Comparison of TiO_2 and g-C_3N_4 2D/2D nanocomposites from three synthesis protocols for visible-light induced hydrogen evolution

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TGA

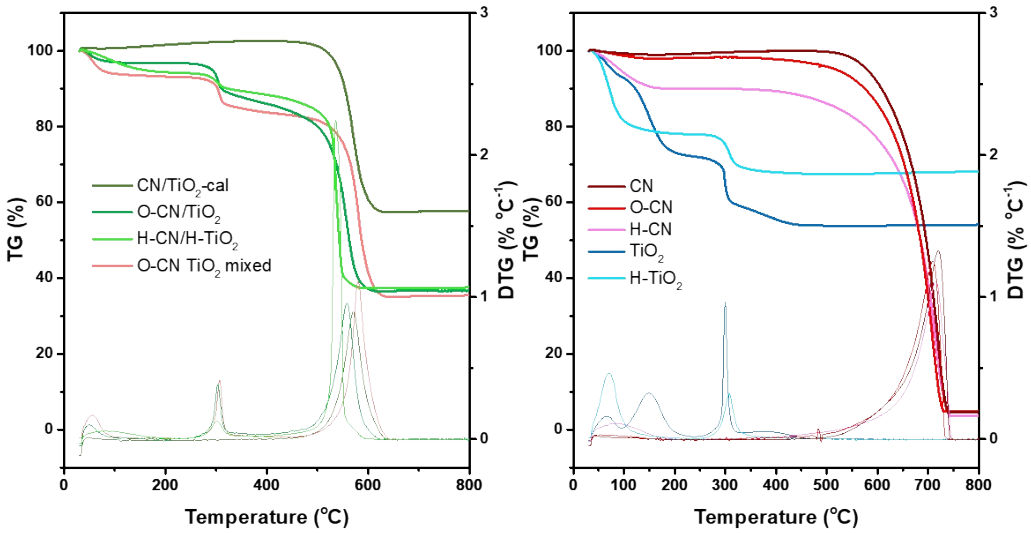

Figure S1. TGA and DTG curves of the three composite samples (O-CN/TiO_2, CN/TiO_2-cal and H-CN/H-TiO_2), the physically mixed sample (O-CN TiO_2 mixed) and the precursors (TiO_2, H-TiO_2, CN, O-CN and H-CN).

NITROGEN SORPTION

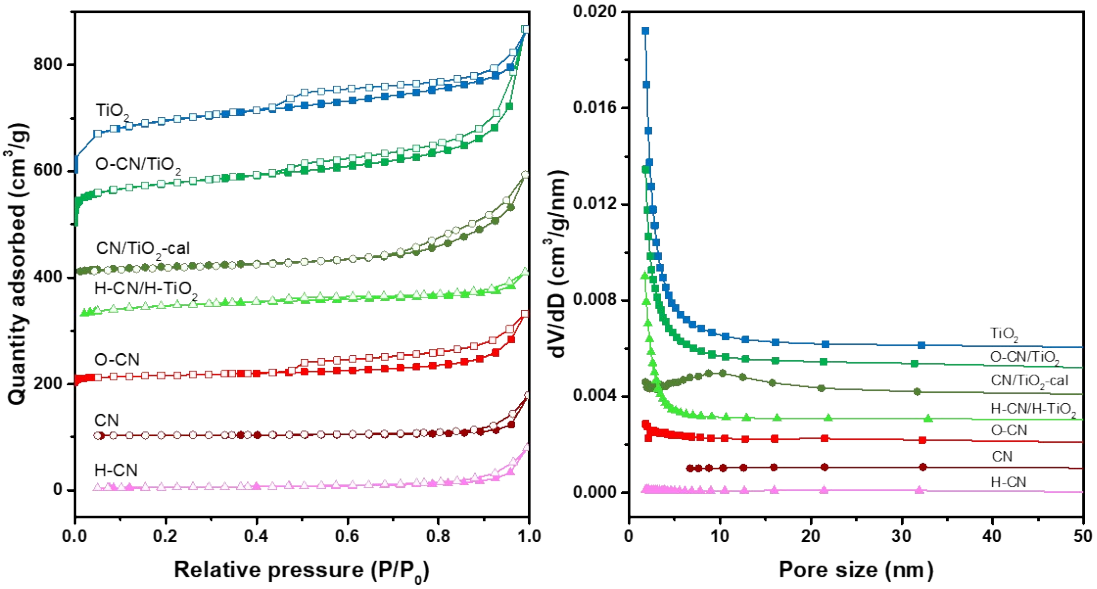

Figure S2. N_2 sorption isotherms (left) and pore size distributions (right) of the three composite samples (O-CN/TiO_2, CN/TiO_2-cal and H-CN/H-TiO_2) and the precursors (TiO_2, H-TiO_2, CN, O-CN and H-CN). The isotherms are offset by 100 $cm^3\ g^{-1}$ and the pore size distributions are offset by 0.001 $cm^3\ g^{-1}\ nm^{-1}$ respectively along the vertical axis for clarity.

SEM AND LOW-MAGNIFIED TEM IMAGES

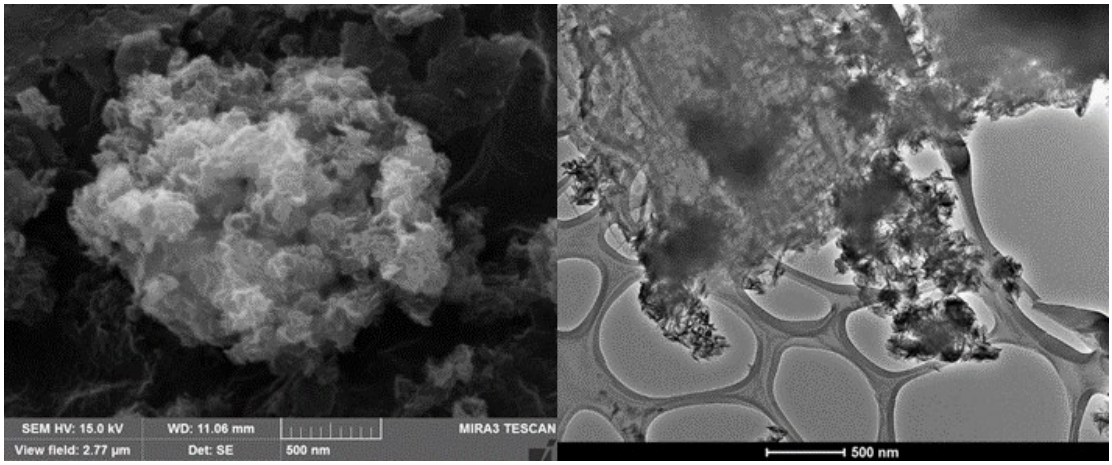

Figure S3. SEM image (left) and low-magnified TEM image (right) of O-CN/TiO_2.

STABILITY TEST

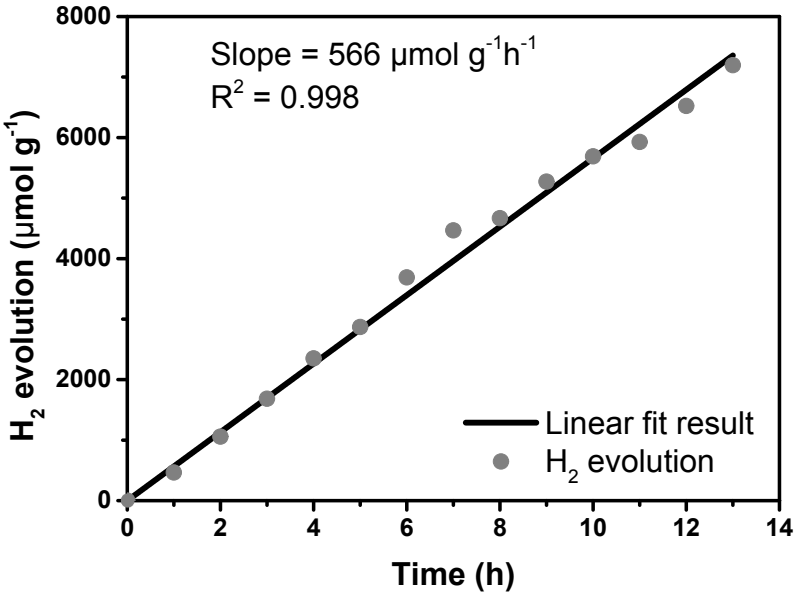

Figure S4. Stability test results for photocatalytic hydrogen evolution with O-CN/TiO_2 composite.