Electronic Supplementary Information

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Construction of NiCo-LDH/g-C_3N_4 heterojunctions as efficient photocatalysts for enhanced degradation of tetracycline hydrochloride and hydrogen evolution

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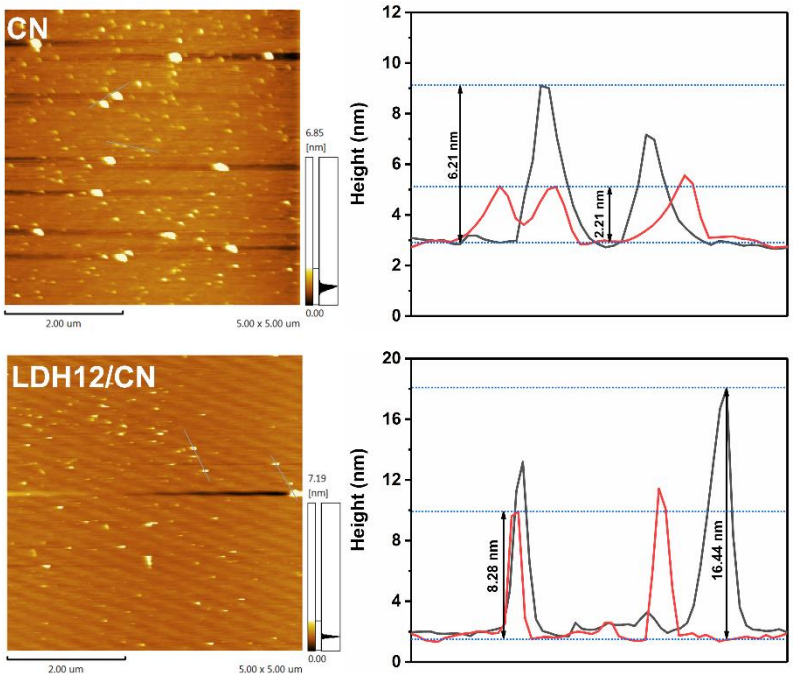

Fig. S1 AFM images of CN and LDH12/CN samples.

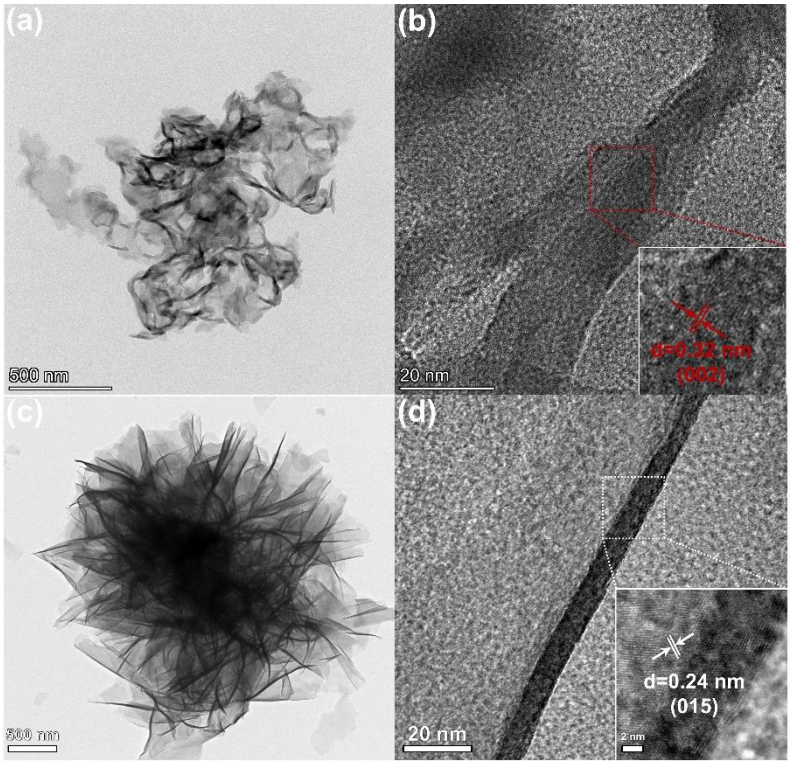

Fig. S2 TEM images and HRTEM images of pure CN (a-b) and pure LDH (c-d).

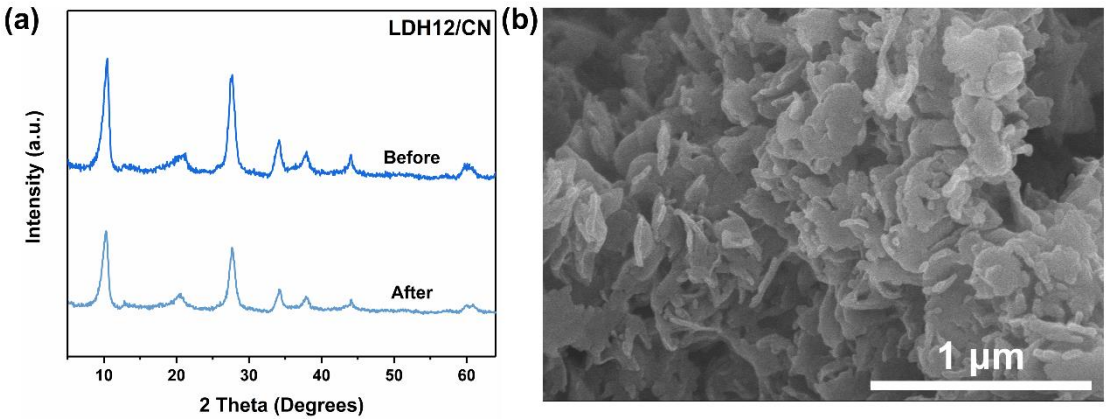

Fig. S3 The XRD pattern of the LDH12/CN nanocomposite before and after the photocatalytic reaction (a), SEM image of the LDH12/CN nanocomposite after the photocatalytic reaction (b).

Table S1. The lattice spacing of the CN and LDH.

Sample	2θ	Lattice plane	The spacing
CN	27.5°	(002)	0.32 nm
LDH	37.8°	(015)	0.24 nm

Table S2. Comparison of the H_2 revolution rates with other photocatalysts.

Catalyst	Light source*	Sacrificial reagent	H_2 yield ($\mu mol \cdot g^{-1}$)	Reaction time (h)	Ref.
LDH12/CN	λ>400 nm 300 W Xe	15 vol.% TEOA	1355.0	3	This work
g-C_3N_4/Zn-Ti LDH	λ>420 nm 300 W Xe	20 vol.% CH_3OH	809.35	5	[S1]
NiAl-LDH/g-C_3N_4/Ag_3PO_4	250 W quartz tungsten halogen lamp	10 vol.% CH_3OH	1072.0	4	[S2]
Zn-Cr-LDH-g-C_3N_4	λ>420 nm	10 vol.% TEOA	778.5	5	[S3]

Fe-Ni-LDH/g-C_3N_4	300 W Xe / 300 W Xe	10 vol.% TEOA	1348	4	[S4]
ACN-550	190nm < λ < 1100 nm 300 W Xe	10 vol.% TEOA	173.3	6	[S5]

*Xe, xenon lamp.

Notes and references

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