Electronic Supplementary Material (ESI) for Analytical Methods.

Supporting information for

Colorimetric detection of residual hydrogen peroxide in soaked food based on Au@Ag nanorods

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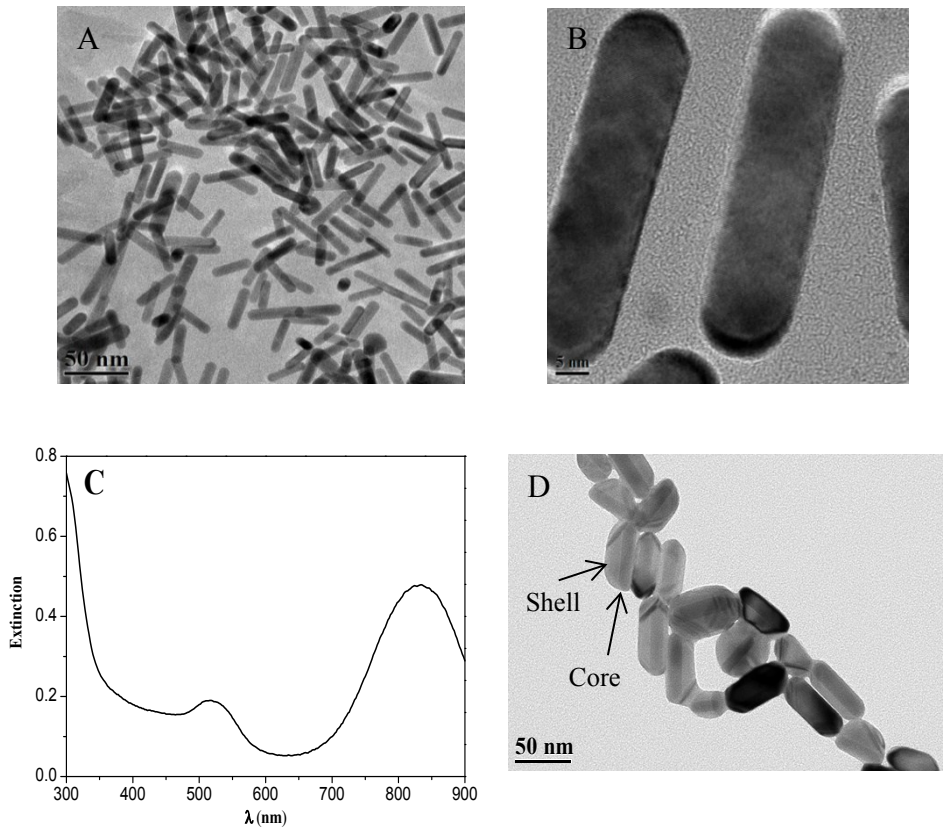

Figure S1. TEM images (A, B) and extinction spectrum (C) of Au NRs, TEM images of Au@Ag NRs (D)

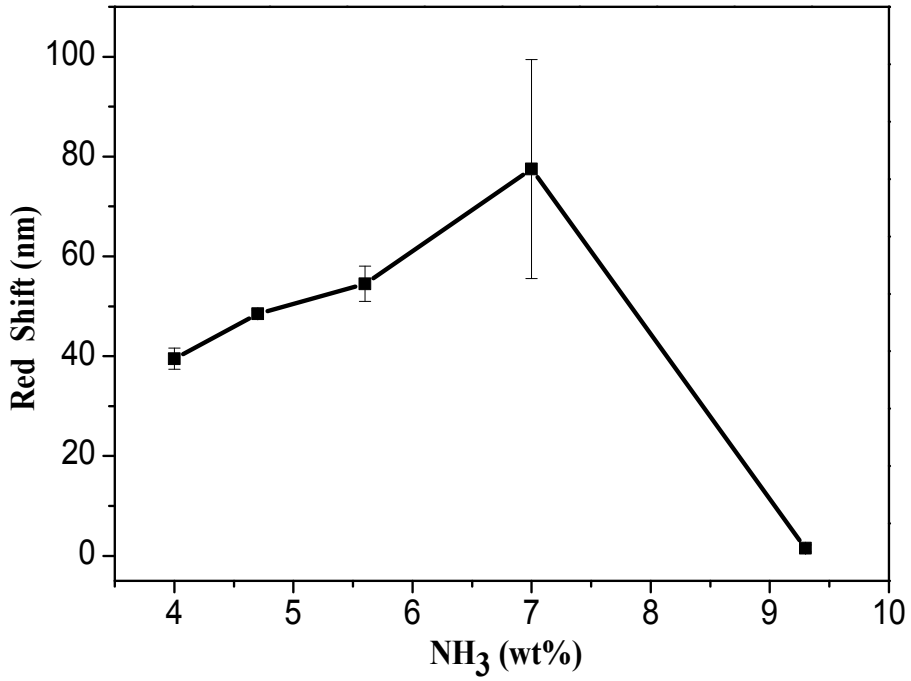

Figure S2. Effects of NH_3 concentration (4.0, 4.7, 5.6, 7.0, 9.3%) on the red shift of Au@Ag NRs at the presence of 60 μmol L^{-1} H_2O_2.

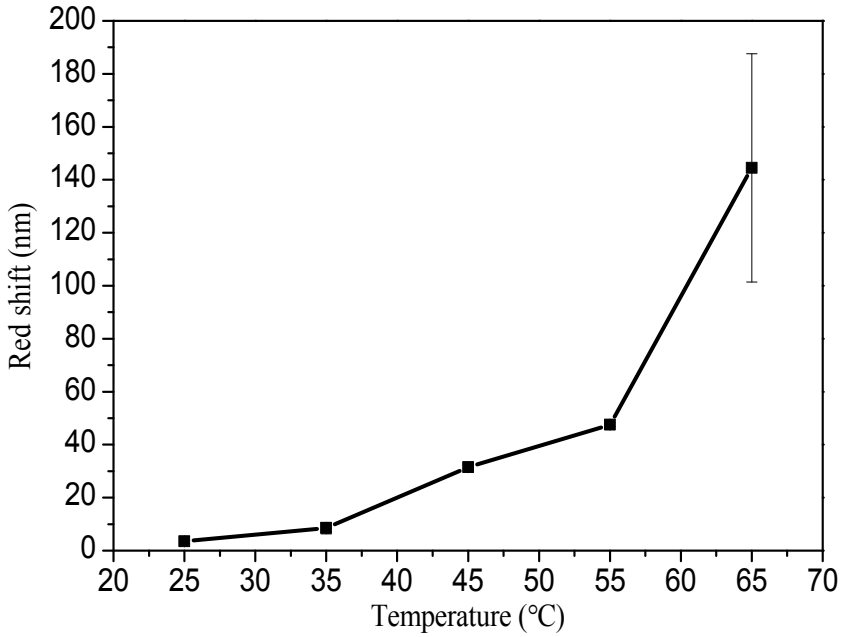

Figure S3. Effects of temperature on the red-shift of Au@Ag NRs at the presence of 60 μmol L^{-1} H_2O_2.

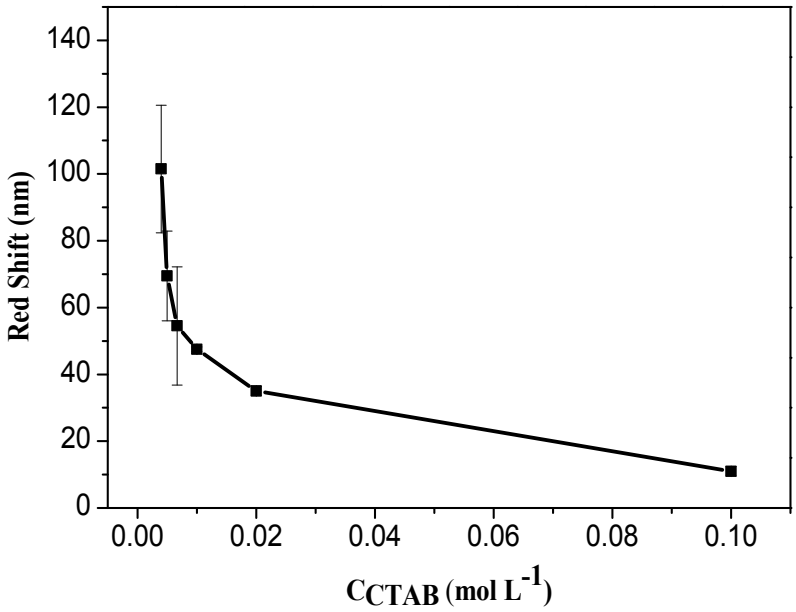

Figure S4. Effects of CTAB concentration (0.1, 0.02, 0.01, 0.0067, 0.005, 0.004 mol L^{-1}) on the red shift of Au@Ag NRs at the presence of 60 μmol L^{-1} H_2O_2.

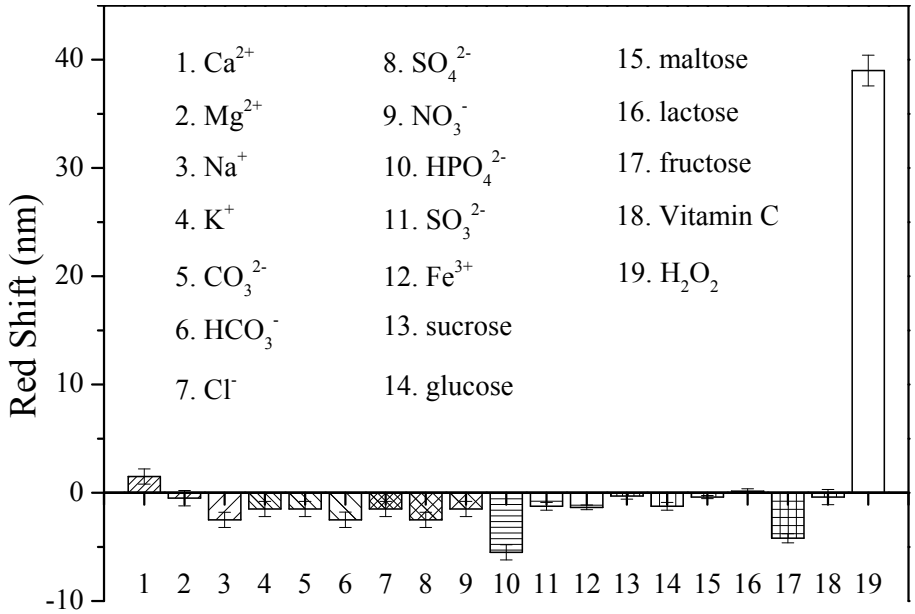

Figure S5. Red-shift of longitudinal SPR of Au@Ag NRs in the presence of possible interferents and H_2O_2, respectively. (The error bars represent the standard deviation of three measurements) (Ca^{2+}: 5 mmol L^{-1}, Mg^{2+}: 5 mmol L^{-1}, Na^{+}: 5 mmol L^{-1}, K^{+}: 5 mmol L^{-1}, NO_3^{-}: 1 mmol L^{-1}, CO_3^{2-}: 1 mmol L^{-1}, HCO_3^{-}:1 mmol L^{-1}, Cl^{-}: 1 mmol L^{-1}, SO_4^{2-}: 1 mmol L^{-1}, HPO_4^{2-}:1 mmol L^{-1}, Fe^{3+}: 0.5 mmol L^{-1}, sucrose: 1 mmol L^{-1}, glucose: 1 mmol L^{-1}, maltose: 1 mmol L^{-1}, lactose: 1 mmol L^{-1}, fructose: 0.5 mmol L^{-1}, vitamin C: 1 mmol L^{-1}, H_2O_2: 60 μmol L^{-1})