

Thermal analysis was carried out under heating at 20 K/min in an air atmosphere (50 mL/min) on an SDT Q600 simultaneous thermal analyzer (TA Instrument, New Castle, DE, USA) interfaced with a Nicolet 380 FT-IR spectrometer (Thermo Electron Corporation, Waltham, MA, USA) via a TGA/FT-IR interface (a gas analyzer unit).

Figure 1 shows the thermal behavior of the CoFe₂O₄/Au sample. The mass loss is 2.5 wt. %. The exothermic effect with maximum at 227.27 °C corresponds to the oxidation of carbon and sulfur and release of CO₂ and SO₂. An exothermic peak at 370.74 °C corresponds to the oxidation of NH₂-groups and the release of N₂O.

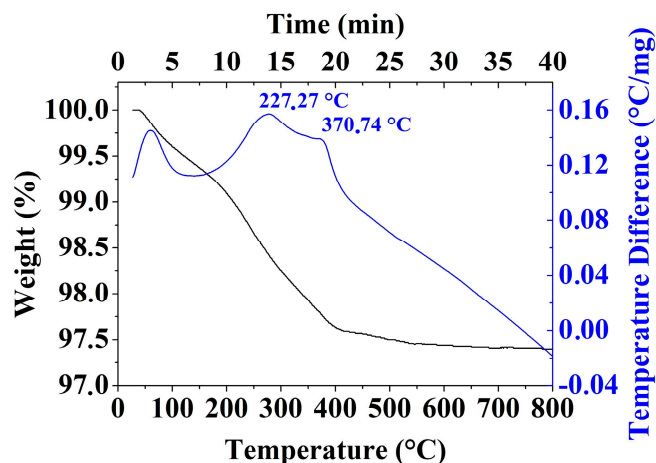


Figure S1. TGA curve (black) and DSC curve (blue) of CoFe₂O₄/Au NPs after 10 gold deposition cycles.

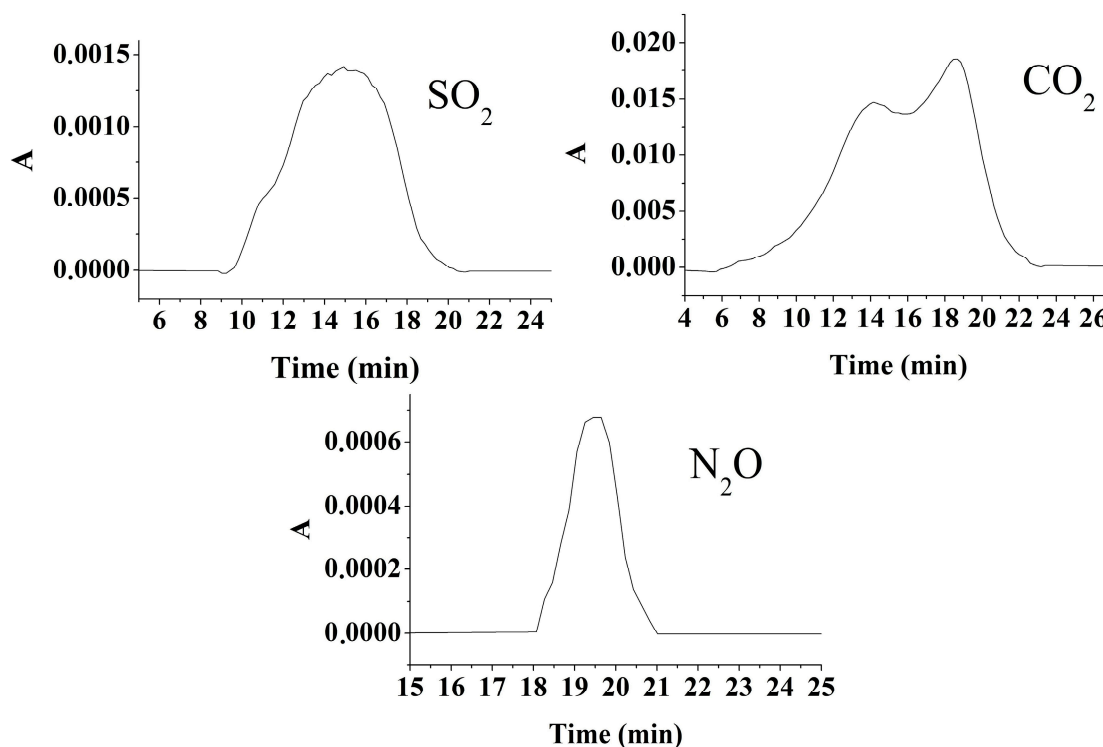


Figure S2. Optical absorption spectra of gases (H₂O is not determined) evolved during TGA (thermal decomposition of organic part of CoFe₂O₄/Au NPs after 10 gold deposition cycles).