

Electronic Supplementary materials:

**Photocatalytic reduction of CO<sub>2</sub> with H<sub>2</sub>O to CH<sub>4</sub> over ultrathin  
SnNb<sub>2</sub>O<sub>6</sub> 2D nanosheets under visible light irradiation**

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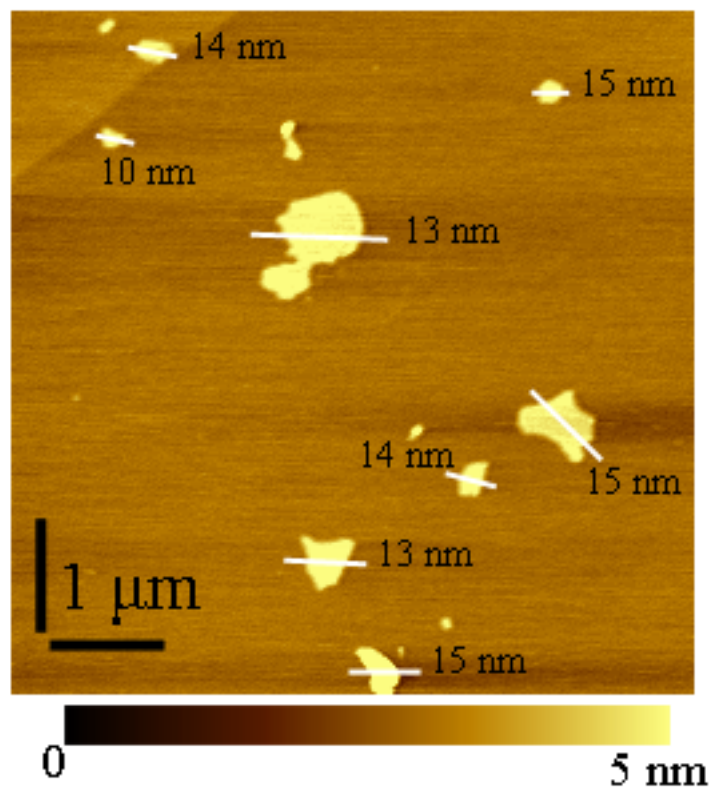


Fig. S1 AFM images of SN-28-4

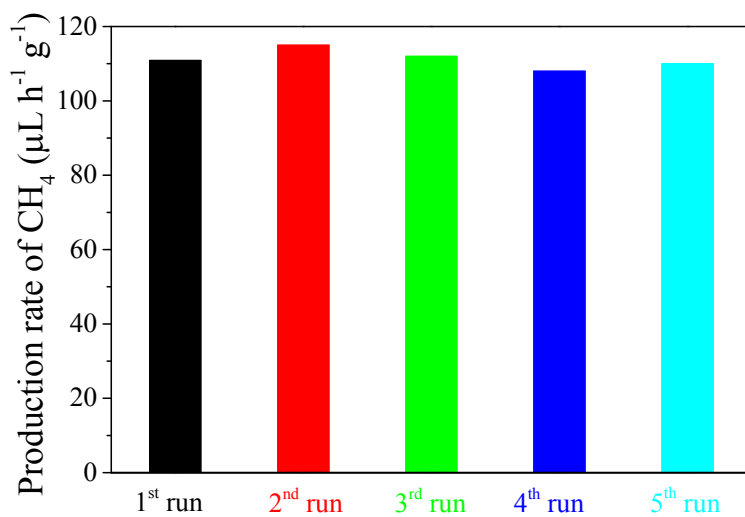
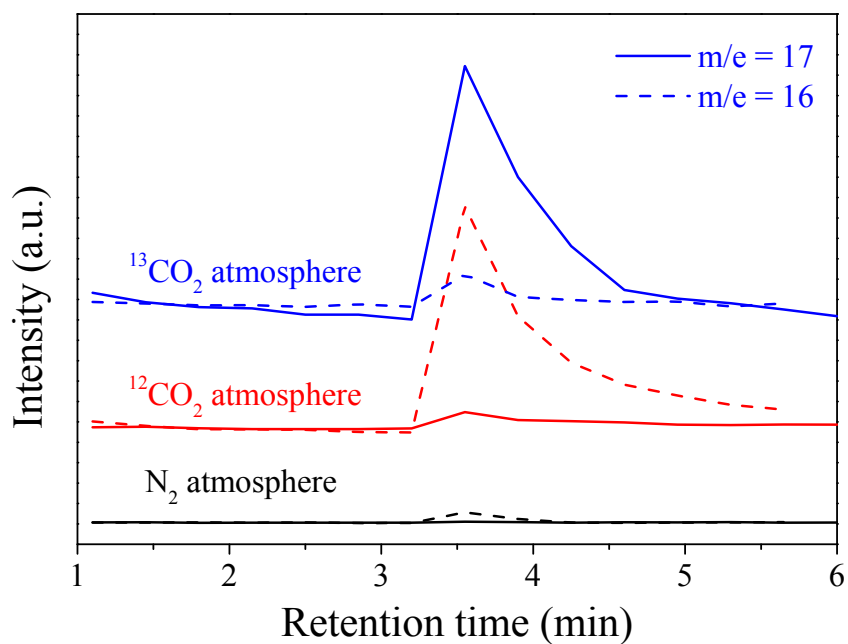
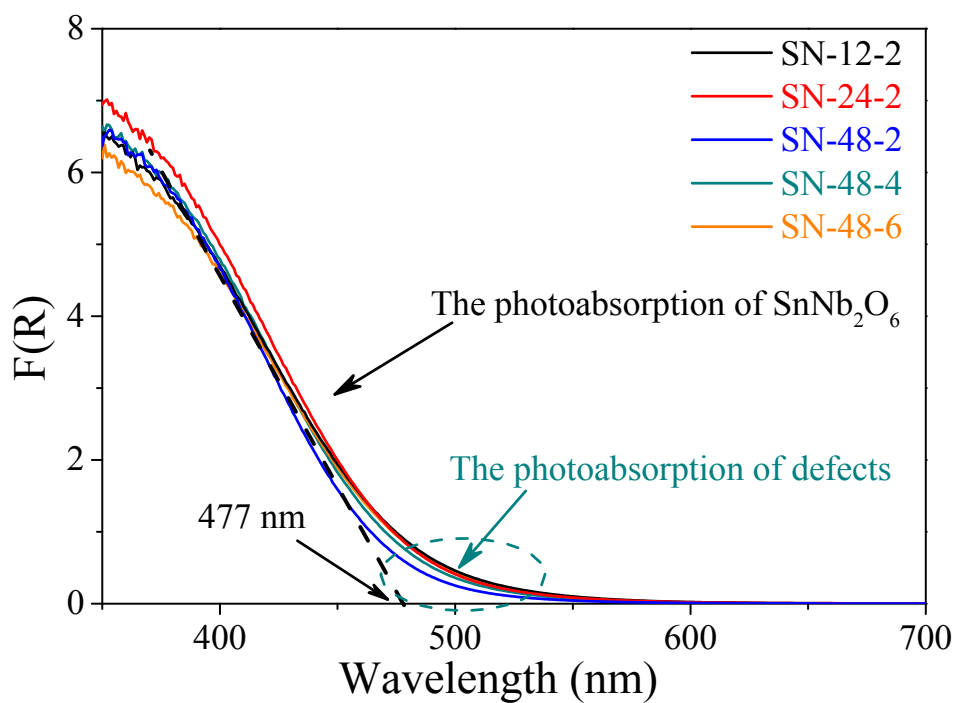


Fig. S2 The stability of photocatalytic activities of SN-48-2



**Fig. S3** The mass chromatography spectra of  $^{13}\text{CH}_4$  ( $m/e = 17$ ) and  $^{12}\text{CH}_4$  ( $m/e = 16$ ) generated from SN-48-2 sample under  $\text{N}_2$ ,  $^{12}\text{CO}_2$ , and  $^{13}\text{CO}_2$  atmospheres.



**Fig. S4** Enlarged DRS of the as-prepared samples

**Table S1** The other possible products of the as-prepared samples during the photocatalytic reduction of CO<sub>2</sub> (Unit:  $\mu\text{L h}^{-1} \text{g}^{-1}$ ).

Sample	CO	H <sub>2</sub>	O <sub>2</sub>	Other hydrocarbon
SN-24-2	11.2	44.8	19.3	ND <sup>a</sup>
SN-48-2	9.0	17.9	45.4	ND
SN-48-4	9.0	9.0	22.7	ND

<sup>a</sup> ND: No detected