

Electronic Supplementary Information (ESI)

Responsive Au@Polymer Hybrid Microgels for the Simultaneous Modulating and Monitoring of Au-Catalyzed Chemical Reaction

*Chuanfu Xiao, Qingshi Wu, Aiping Chang, Yahui Peng, Wenting Xu, and Weitai Wu**

State Key Laboratory for Physical Chemistry of Solid Surfaces, and Department of Chemistry, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen 361005, Fujian, China

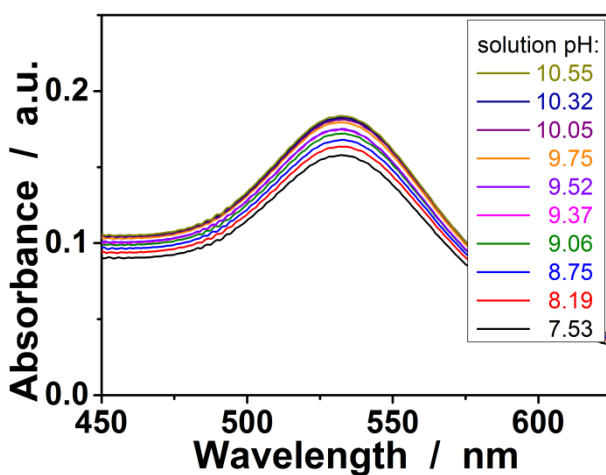


Fig. S1 pH-dependent UV-vis spectra of Au@p(NIPAM-Am) hybrid microgels

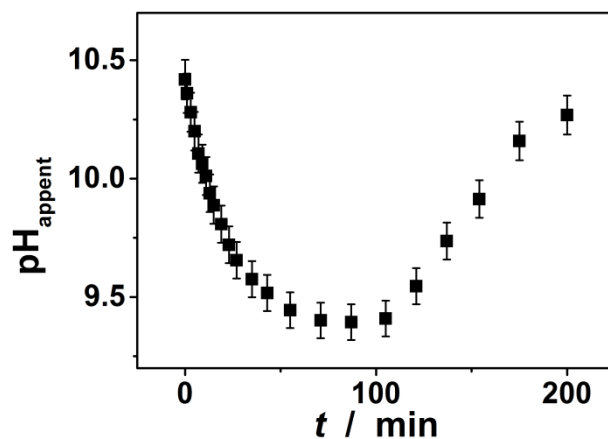


Fig. S2 Changes in the local pH value (from the changes LSPR intensity) during the catalyzed reduction of $\text{Fe}(\text{CN})_6^{3-}$ ions.

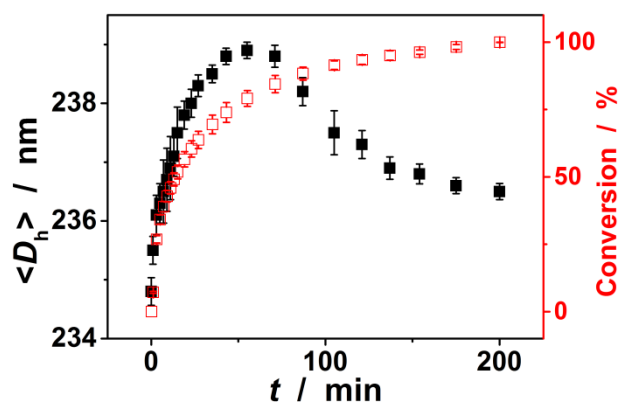


Fig. S3 Changes in the $\langle D_h \rangle$ of $\text{Au}@p(\text{NIPAM-Am})$ hybrid microgels during the catalyzed reduction of $\text{Fe}(\text{CN})_6^{3-}$ ions. Time-domain conversion measured with the $\text{Fe}(\text{CN})_6^{3-}$ absorption is also presented for comparison.