

Supplementary Materials: Hybrids of Gold Nanoparticles with Core-Shell Hyperbranched Polymers: Synthesis, Characterization, and Their High Catalytic Activity for Reduction of 4-Nitrophenol

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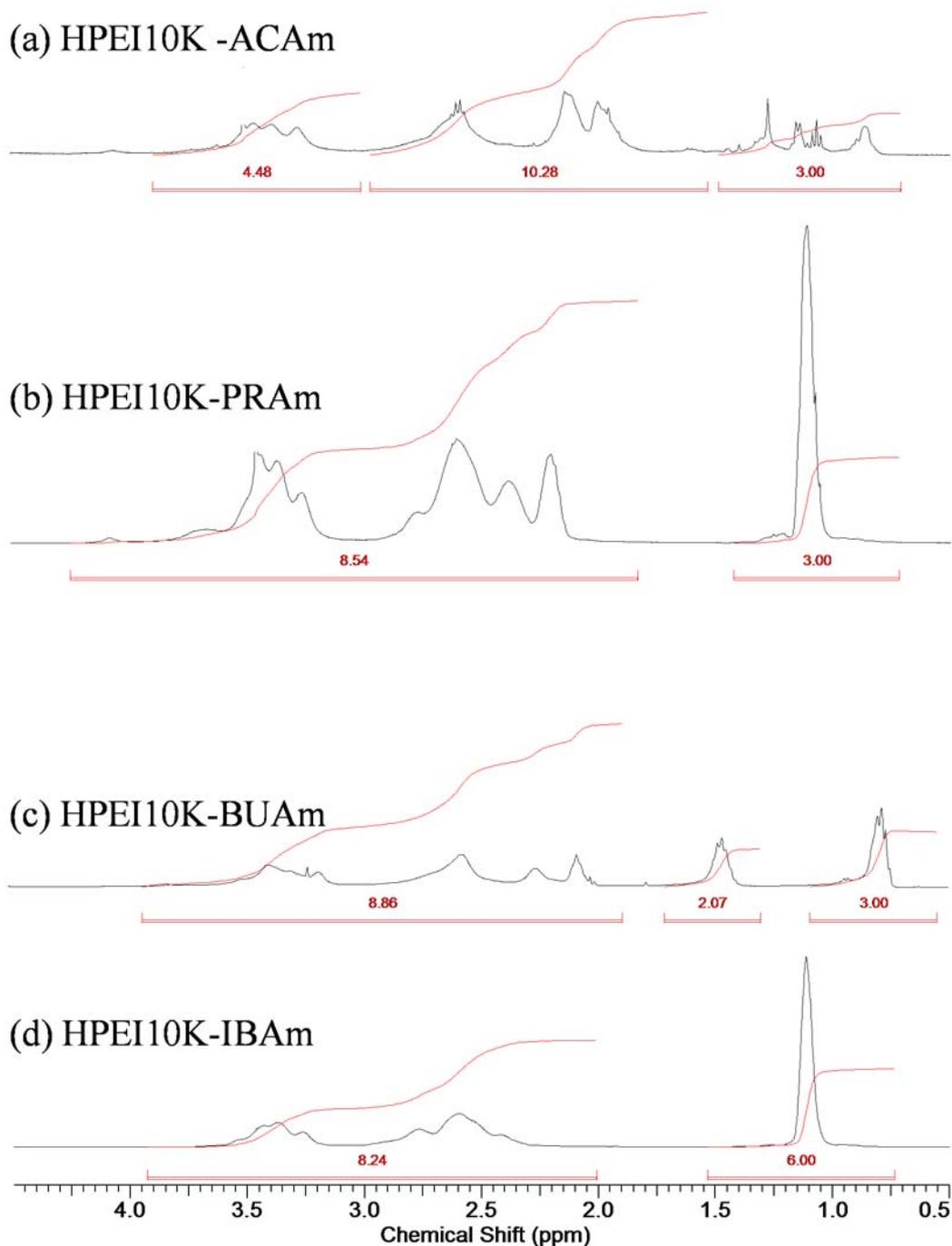


Figure S1. ¹H NMR spectra of (a) HPEI10K-ACAm, (b) HPEI10K-PRAm, (c) HPEI10K-BUAm and (d) HPEI10K-IBAm.

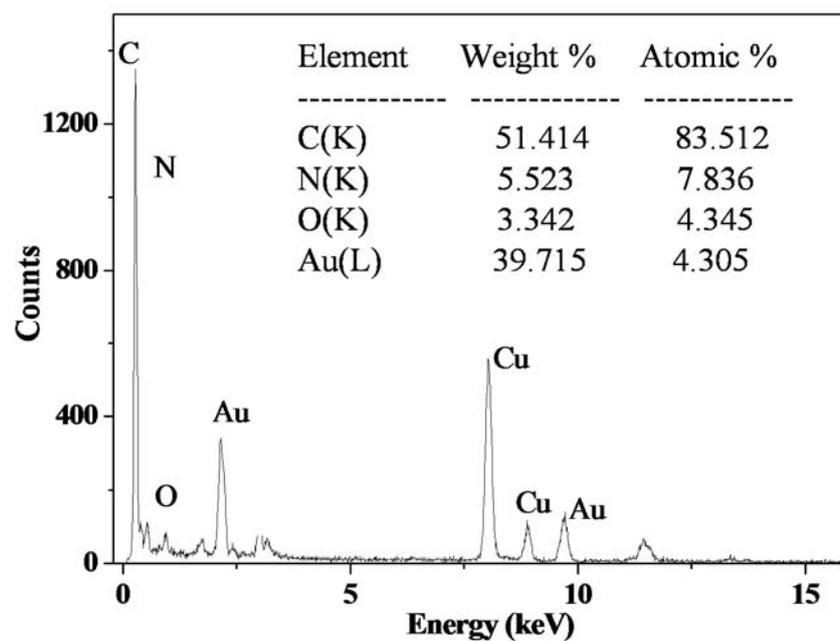


Figure S2. EDX spectra of the precipitates obtained by five cycles of centrifugation of a solution of AuNPs-HPEI-IBAm.

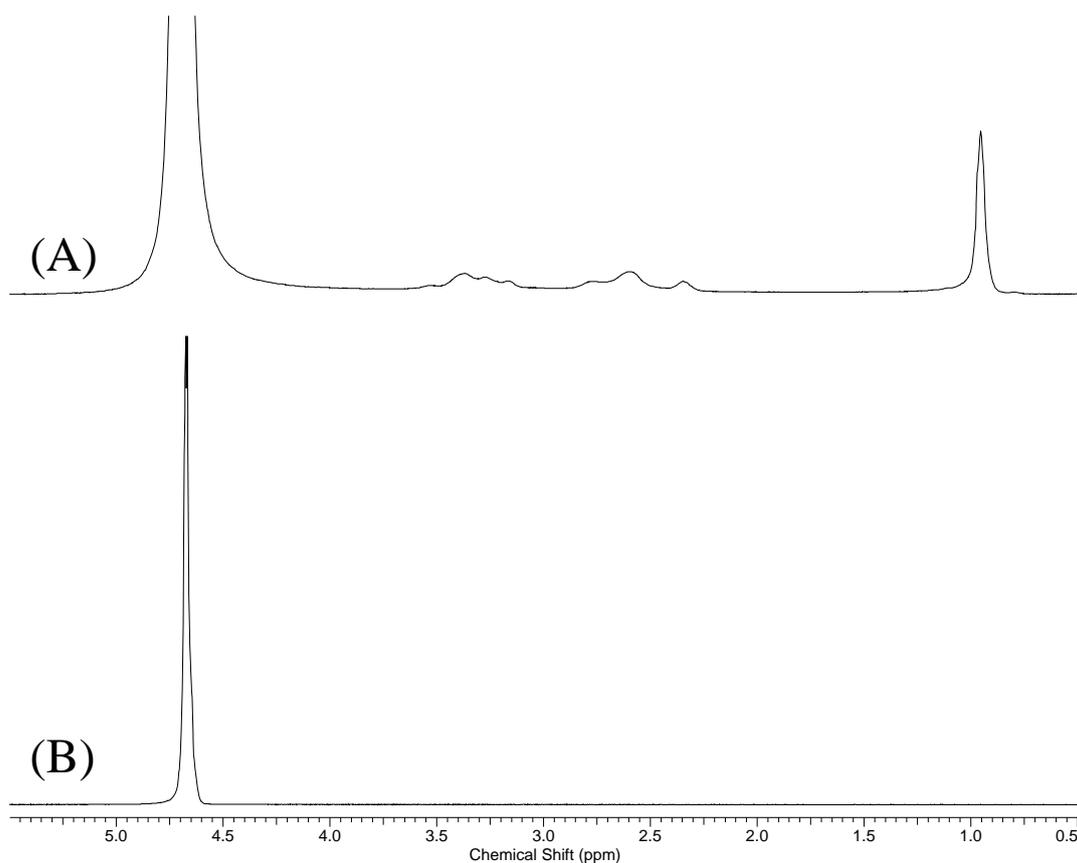


Figure S3. ¹H NMR spectra of (A) AuNPs-HPEI10K-IBAm and (B) AuNPs.

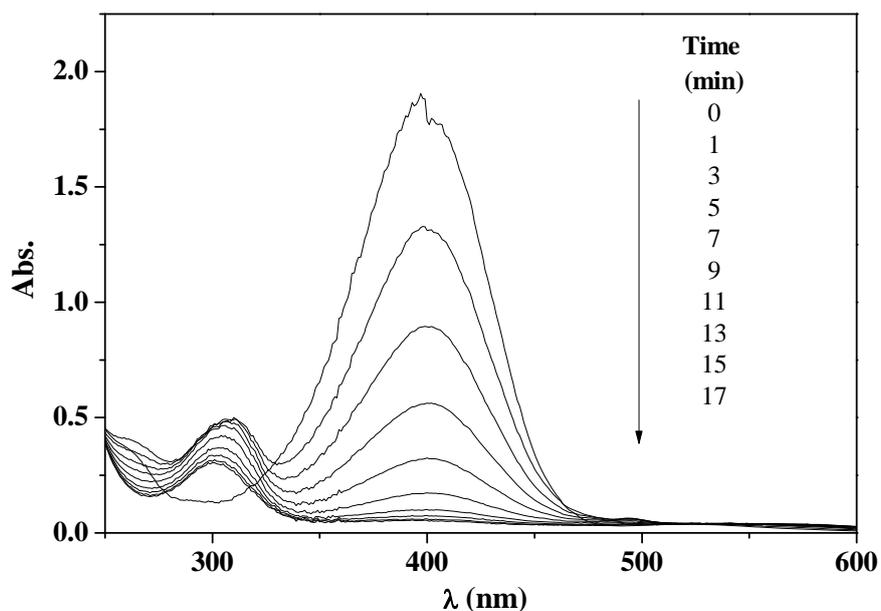


Figure S4. The UV-vis absorbance spectra of the AuNPs catalyzed reduction of 4-nitrophenol by NaBH_4 ($[\text{4-nitrophenol}] = 1.0 \times 10^{-4} \text{ M}$, $[\text{NaBH}_4] = 1.0 \times 10^{-2} \text{ M}$, $[\text{Au}] = 9.5 \times 10^{-6} \text{ M}$, $[\text{HPEI10K-IBAm}_{0.8}] = 7.1 \times 10^{-6} \text{ M}$).

Table S1. Elemental analyses of AuNPs-HPEI10K-IBAm_{0.80} and AuNPs-HPEI10K-ACAm_{0.80}.

Sample	C%	N%	H%
AuNPs-HPEI10K-IBAm _{0.80}	46.91	16.24	4.02
AuNPs-HPEI10K-ACAm _{0.80}	46.37	23.31	5.44



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