
HYDROGEN PRODUCTION BY PHOTOCATALYTIC DECOMPOSITION OF WATER BY MEANS OF TiO₂ NANOTUBES DECORATED WITH PLASMONIC BIMETALLIC NANOPARTICLES

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Received: 12/22/2025; accepted: 04/06/2026; published online: 04/16/2026

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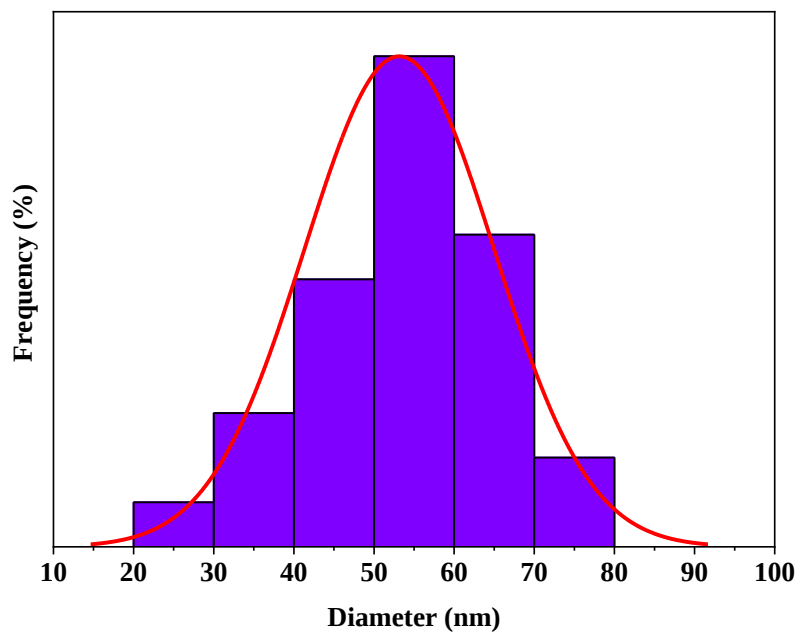


Figure 1S. Histogram distribution of external diameter of TiO_2 nanotubes

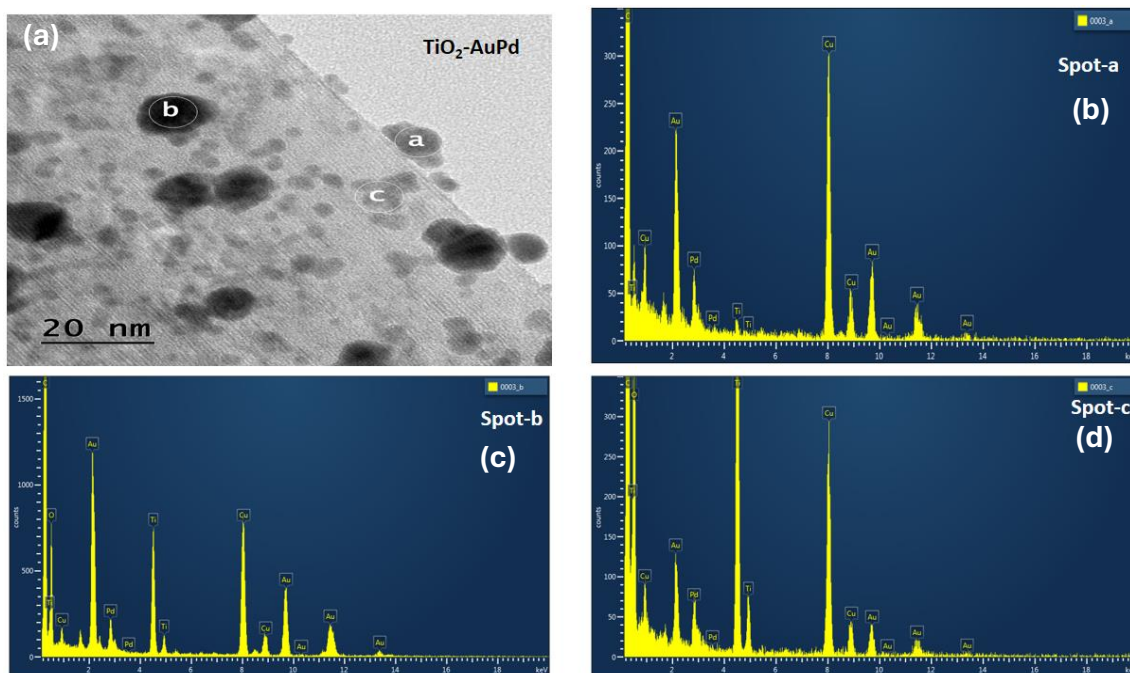
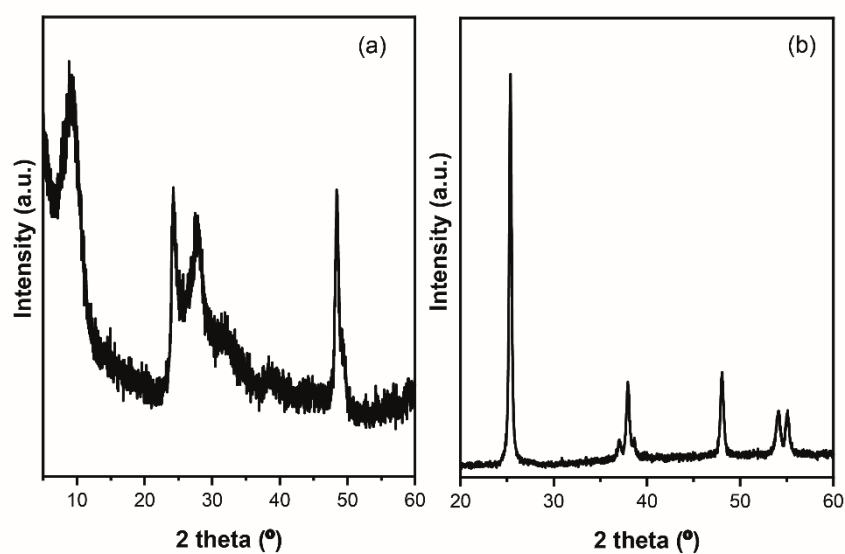
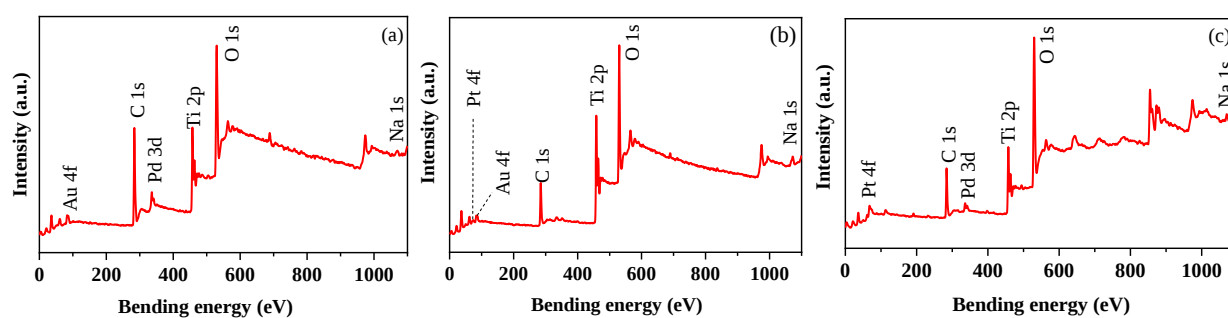


Figure 2S. (a) TEM images of titanium nanotubes supported with AuPd bimetallic nanoparticles; (b-d) X-ray energy dispersion spectroscopy, obtained at different points of the samples

Table 1S. Chemical analysis of the catalysts

Catalyst	Real metal load ^a / wt.%	Molar ratio / wt.%		
		Au	Pd	Pt
AuPd-TiO ₂	2.1	70.8	29.2	0
AuPt-TiO ₂	1.9	72.7	0	27.3
PdPt-TiO ₂	1.8	0	43.7	56.3

^aMetal content measured by inductively coupled plasma optical emission spectrometer (ICP OES).

**Figure 3S.** X-ray diffraction pattern of (a) NaTiNTs and (b) AuPd-TiO₂ nanotubes**Figure 4S.** XPS survey scan of TiO₂ nanotubes: (a) AuPd-TiO₂; (b) AuPt-TiO₂; (c) PdPt-TiO₂

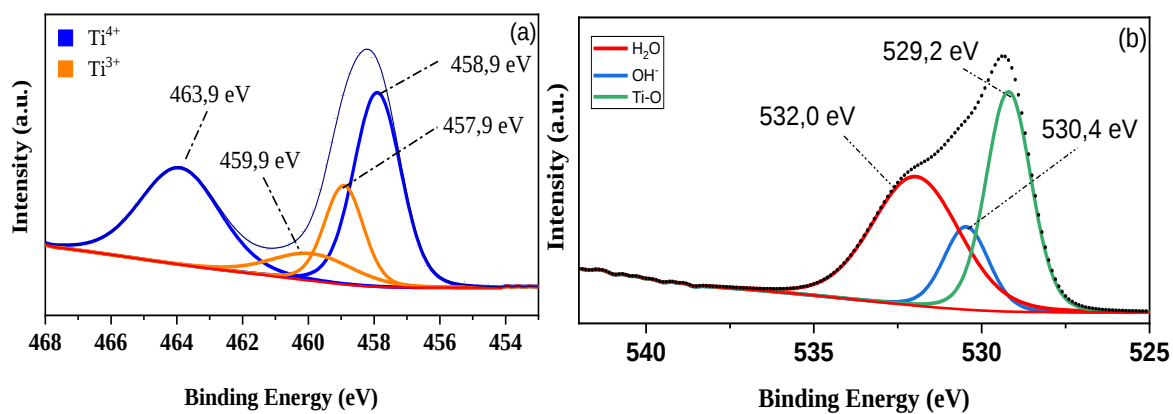


Figure 5S. XPS spectra of (a) Ti 2p and (b) O 1s signals for AuPd-TiO₂ nanotubes

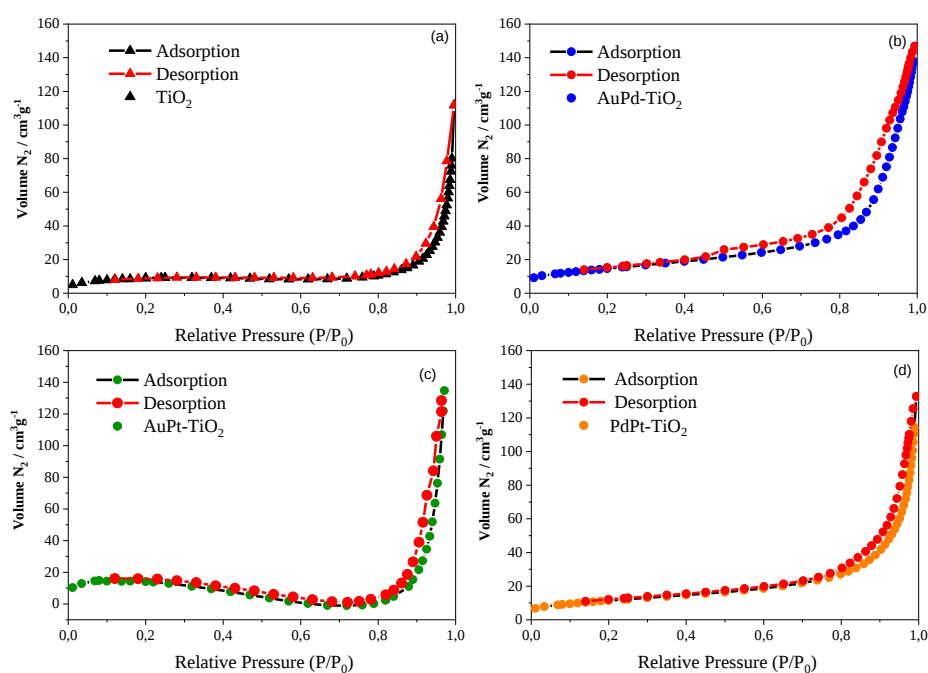


Figure 6S. N₂ adsorption/desorption isotherms (at room temperature) for (a) TiO₂; (b) AuPd-TiO₂; (c) AuPt-TiO₂; (d) PdPt-TiO₂