## Supplementary Materials: Hydrothermal Carbonation Carbon-Coated CdS Nanocomposite with Enhanced Photocatalytic Activity and Stability

Yuanliang Ma, Zhongkun Zhao, Zhurui Shen, Qiang Cai, Huiming Ji and Leichao Meng



**Figure S1.** <sup>13</sup>C Solid-state NMR of the as-prepared HTCC, the chemicals shift peaks of polyfuran domains are highlighted here.



Figure S2. HRTEM images of (a) 0.05C/CdS-PVP and (b) 0.5C/CdS-PVP samples.



Figure S3. TGA curves of CdS-PVP and 0.1C/CdS-PVP samples.



Figure S4. The pore size distribution curves of the pure CdS, CdS-PVP and 0.1C/CdS-PVP samples.



Figure S5. The band gaps calculated from Kubelka-Munk plots of the as-prepared samples.



Figure S6. SEM images of (a) 0.2C/CdS-PVP and (b) 0.5C/CdS-PVP samples.