

Synthesis of plasmonic  $\text{Ti}^{3+}$  doped  $\text{Au/Cl-TiO}_2$  mesocrystals with enhanced visible-light photocatalytic activity

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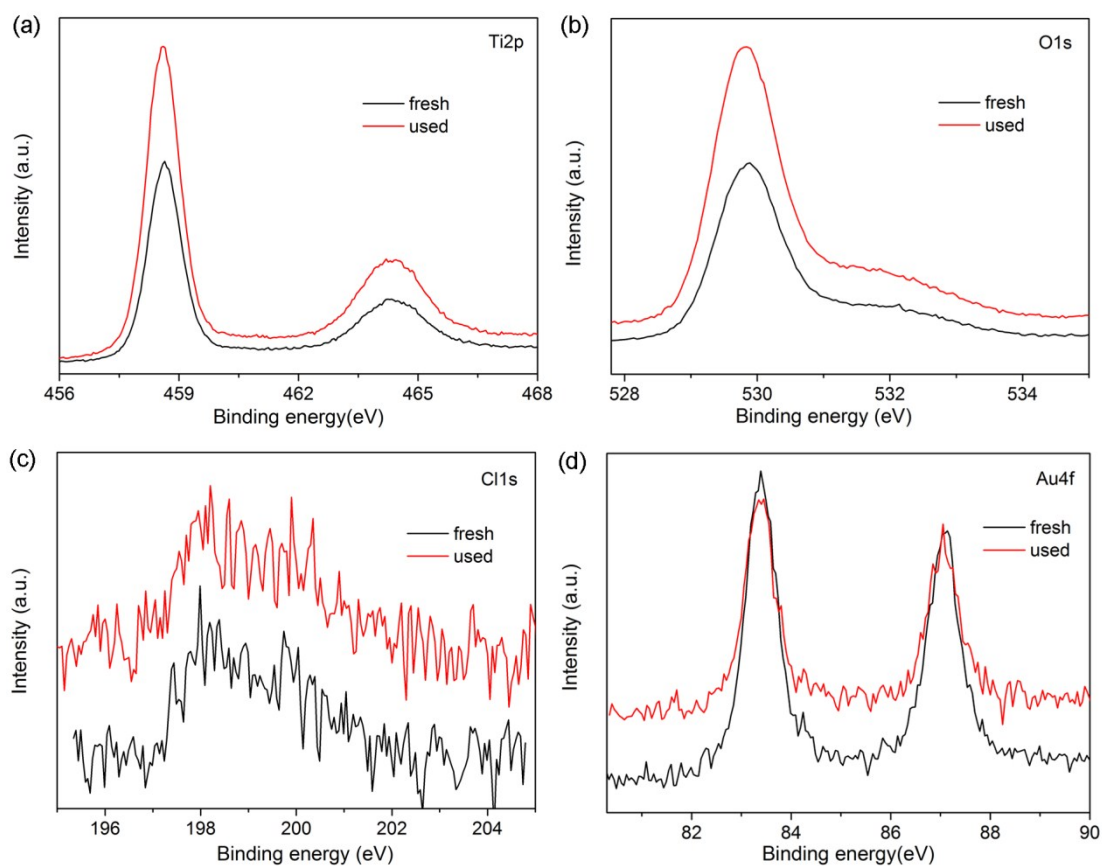


Fig. S1 (a) Ti 2p, (b) O 1s, (c) Cl 1s and (d) Au 4f XPS spectra of the fresh and used  $\text{Ti}^{3+}$  doped  $\text{Au/Cl-TiO}_2$  mesocrystals

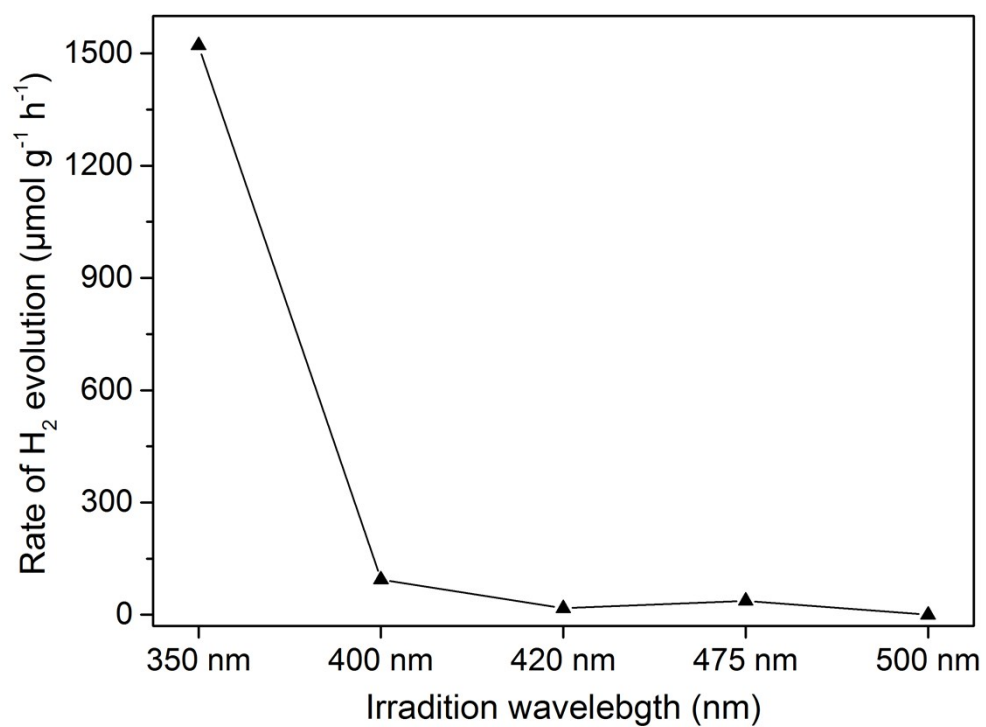


Fig. S2 The wavelength dependent hydrogen production activities of Ti<sup>3+</sup> doped Au/Cl-TiO<sub>2</sub> mesocrystals