SUPPORTING INFORMATION

Table TS1. Comparison of H_2 evolution from g-C_3N_4 based hybrid structures in the literature and present work.

g-C_3N_4 Morphology	**Sacrificial agent**	**Wavelength (nm)**	**Lamp power (W)**	**Hydrogen evolution**	**Reference**
TiO2/Pt/g-C3N4	TEOA	≥420	300	178 μmol.h^{-1}	S1
Strontium pyroniobate/g-C_3N_4	Methanol	420	300	57.5 μmol.h^{-1}	S2
Ni(OH)$_2$-CdS/g-C_3N_4	Na_2S/Na_2SO_3	420	300	115.18 μmol.g^{-1}.h^{-1}	S3
g-PAN/g-C3N4	TEOA	>400	300	37 μmol.h^{-1}	S4
$Cd_{0.2}Zn_{0.8}S$/g-C_3N_4	Na_2S/Na_2SO_3	>420	300	208 μmol.h^{-1}	S5
$MgFe_2O_4$/g-C_3N_4	TEOA	>420	300	30.09 μmol.h^{-1}	S6
Ag_2O/g-C_3N_4	TEOA	>420	300	~34 μmol.h^{-1}	S7
$CaIn_2S_4$/g-C_3N_4	Na_2S/Na_2SO_3	420 nm	UV LEDs	102 μmol.g^{-1}.h^{-1}	S8
CdS/Au/g-C_3N_4	Methanol	>420	Not provided	19.02 μmol.g^{-1}.h^{-1}	S9
TiO_2/g-C_3N_4	NaI	365	8.3 mW/cm^2	45.6 μmol.h^{-1}	S10
Ni(OH)$_2$/g-C_3N_4	TEOA	≥420	300	240 μmol.g^{-1}.h^{-1}	S11
$ZnTiO_3$	TEOA	≥400	300	56.72 μmol.g^{-1}	Present work
ZNTCN20				120.09 μmol.g^{-1}	
ZNTCN60				295.88 μmol.g^{-1}	
g-C_3N_4				106.22 μmol.g^{-1}	

Table TS1

Table TS2. Kinetic rate constant data of all pollutants, pure $ZnTiO_3$, pure g-C_3N_4, $ZnTiO_3$/g-C_3N_4 with 20 and 60 wt% of g-C_3N_4 visible light irradiation toward degradation of MB, phenol, 4-chlorophenol and 4-nitrophenol pollutants. Rate constant for corresponding solution without photocatalysts are also provided for comparison.

Sample details	**Kinetic rate constant x 10^{-3} min^{-1}**			
	Methylene blue	**Phenol**	**4-chlorophenol**	**4-nitrophenol**
Without catalyst	0.23	0.31	0.46	0.32
$ZnTiO_3$	2.51	0.95	0.91	2.83
g-C_3N_4	2.69	2.29	3.06	9.91
$ZnTiO_3$/g-C_3N_4 20wt%	3.62	10.17	7.04	15.32
$ZnTiO_3$/g-C_3N_4 60wt%	8.53	34.37	17.39	30.64
P-25 (TiO_2)	2.45	1.25	0.81	2.08

Table TS2

Figure S1 The kinetic plots for $ZnTiO_3$, g-C_3N_4 and $ZnTiO_3$/g-C_3N_4 samples are provided in (E) MB, (F) Phenol, (G) 4-chlorophenol and (H) 4-nitrophenol. The photocatalytic activity of commercial P-25 (TiO_2) powder is given for comparison.

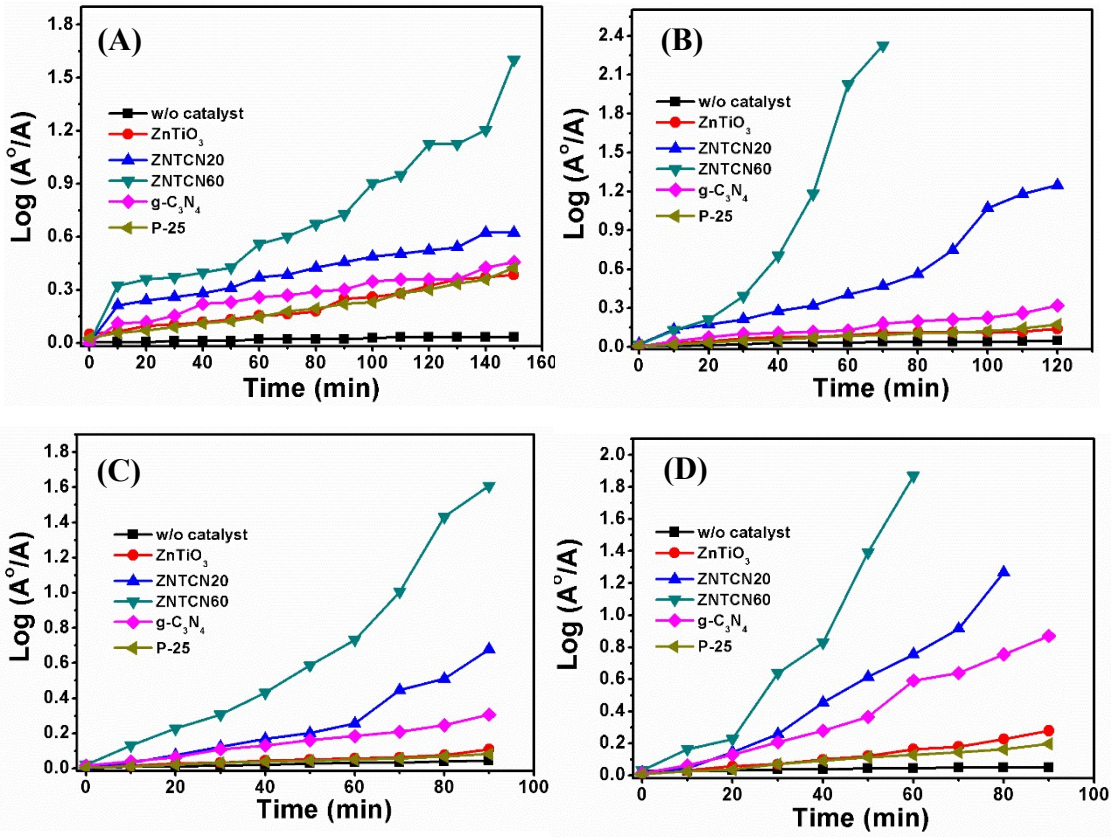

Figure S1 (A to D)

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