

Supporting Information

for

Palladium nanoparticles anchored to anatase TiO₂ for enhanced surface plasmon resonance-stimulated, visible-light-driven photocatalytic activity

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Additional experimental data

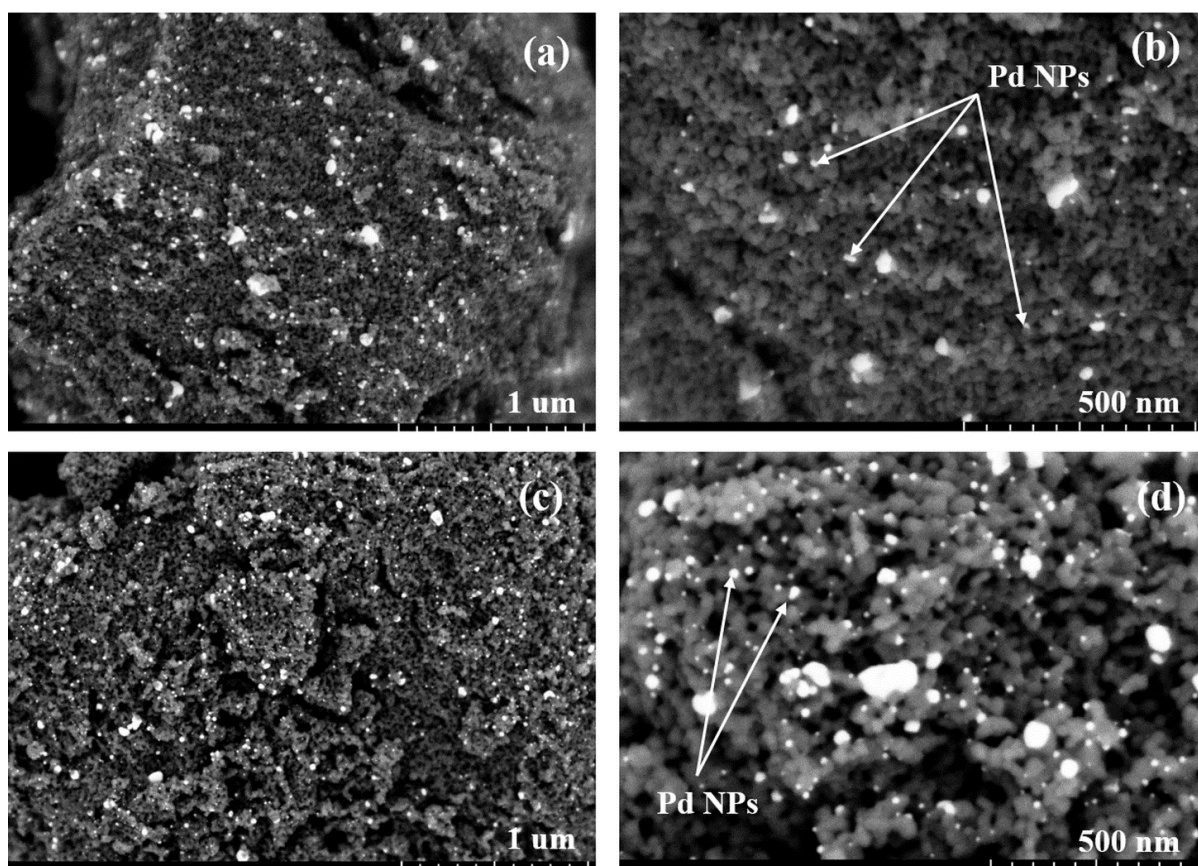


Figure S1: FESEM images of (a,b) 1.0 wt % Pd/TiO₂ and (c,d) 3.0 wt % Pd/TiO₂.

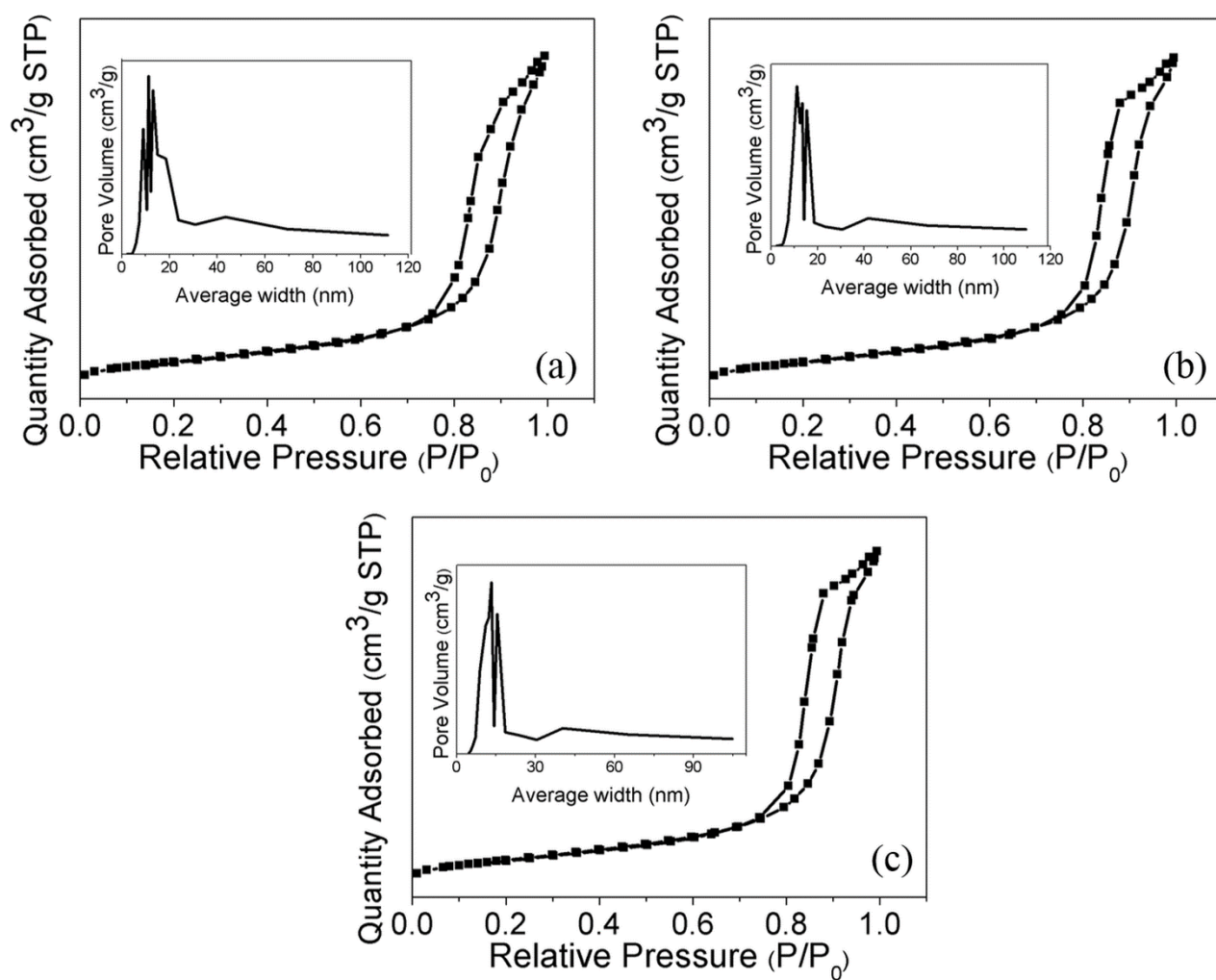


Figure S2: Adsorption–desorption isotherms of (a) TiO_2 , (b) 1.0 wt % Pd/TiO_2 , (c) 3.0 wt % Pd/TiO_2 and the inset is the pore size distribution.

Table S1: The BET surface area, average pore size and pore volume of TiO₂ and different Pd loadings.

	BET surface area (m ² /g)	Average pore size (nm)	Pore volume (cm ³ /g)
anatase TiO ₂	52.2374	12.9256	0.2098
0.5 wt % Pd/TiO ₂	46.6761	14.3101	0.2031
1.0 wt % Pd/TiO ₂	48.7703	12.9295	0.1949
3.0 wt % Pd/TiO ₂	48.6139	13.0052	0.1978

Table S2: Photocatalytic degradation kinetic parameters of AMX for TiO₂, 0.5 wt % Pd/TiO₂, 1.0 wt % Pd/TiO₂ and 3.0 wt % Pd/TiO₂.

	First Order Kinetics			
	TiO ₂	0.5 wt % Pd/TiO ₂	1.0 wt % Pd/TiO ₂	3.0 wt % Pd/TiO ₂
R ²	0.9983	0.9901	0.9811	0.9845
k	0.00107	0.01161	0.00553	0.00608

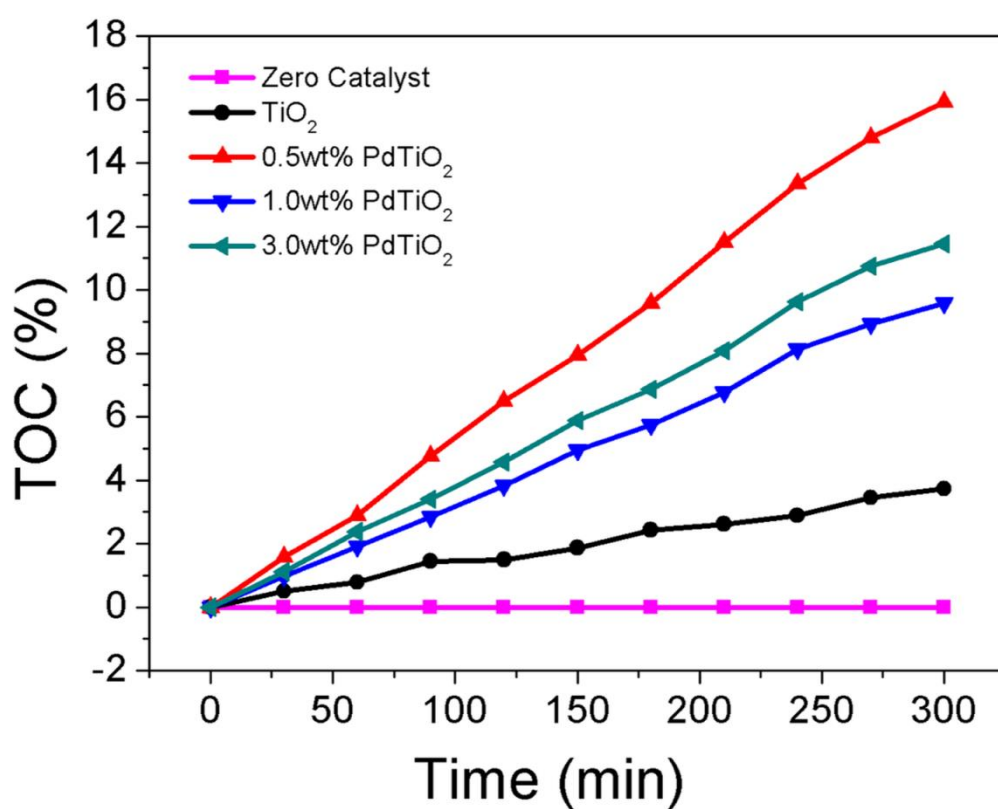


Figure S3: Percentage mineralization of AMX.