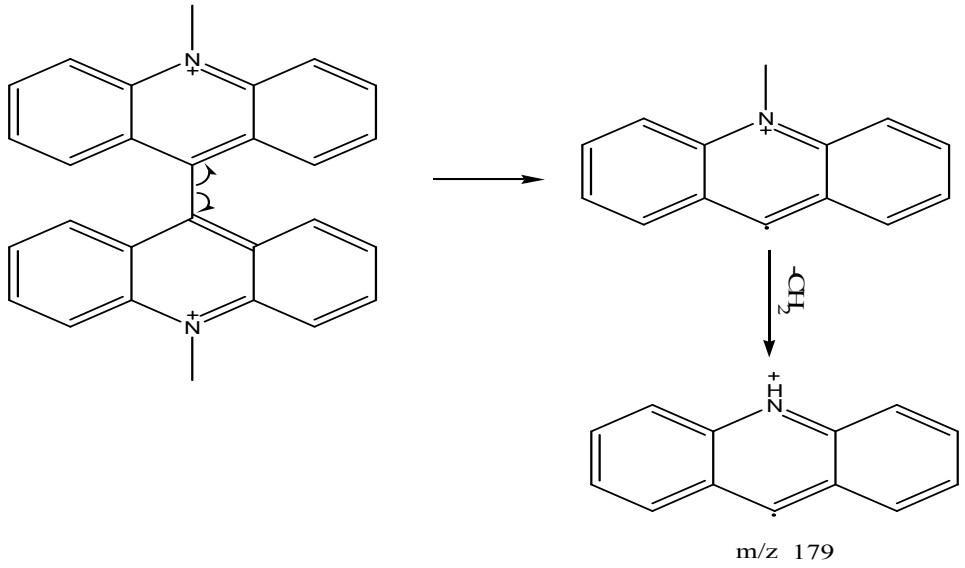
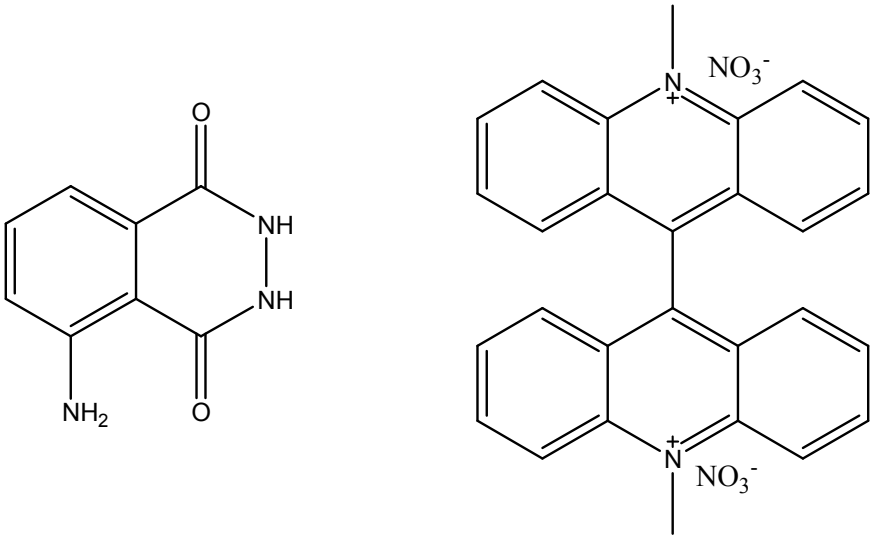



**Scheme S1** The cleavage mechanism of lucigenin molecule in the mass spectrometer.




A B

**Fig.S1** The molecular formulas of luminol (A) and lucigenin (B)

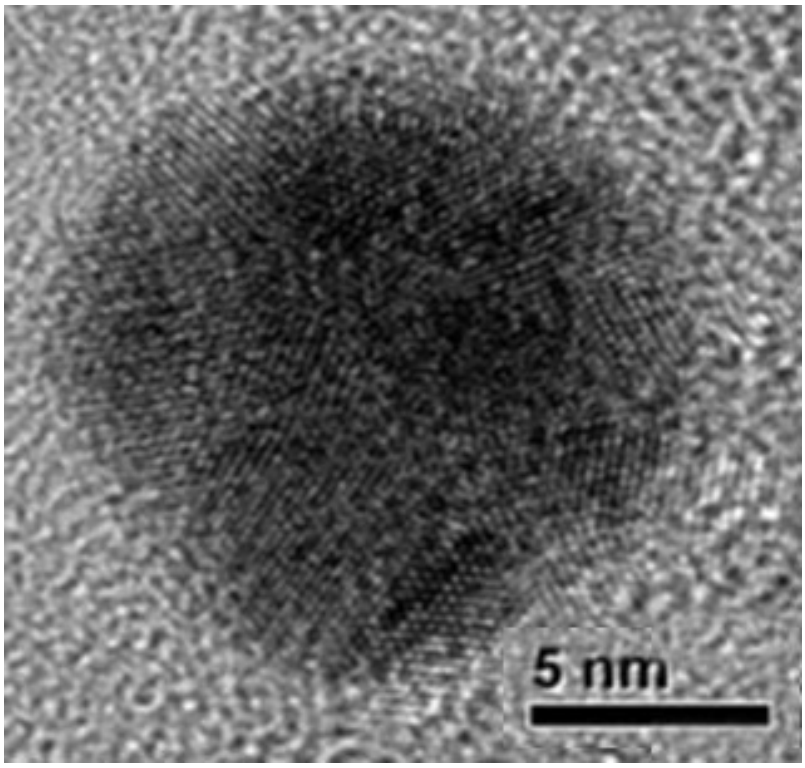



**Fig. S2** The high resolution TEM image of AuNPs/GO nanocomposites.

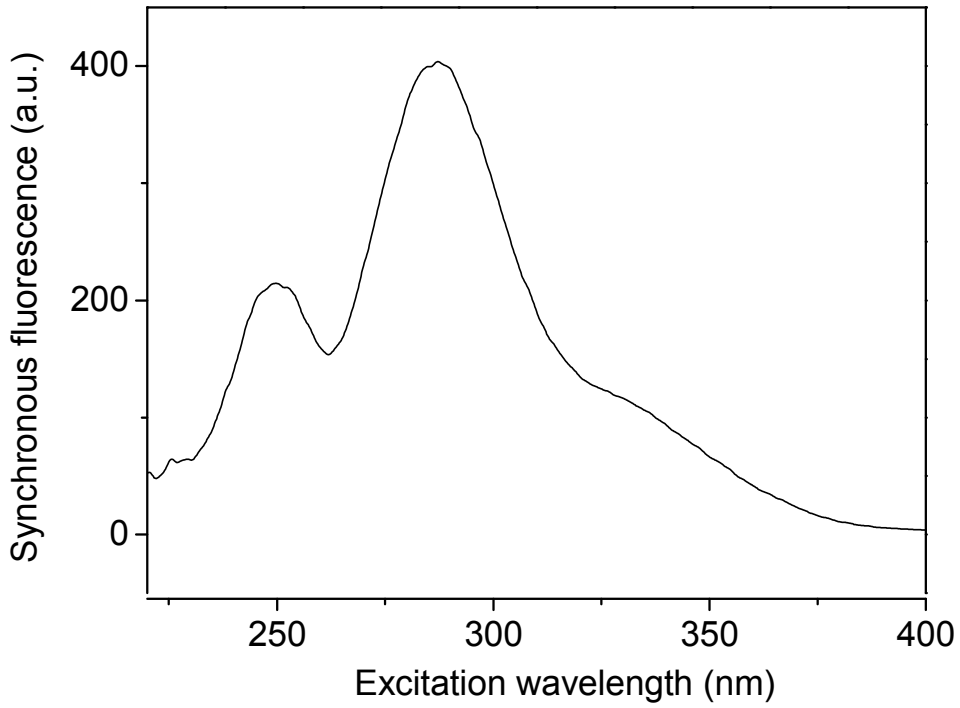



**Fig. S3** The synchronous fluorescence spectra of AuNPs/GO nanocomposites

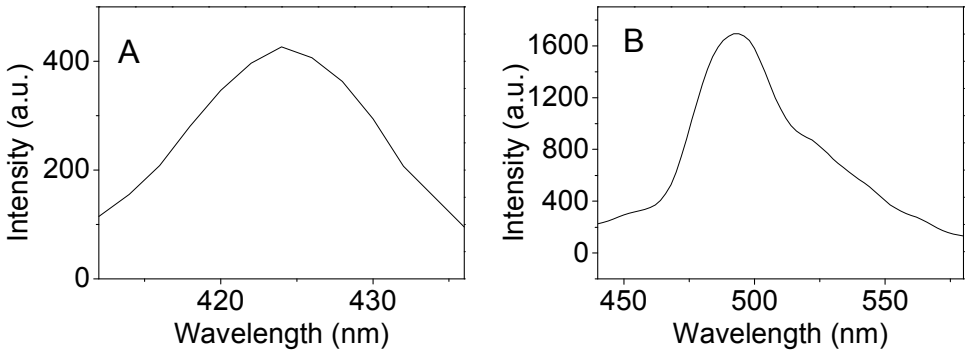



**Fig. S4** CL spectra for luminol-$H_2O_2$ system (A) and lucigenin-$H_2O_2$ system (B) .