Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Supplementary information

New Insights into the Plasmonic Enhancement for Photocatalytic H_2 Production by Cu-TiO_2 upon Visible Light Illumination

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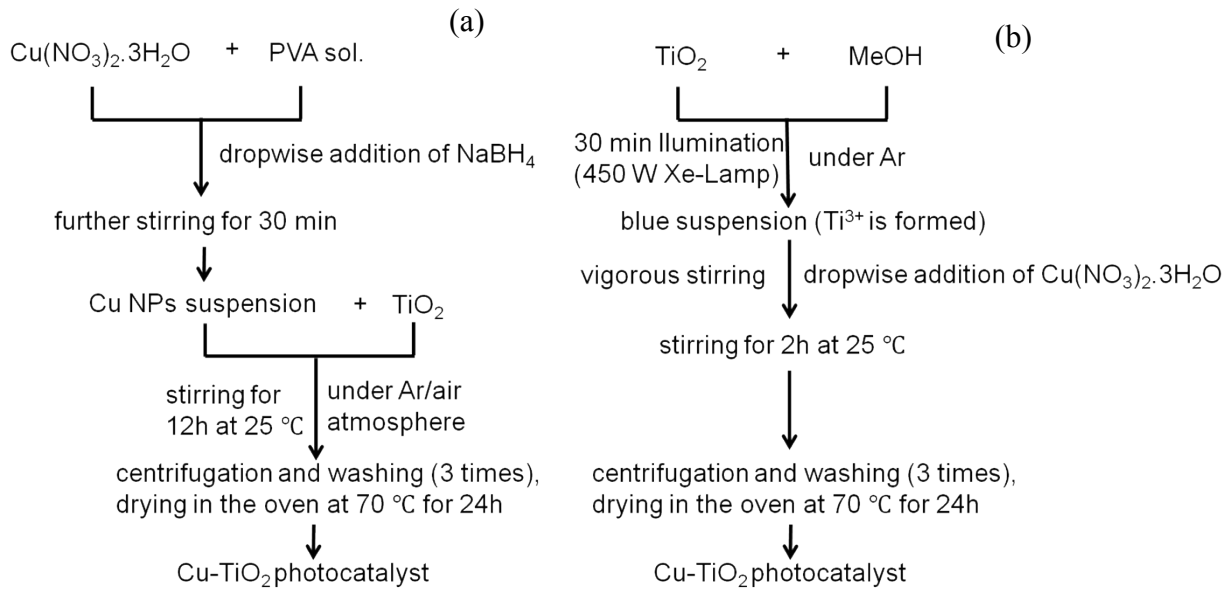

Figure S1. Schematic illustration of the Cu-TiO_2 preparation via (a) SIM and (b) PD methods.

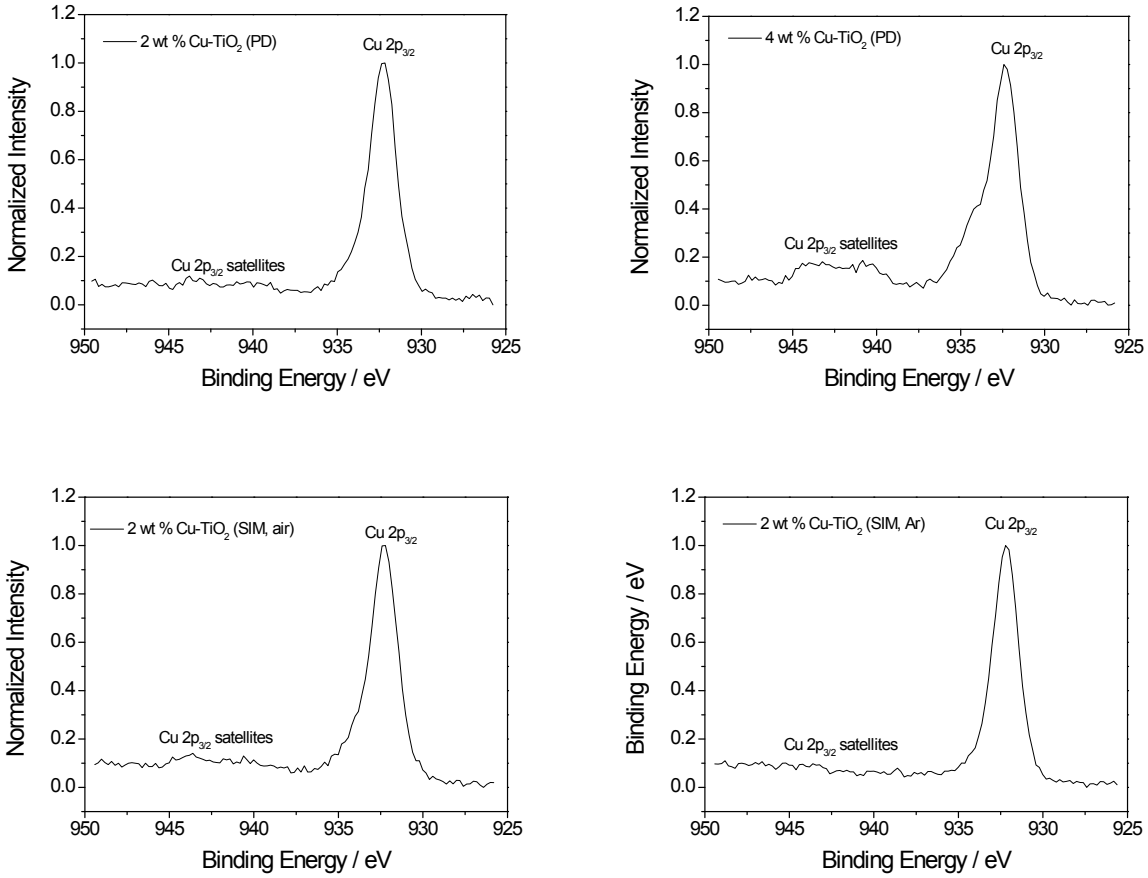

Figure S2. XPS detail spectrum of the Cu $2p_{3/2}$-line for samples

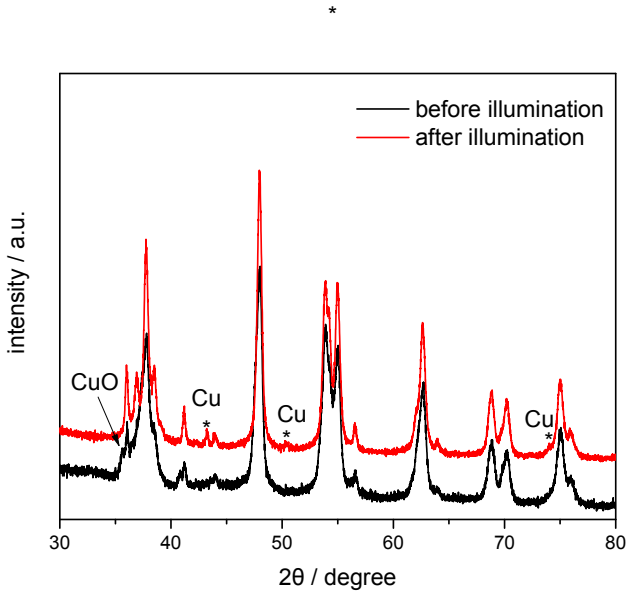

Figure S3. XRD patterns of Cu-TiO_2 (SIM) photocatalysts characterized before (black) and after (red) visible light illumination.

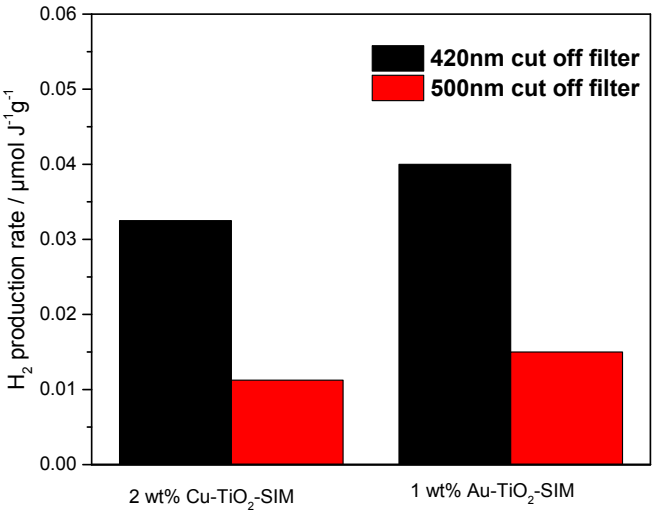

Figure S4. Normalized photocatalytic H_2 evolution rates obtained upon visible light illumination employing 2 wt% Cu-TiO_2 and 1wt% Au-TiO_2 photocatalysts.

Table S1: Photocatalytic H_2 evolution rates from CH_3OH/H_2O mixtures measured under UV-Vis and visible-light illumination employing different photocatalysts.

Catalyst	**H_2 evolution rate / mmolg^{-1}h^{-1}**		
--	**UV-Vis**	**Vis (≥ 420 nm)**	**Vis (≥ 500 nm)**
Cu NPs	0	0	0
Cu-SiO_2	0	0	0