The correlation between the surface defects and the behavior of hydrogen adsorption over ZnO under UV light irradiation

Zhongming Wang$^{a,b}$, Kun Wang$^{a,b}$, Hong Wang$^{a,b}$, Xun Chen$^a$, Wenxin Dai$^{a,b,*}$, Xianzhi Fu$^a$*

$^a$ Research Institute of Photocatalysis, State Key Laboratory of Photocatalysis on Energy and Environment, Fuzhou University, Fuzhou, 350002, China

$^b$ Key Laboratory of Eco-materials Advanced Technology (Fuzhou University), Fujian Province University, Fuzhou, 350002, China

*Corresponding author: Wenxin Dai & Xianzhi Fu

Tel & Fax: +86-591-83779083

E-mail: daiwenxin@fzu.edu.cn
S1. Spectrogram of the light source used in the experiment

Fig.S1 Spectrogram of the light source used in the experiment

S2. The selected area electron diffraction pattern of Z-3-Air and Z-3-N$_2$ samples

The existence of the various crystal planes can be confirmed by the selected area electron diffraction pattern (SAED) \cite{a} in Fig.S2. The inset exhibited the \{100\}, \{002\}, \{101\}, \{110\}, \{103\} and \{112\} diffraction spots in selected area diffraction, indicating that these crystal planes exposed in the Z-3-Air and Z-3-N$_2$ samples. However, the SAED image could not explain the dominant growth of a certain crystal plane.

Fig.S2 The selected area electron diffraction pattern of Z-3-Air and Z-3-N$_2$ samples
References