One pot synthesis of hollow hydrangea Au nanoparticle as a dual catalyst with SERS activity for in-suit monitoring reduction reaction

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Fig. S1 SEM image of hollow flower-like Au crystals.

Fig. S2 HRTEM image of hollow flower-like Au crystals.
Fig. S3 Absorption spectra of 4-NTP with NaBH₄.

Fig. S4 Absorption spectra of 4-ATP with NaBH₄.

Fig. S5 The optimized structure and the calculate UV-vis spectra analysis of trans-DMAB.
Fig. S6 Absorption spectra of 4-NTP with NaBH₄ in the presence of 1.0 mg Au nanoparticles.

Fig. S7 Absorption spectra of 4-NTP with NaBH₄ in the presence of 1.5 mg Au nanoparticles.

Fig. S8 Absorption spectra of 4-NTP with NaBH₄ in the presence of 2.0 mg Au nanoparticles.