Supporting Information

MOF-Derived porous TiO_2 decorated with n-type Cu_2O for efficient photocatalytic H_2 evolution

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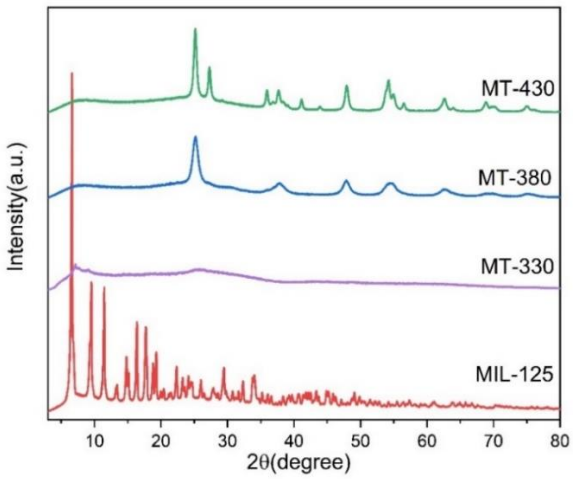

Fig. S1. XRD patterns of MIL-125, MT-330, MT-380 and MT-430 samples.

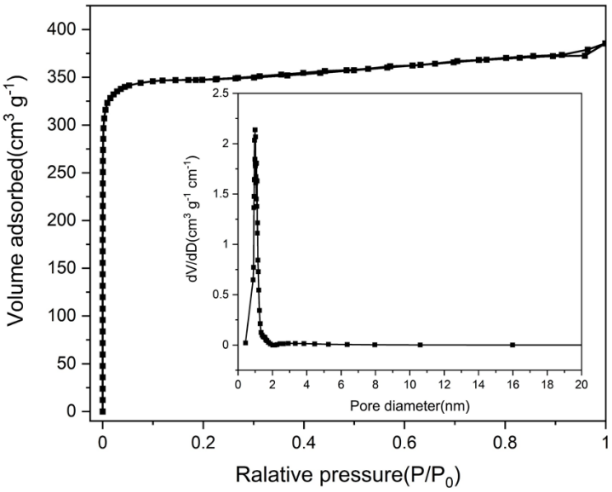

Fig. S2. N_2 adsorption–desorption isotherms curves and pore size distribution curves (insets) of MIL-125.

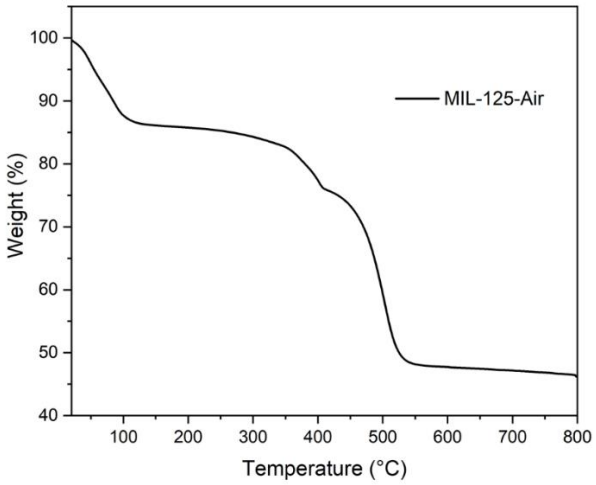

Fig. S3. TGA curves of MIL-125.

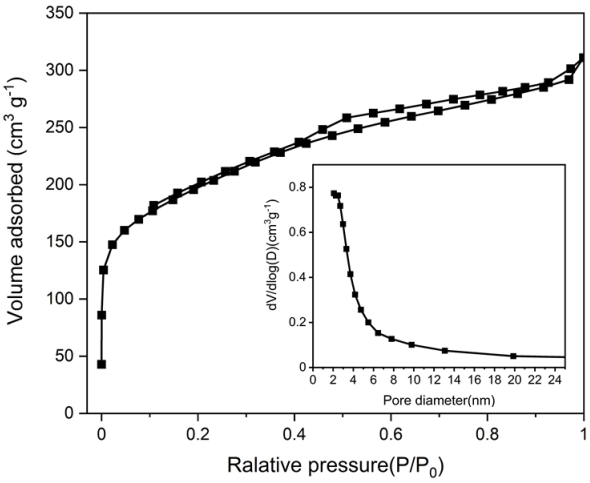

Fig. S4. N_2 adsorption–desorption isotherms curves and pore size distribution curves (insets) of MT-330.

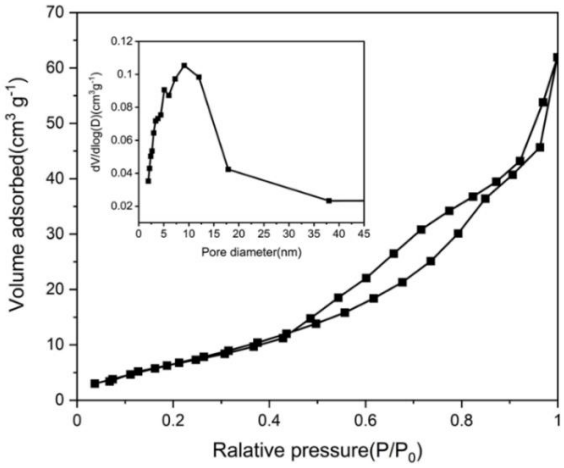

Fig. S5. N_2 adsorption–desorption isotherms curves and pore size distribution curves (insets) of MT-430.

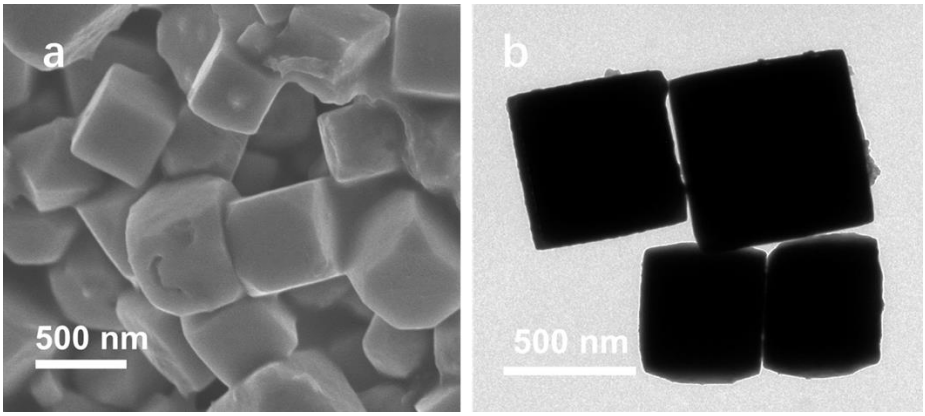

Fig. S6. (a) SEM and (b) TEM images of Cu_2O.

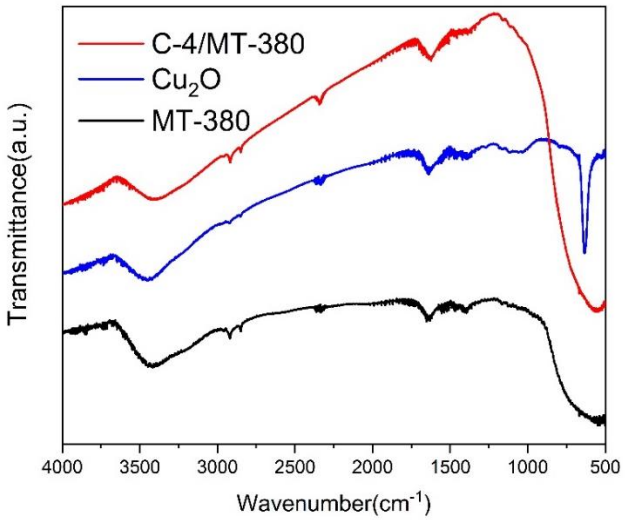

Fig. S7. FT–IR spectra of Cu_2O, TiO_2, and C-4/MT-380.

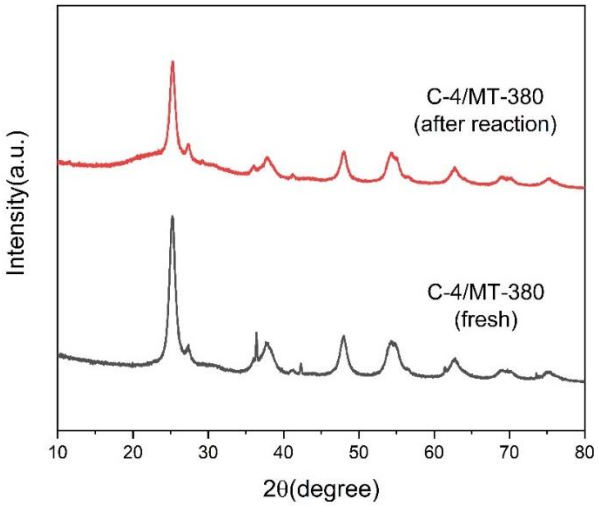

Fig. S8. XRD patterns of C-4/MT-380 and recycled C-4/MT-380 samples.

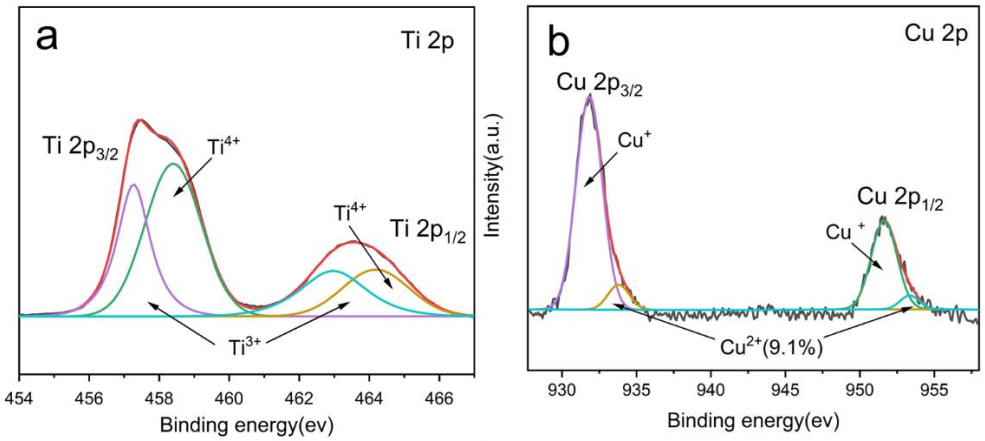

Fig. S9. Ti 2p (a) and Cu 2p (b) spectrum of recycled C-4/MT-380.

Table S1. The ICP data of catalysts.

Samples	Cu (mg/L)	Cu_2O (wt%)
C-2/MT-380	4.322	2.3%
C-4-MT-380	7.752	4.2%
C-6/MT-380	11.71	6.3%

Table S2. Summary of the as-prepared samples for photocatalytic hydrogen production.

Catalysts	H_2 evolution (mmol h^{-1} g^{-1})
MT-380	1.50
Cu_2O	0.59
C-2/MT-380	8.00
C-4/MT-380	14.39
C-6/MT-380	10.09
P25	6.56
Cu_2O/P25	10.16