

## Supplementary Material

### Preparation of CdS-BaZrO<sub>3</sub> Heterojunction for Enhanced Photocatalytic Water-Splitting Hydrogen Production

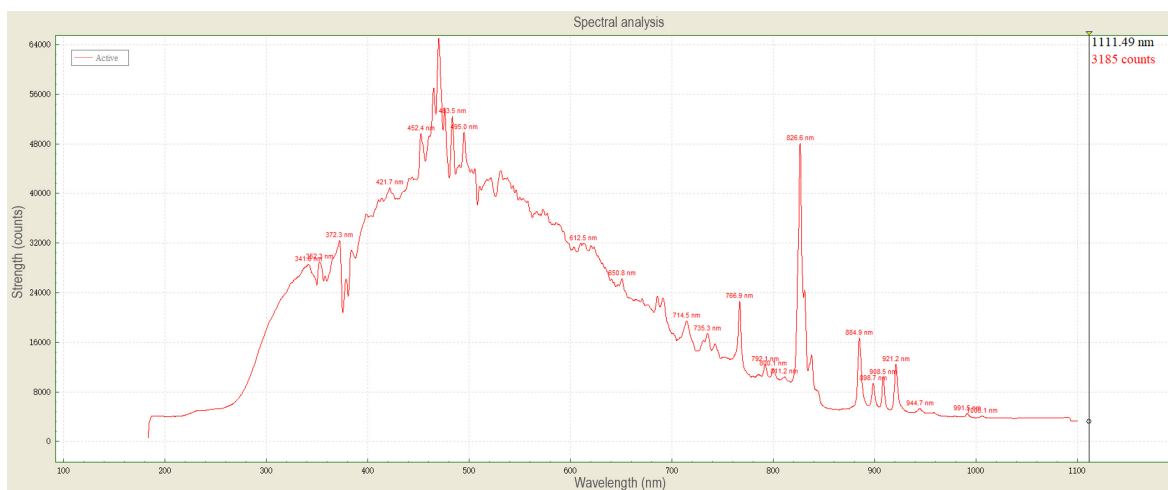
Suhaib Shuaib Adam Shuaib \*, Mengdie Cai \*, Jun Zhang, Tengfei Ding, Pengcheng Wang, Yongshuai Chen and Song Sun

School of Chemistry and Chemical Engineering, Anhui University, Hefei 230601, China

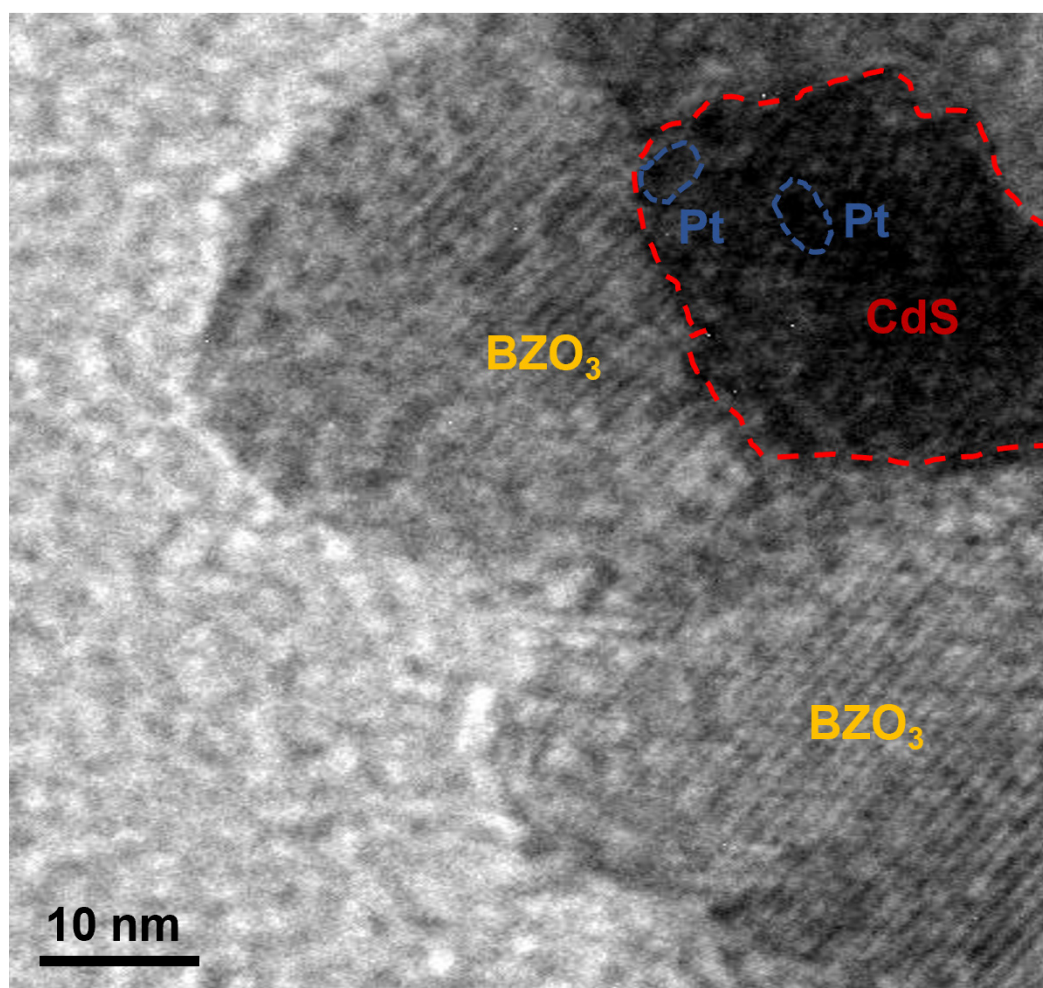
\* Corresponding author. E-mail: suhaibshuaib90@gmail.com (S.S.A.S.);  
caimengdie1987@163.com (M.C.)



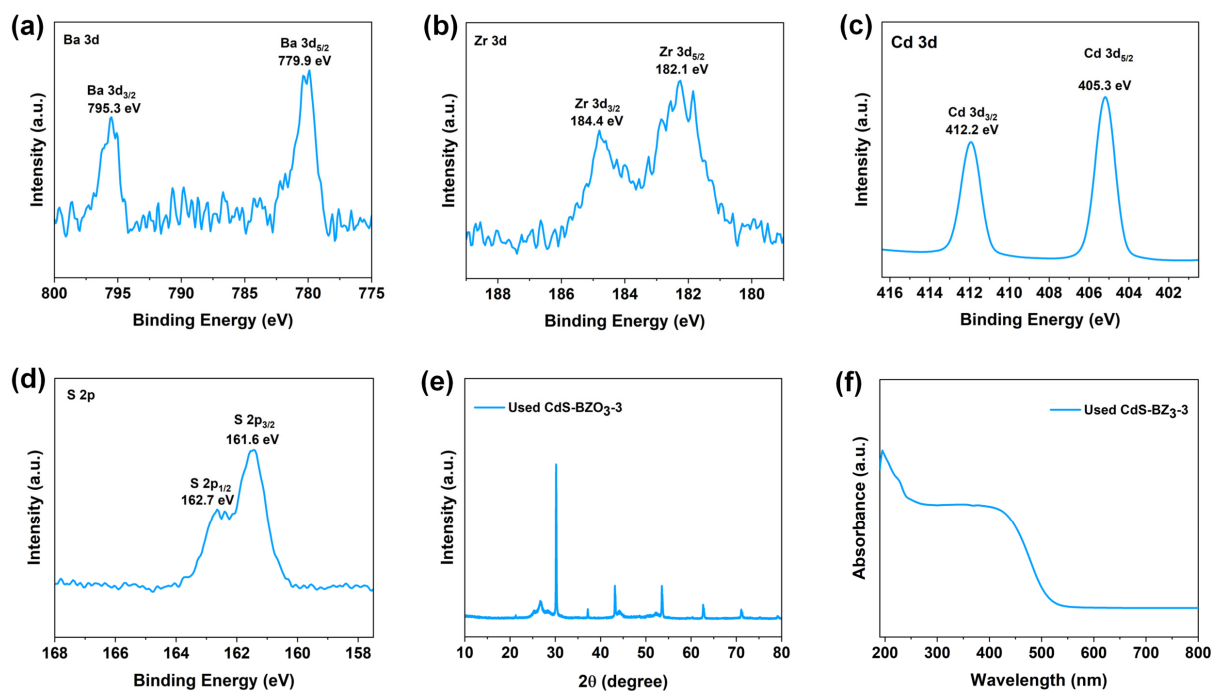
**Figure S1.** The xenon lamp light source system.



**Figure S2.** The spectrum of xenon lamp light source system.



**Figure S3.** High-resolution TEM image of CdS-BZO<sub>3</sub>-3 sample after photochemical deposition of Pt.



**Figure S4.** High-resolution XPS spectrum for (a) Ba 3d; (b) Zr 3d; (c) Cd 3d; (d) S 2p, (e) XRD patterns, and (f) UV-vis absorption spectra of used CdS-BZO<sub>3</sub>-3 heterojunction.