Supplementary information

Construction of Bi$_2$MoO$_6$/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 denitrification 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