

Supporting information data

**Synergistic Enhanced Photocatalytic and Photothermal Activity of Au@TiO₂
Nanopellets against Human Epithelial Carcinoma Cells**

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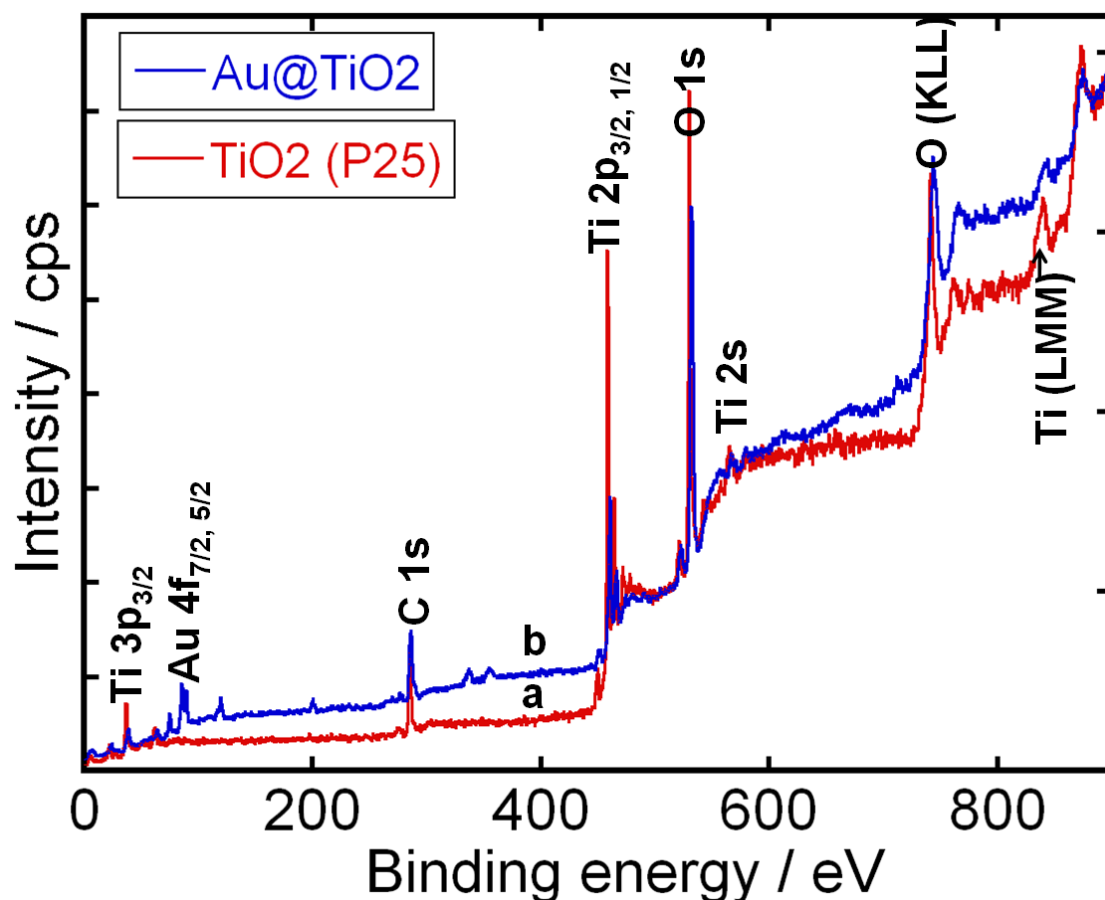


Fig. S1. XPS wide-survey spectra of (a) naked TiO_2 (P25) and (b) Au@TiO_2 core-shell nanopellets.

PL spectral experimental procedure

PL spectral experimental procedures are as follows. The TiO_2 (P25) or Au@TiO_2 powder of 4 mM was suspended separately in 20 ml of the 5×10^{-4} M terephthalic acid aqueous solution with a concentration of 2×10^{-3} M NaOH in a small size biker with a mild stirring. An aqueous suspension containing powder was exposed to UV-visible light (350-600 nm) provided by a 500 W Xe lamp (UXL-500SX, Ushio) through a bandpass filter (V-B46, Asahi Techno glass). After light irradiation every 10 min for TiO_2 powder and 5 min for Au@TiO_2 powder, the reaction solution was filtrated to measure the PL spectra of 2-hydroxyterephthalic acid excited by 315 nm light.