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SUPPLEMENTARY INFORMATION

Dual-Functional Gold-Iron Oxide Core-Satellite Hybrid Nanoparticles for Sensitivity Enhancement in Biosensors via Nanoplasmonic and Preconcentration Effects

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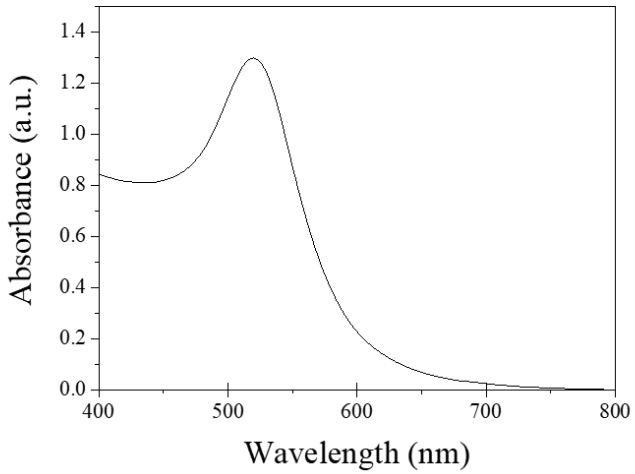

Fig. S1 UV–Vis absorption spectrum of a solution of AuNPs in aqueous medium.

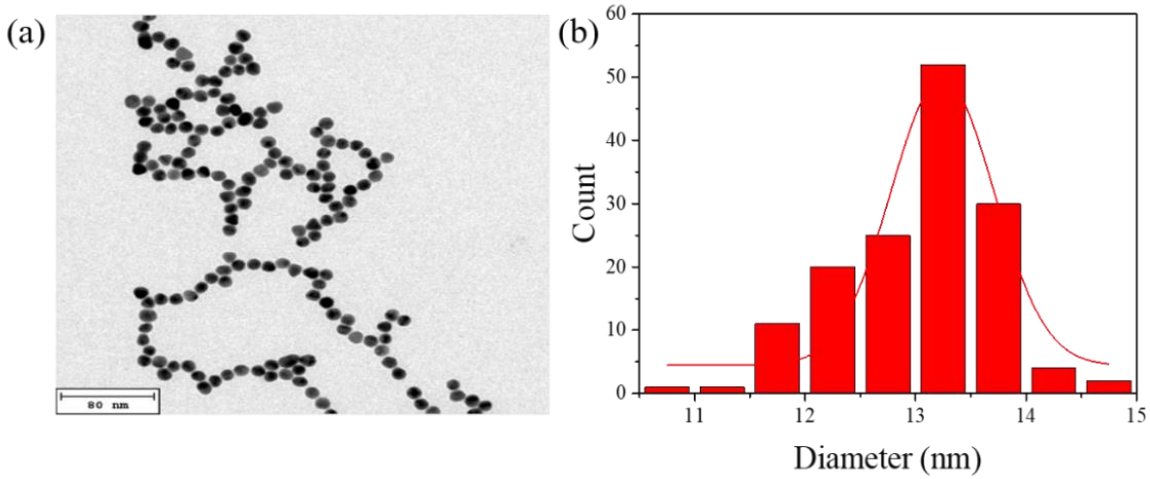

Fig. S2 (a) TEM image of AuNPs. (b) Size distribution of AuNPs by TEM image analysis. Average diameter = 13.0 ± 0.7 nm (*n* = 146).

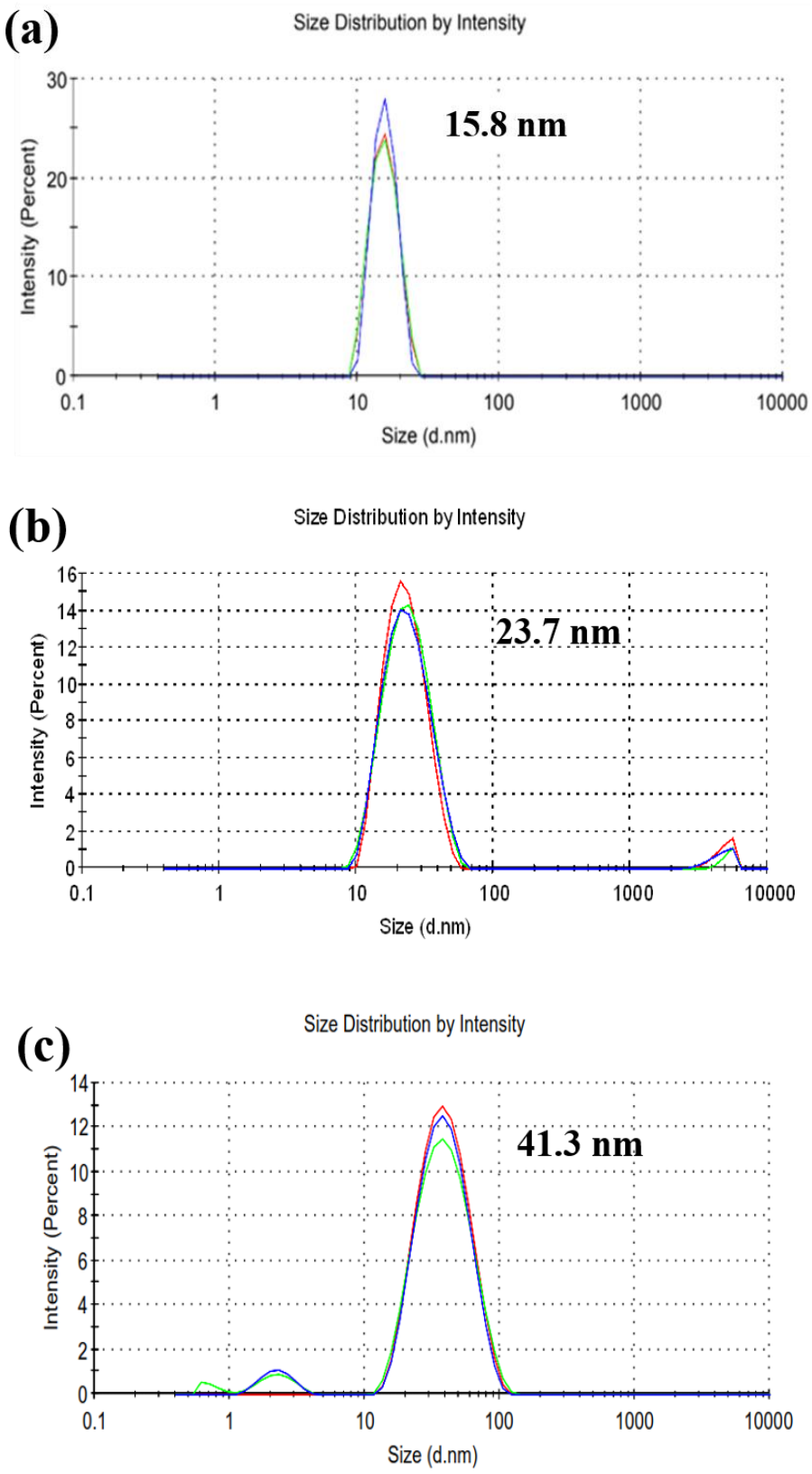

Fig. S3 Hydrodynamic particle size distributions measured by DLS for a solution of (a) AuNPs, (b) AuNP@mSAM, and (c) HNPs three times.

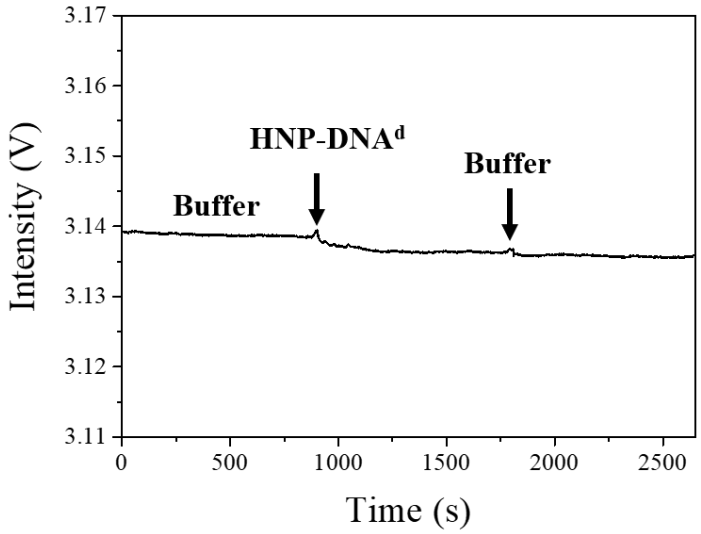

Fig. S4 Background nonspecific adsorption test: Real-time response of a sensor fiber upon injection of a solution of HNP-DNA^{d} (~5×10^{-10} M).

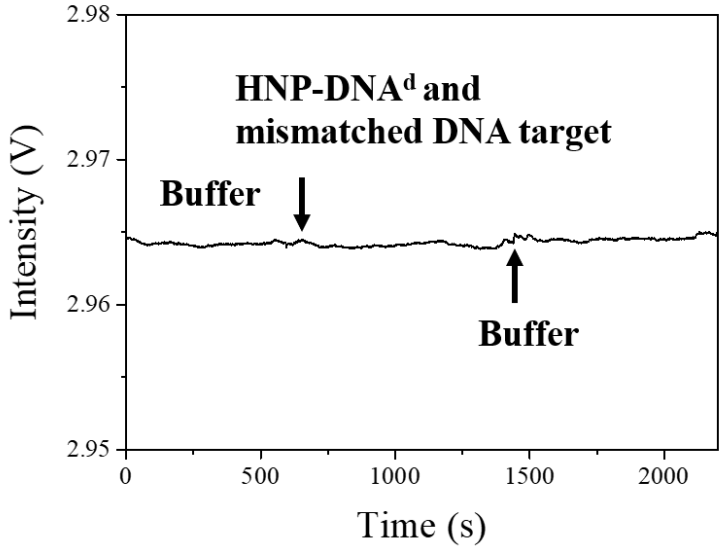

Fig. S5 Specificity test: Real-time response of a sensor fiber upon injection of a solution containing mismatched DNA (1×10^{-10} M) and HNP-DNA^{d} (~5×10^{-10} M).