Supporting information for Colorimetric Visualization Detection of Perfluorooctanoic Acid Based on Host-Guest Interactions with Cyclodextrin-Modified Gold Nanoparticles

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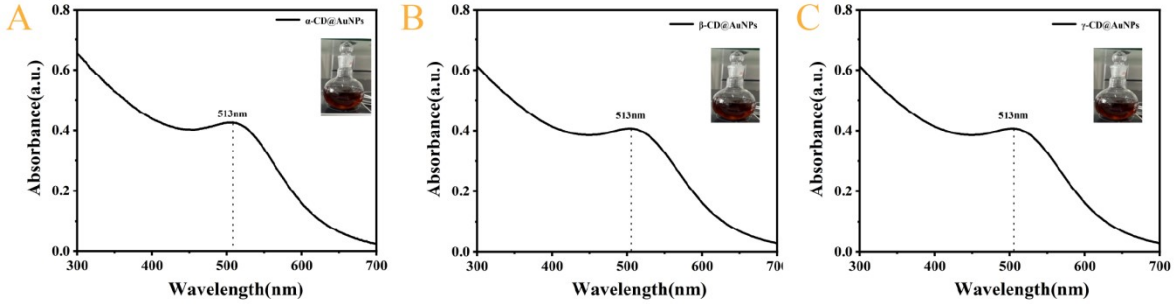

Figure S1. UV−vis absorption spectrum and photoimage of (A) α-CD@AuNPs,(B) β-CD@AuNPs and (C) γ-CD@AuNPs.

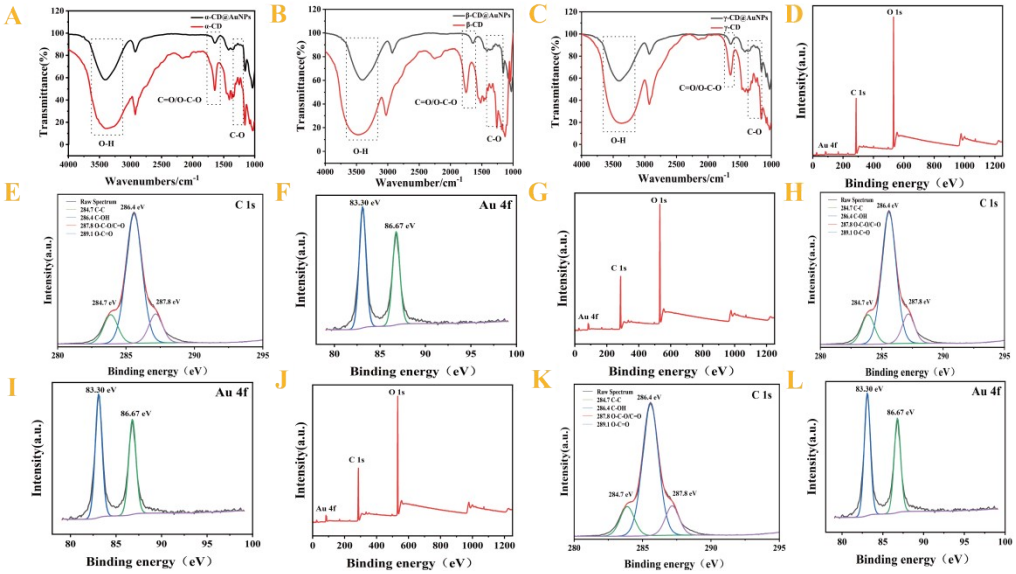

Figure S2. (A) The FTIR spectra of pristine α-CD and α-CD@AuNPs. (B) The FTIR spectra of pristine β-CD and β-CD@AuNPs. (C) The FTIR spectra of pristine γ-CD and γ-CD@AuNPs. (D) XPS spectra of α-CD@AuNPs.
(E) C 1s. (F) Au 4f. (G) XPS spectra of β-CD@AuNPs.(H) C 1s.(I) Au 4f. (J) XPS spectra of γ-CD@AuNPs.
(K) C 1s. (L) Au 4f.

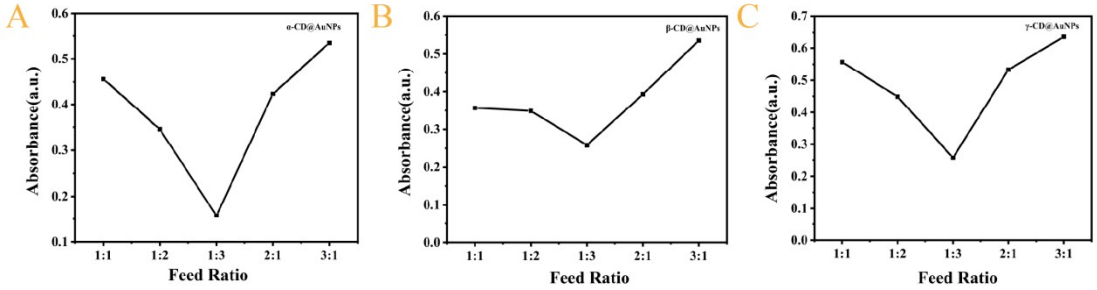

Figure S3. Optimization of assay conditions. (A-C) Effects of feed ratio of α-CD@AuNPs, β-CD@AuNPs and γ-CD@AuNPs. (PFOA(200μM)).

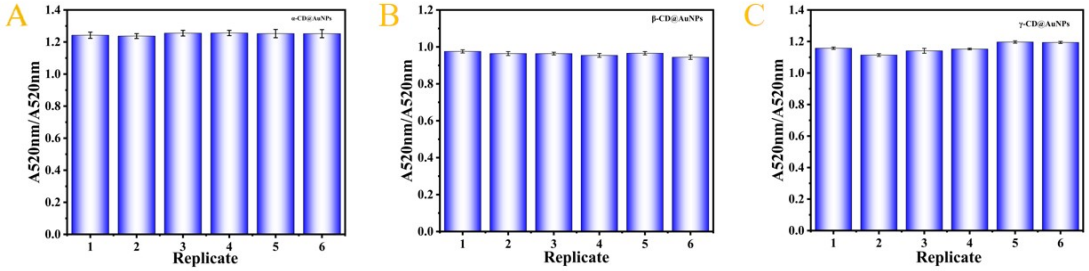

Figure S4. Stability chart of CD@AuNPs for detecting PFOA. (A) α-CD@AuNPs. (B) β-CD@AuNPs. (C) γ-CD@AuNPs. The absorbance ratio A520nm/A520nm was measured across six replicates to evaluate the stability of the nanoparticles.