

## Supplementary information

# Construction of Bi<sub>2</sub>MoO<sub>6</sub>/CdS Heterostructure with Enhanced Visible Light Photocatalytic Activity for Fuel Denitrification

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## Experimental section

### 1、Details of characterization

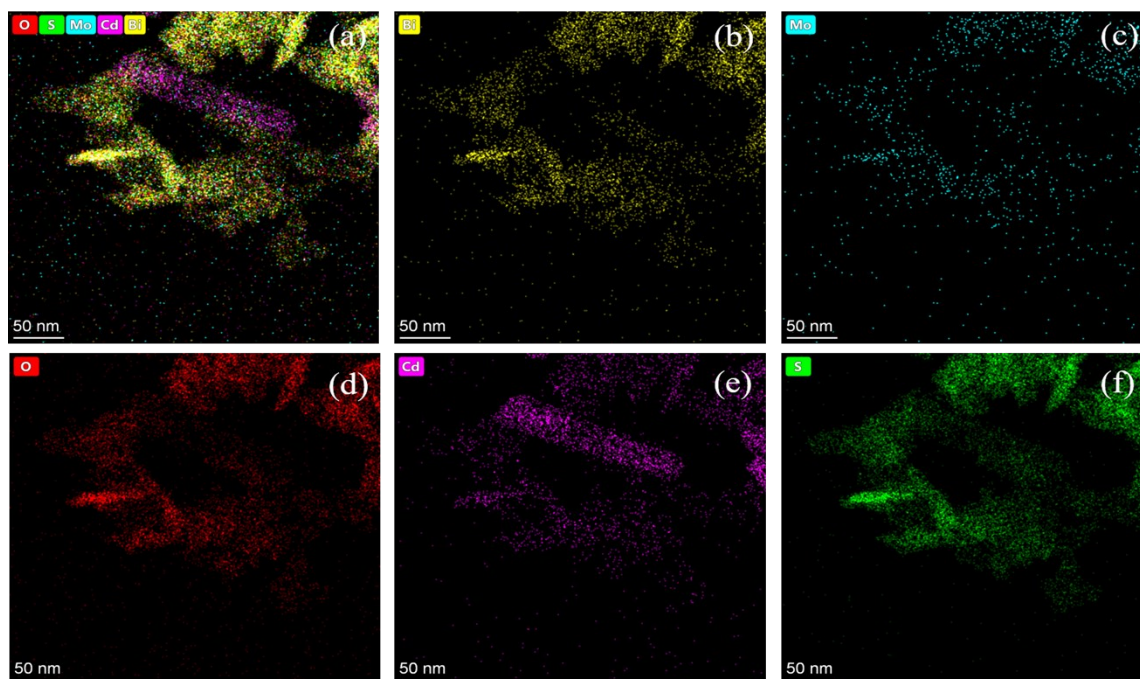


Fig. S1. (a-f) HAADF-STEM mapping images of the 0.65-BMO/CdS

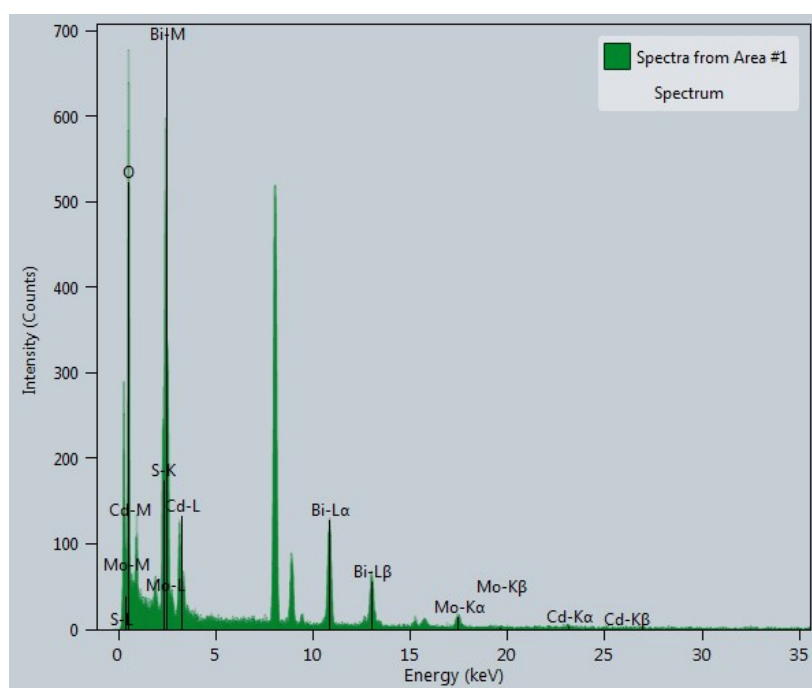


Fig. S2. EDS of the 0.65-BMO/CdS

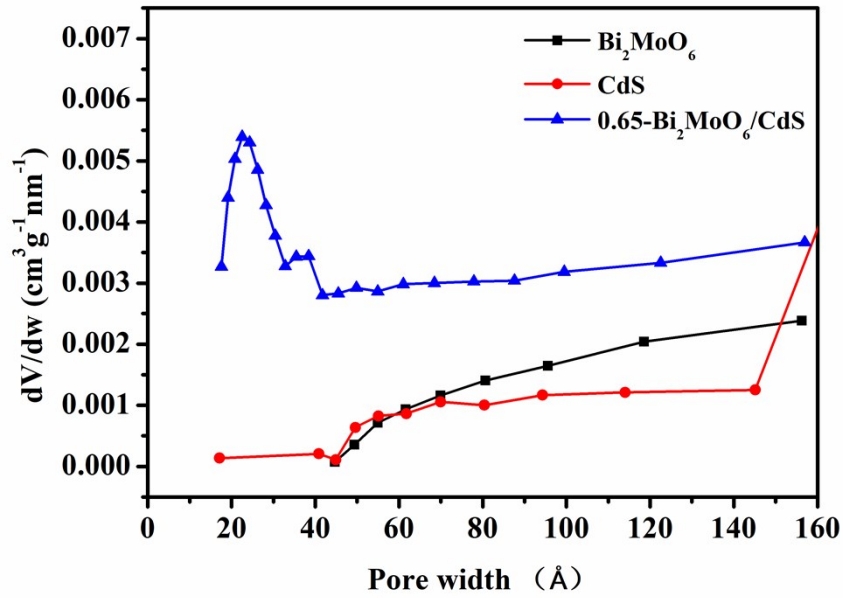
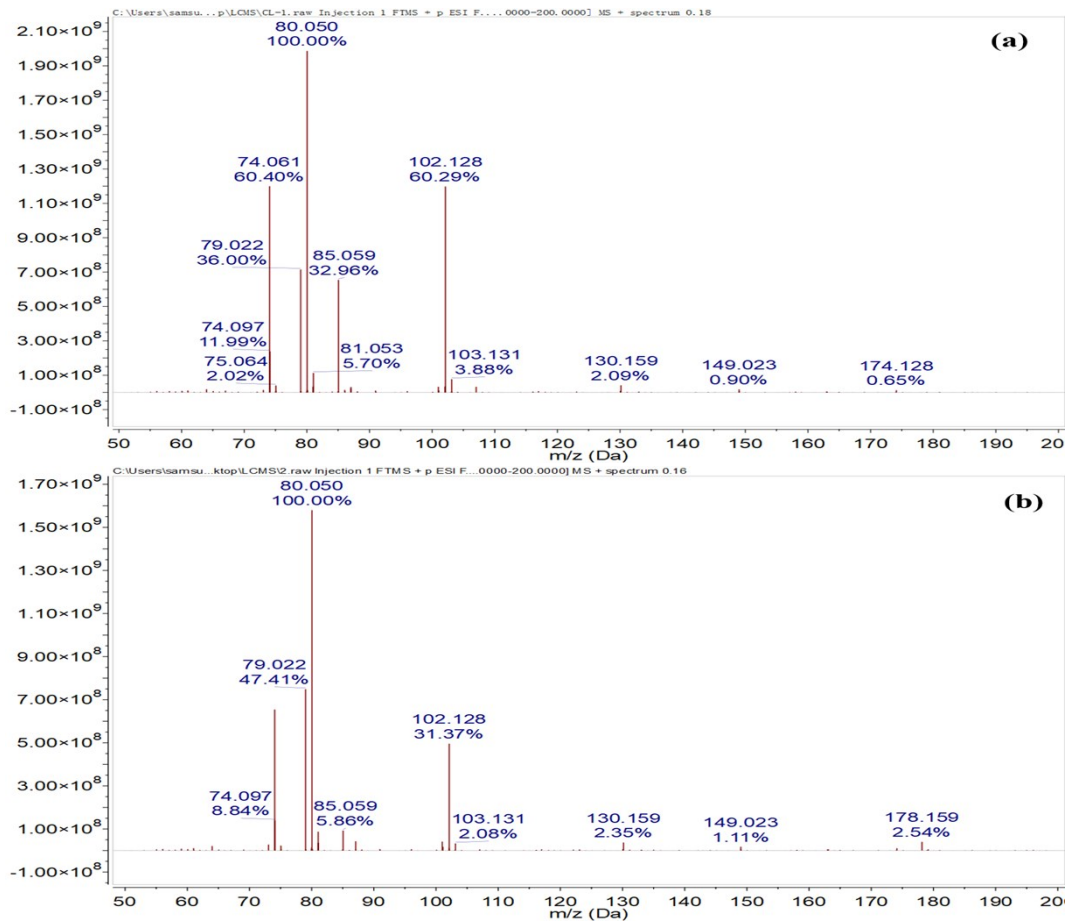
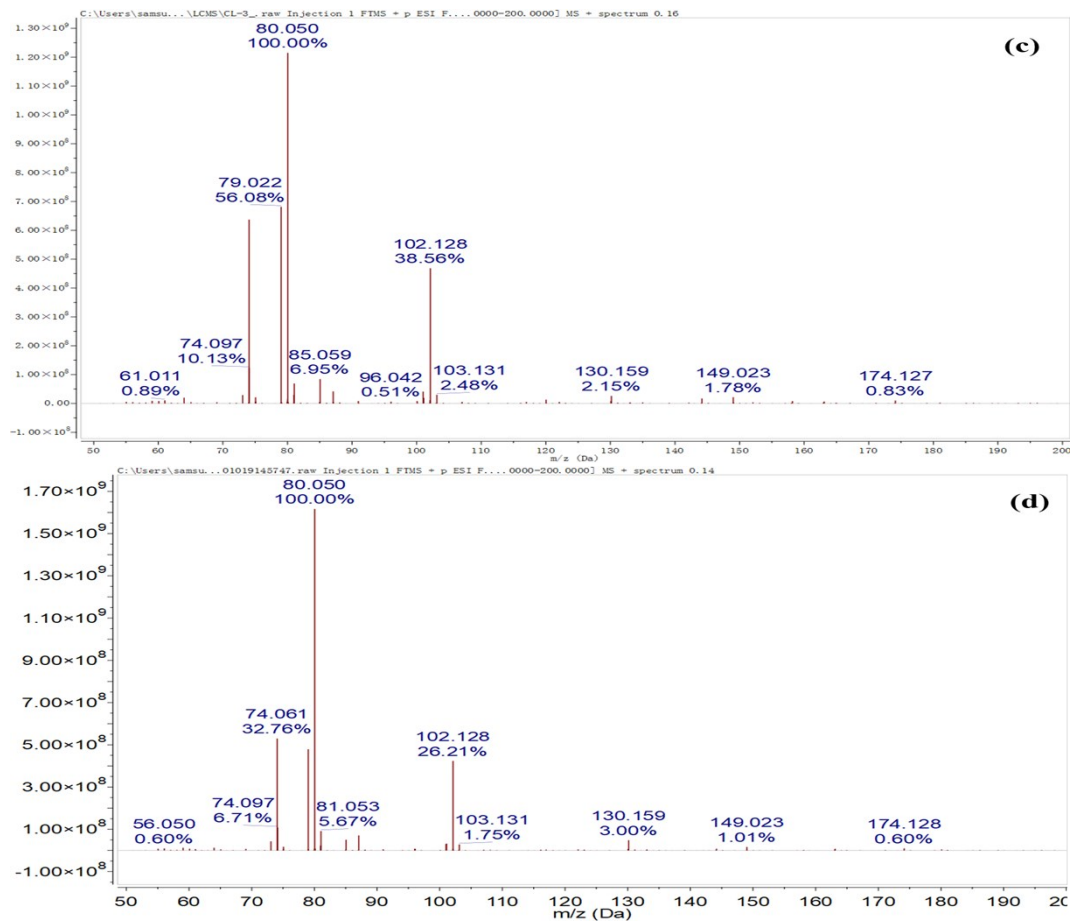
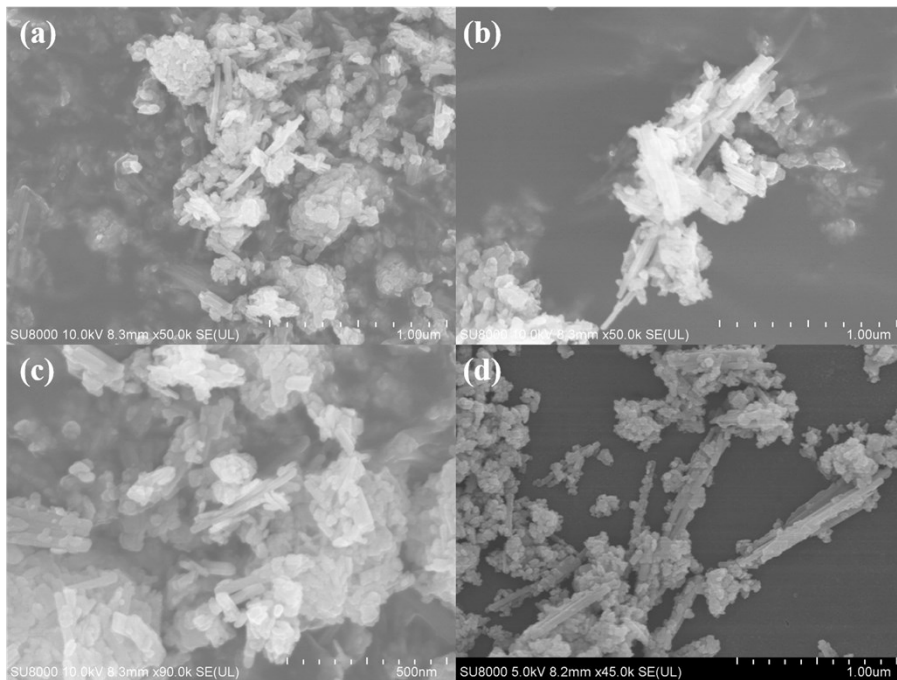


Fig. S3. pore size distribution curves of photocatalysts





**Fig. S4. High-performance liquid chromatography profiles of pyridine after different irradiation times: (a) 1h, (b) 2h, (c) 3h and (d) 4h**



**Fig. S5. SEM images of (a,b,c) 0.65-BMO/CdS after four cycles, (d) Initial 0.65-BMO/CdS.**

## 2、The details of the fuel denitration cycle

After the first experiment, the photocatalyst was collected into a centrifuge tube, separated by centrifugation (8000 rpm, 6 min), washed several times with deionised water and ethanol, and then were dried in a vacuum drying oven at 80°C for 6 h. Afterward, the produced yellow-green solids were collected. Then it was the same as the first pyridine removal experiment and the concentration was detected after 4 hours of visible light irradiation (>420nm).



**Fig. S6. (a) Initial 0.65-BMO/CdS, (b) photographs of samples of 0.65-BMO/CdS after four cycles**