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Thermoresponsive gold nanoparticles with adjustable lower critical solution temperature as colorimetric sensors to temperature, pH and salt concentration

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Fig. S1 Typical curve of transmittance versus temperature and information of LCST and sharpness of transition therefrom.
**Fig. S2** TEM images of (A-C) citrate protected AuNPs; (D-F) composite of AuNPs with HPEI1.2K-IBAm0.95; (G-I) composite of AuNPs with HPEI10K-IBAm0.63
Fig. S3 The typical UV-vis spectra of aqueous solutions of AuNPs and their composites with HPEI-IBAm polymers
Fig. S4 The $\lambda_{\text{peak}}$ variation of the AuNP-HPEI1.2K-IBAm_{0.95} composite in the presence of 0.10M NaCl versus (A) temperature at different pH condition; (B) pH at 38 °C.
Fig. S5 The $\lambda_{\text{peak}}$ variation of the AuNP-HPEI10K-IBAm$_{0.63}$ composite versus (A) temperature at different pH condition; (B) pH at 38°C