Electronic Supplementary Information

A Kirkendall effect to oxynitride nanotube towards visible light driven conversion of CO_2 into CH_4

P. Zhou,[a] H. L. Gao,[b] S. C. Yan,[bc] and Z. G. Zou [abc]

[a] National Laboratory of Solid State Microstructures, Eco-Materials and Renewable Energy Research Center (ERERC), School of Physics, Nanjing University, No. 22, Hankou Road, Nanjing, Jiangsu 210093, PR China.
[b] Collaborative Innovation Center of Advanced Microstructures, College of Engineering and Applied Sciences, Nanjing University, No. 22, Hankou Road, Nanjing, Jiangsu 210093, PR China. E-mail: yscfei@nju.edu.cn.
[c] Jiangsu Key Laboratory for Nano Technology, Nanjing 210093, P.R.China

Table 1 Elements atom content percentage of ZnGaNO nanotube and ZnGaNO-SSR derived from EDS analysis

	Zn atom%	Ga atom%	N atom%	O atom%
ZnGaNO nanotube	15.8%	32.0%	28.8%	23.4%
ZnGaNO-SSR	9.2%	39.3%	37.3%	14.1%

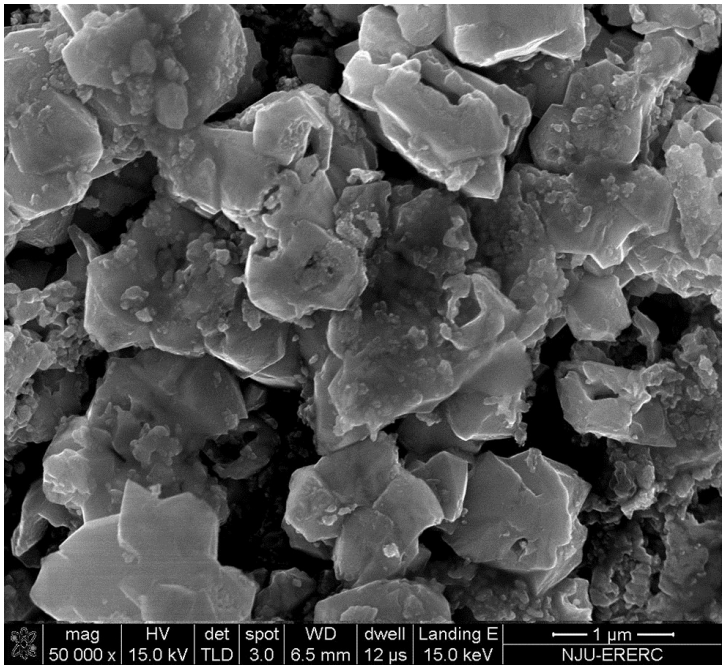

Figure S1 SEM image of ZnGaNO-SSR

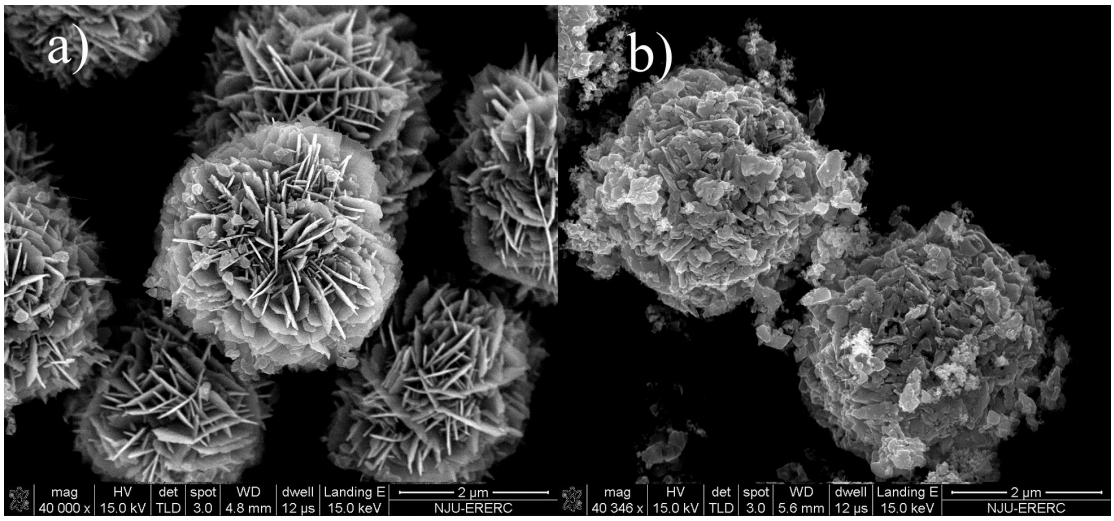

Figure S2 SEM images of ZnO nanoflower (a) and ZnGaNO nanoflower (b).

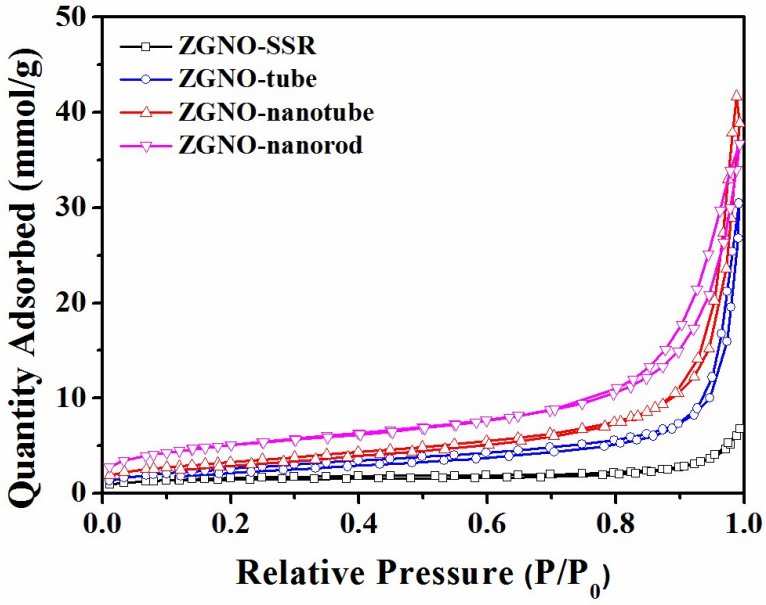

Figure S3 The nitrogen adsorption-desorption isotherms of ZGNO-SSR, ZGNO-tube, ZGNO-nanotube and ZGNO-nanorod.

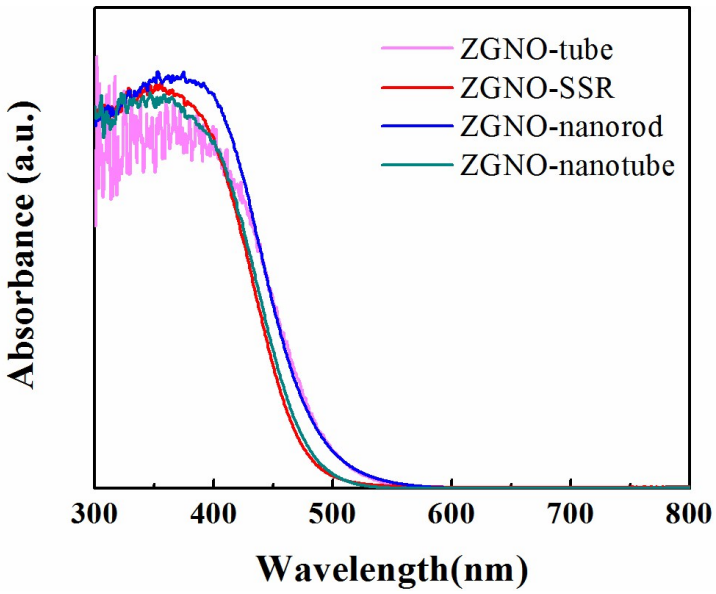

Figure S4 UV-Vis absorption spectrum of ZGNO-SSR, ZGNO-tube, ZGNO-nanotube and ZGNO-nanorod.

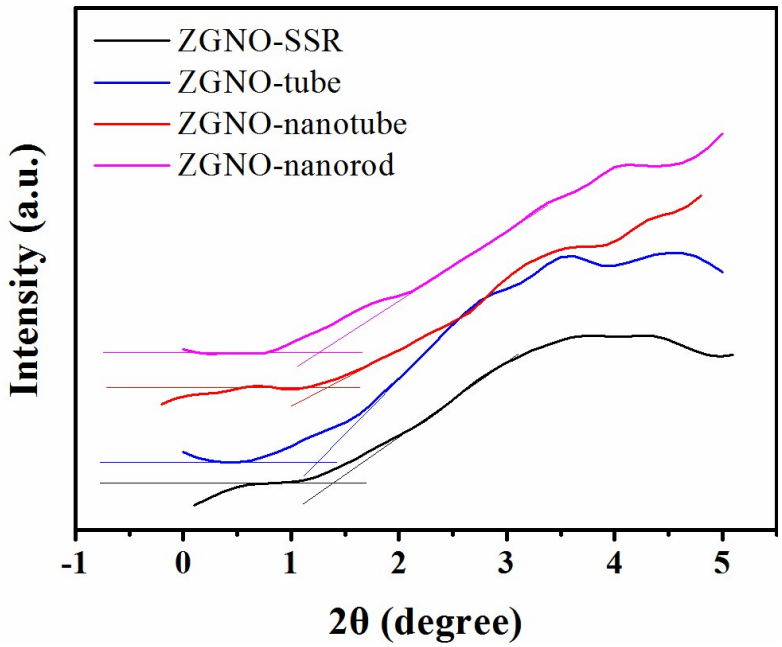

Figure S5 UV-Vis absorption spectrum of ZGNO-SSR, ZGNO-tube, ZGNO-nanotube and ZGNO-nanorod.