

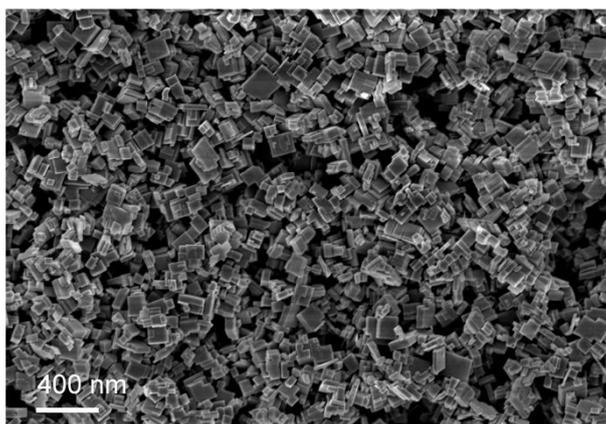
# Supporting Information for

## Strong Visible Light Absorption and Abundant Hotspots in Au-Decorated WO<sub>3</sub> Nanobricks for Efficient SERS and Photocatalysis

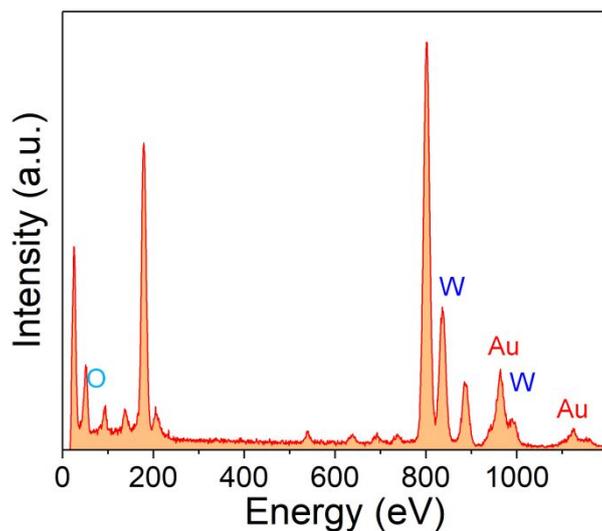
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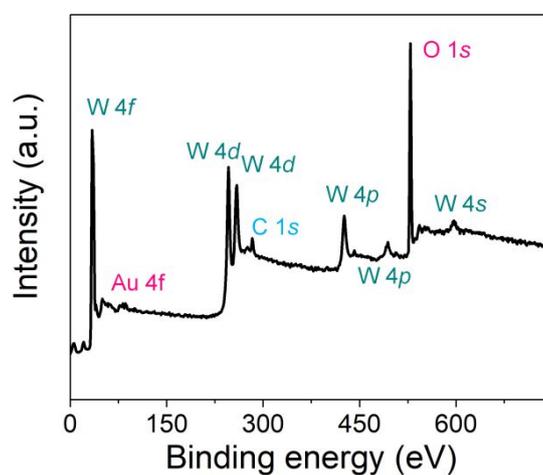
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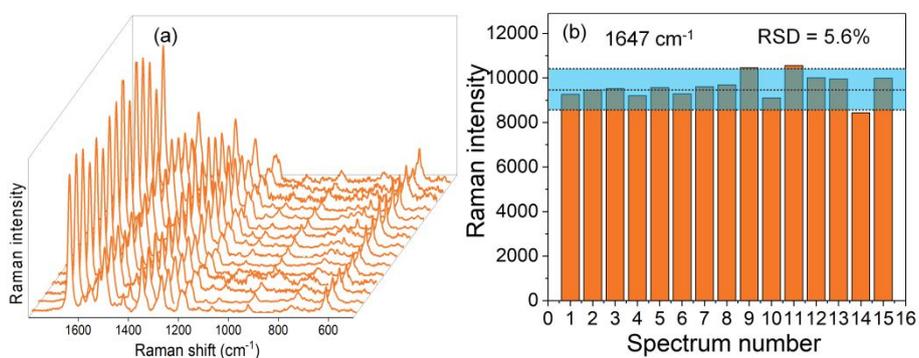
**Figure S1.** Low-magnification SEM image of WO<sub>3</sub> nanobricks.



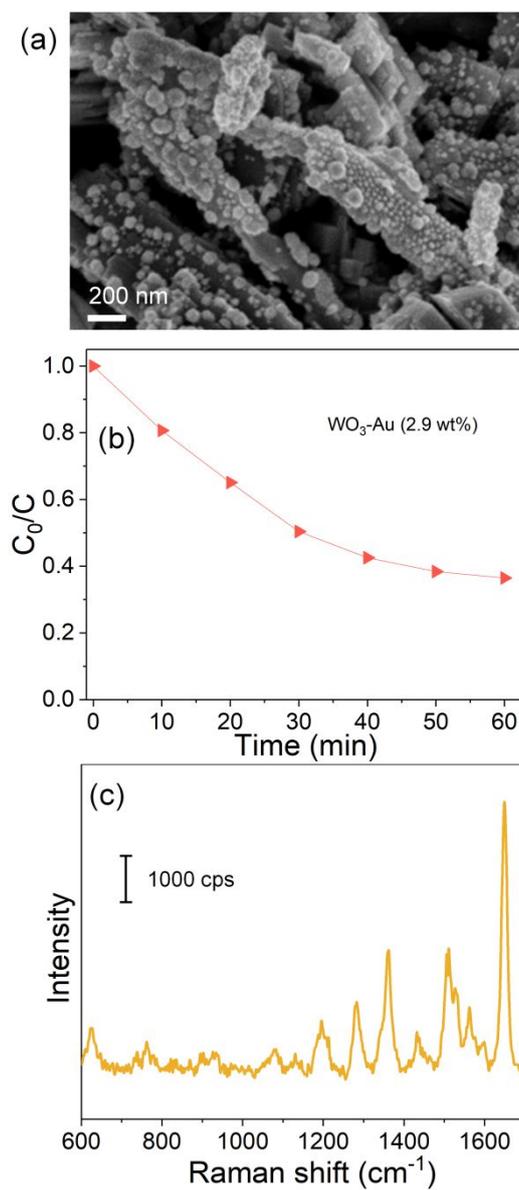
**Figure S2.** EDS spectrum of Au-decorated  $\text{WO}_3$  hybrids.



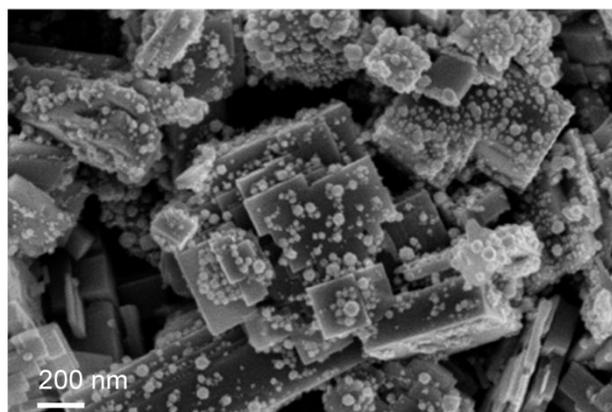
**Figure S3.** XPS survey of  $\text{WO}_3$ -Au hybrids.



**Figure S4.** (a) SERS spectra collected at 15 random points on  $\text{WO}_3$ -Au (2.1 wt%) substrates. (b) Raman intensities at  $1647 \text{ cm}^{-1}$  measured from 15 random points.



**Figure S5.** (a) SEM image of  $\text{WO}_3\text{-Au}$  (2.9 wt%) hybrids. (b) Photodegradation curve of RhB in the presence of  $\text{WO}_3\text{-Au}$  (2.9 wt%) hybrids. (c) Raman spectra of RhB ( $10^{-6}$  M) absorbed on  $\text{WO}_3\text{-Au}$  (2.9 wt%) hybrids.



**Figure S6.** SEM image of WO<sub>3</sub>-Au (2.1 wt%) after 30 hrs of photocatalytic reaction.