Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supplementary information

Enhanced photocatalytic nitrogen fixation in $BiVO_4$: constructing oxygen vacancies and promoting electron transfer through Ohmic-contact

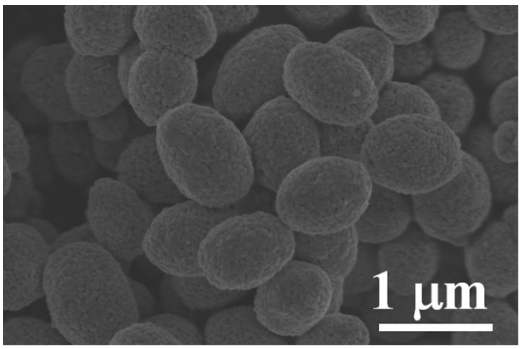

Fig. S1 SEM image of OVs-BVO.

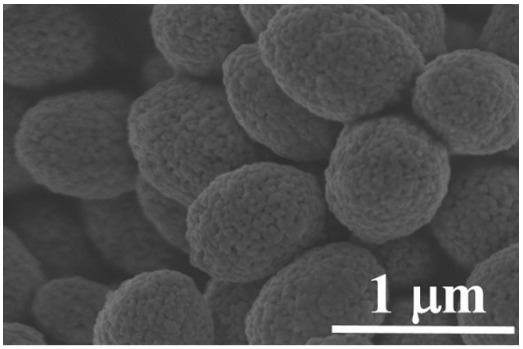

Fig. S2 SEM image of BVO.

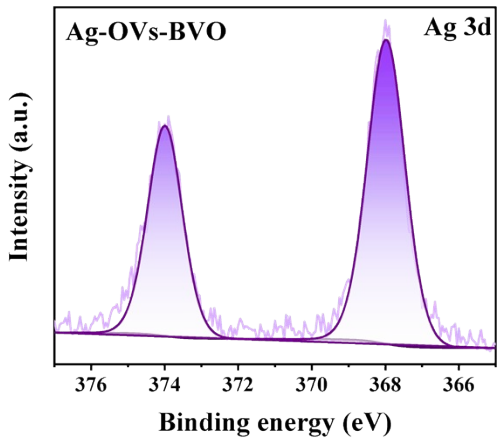

Fig. S3 The high resolution XPS spectra of Ag 3d in Ag-OVs-BVO.

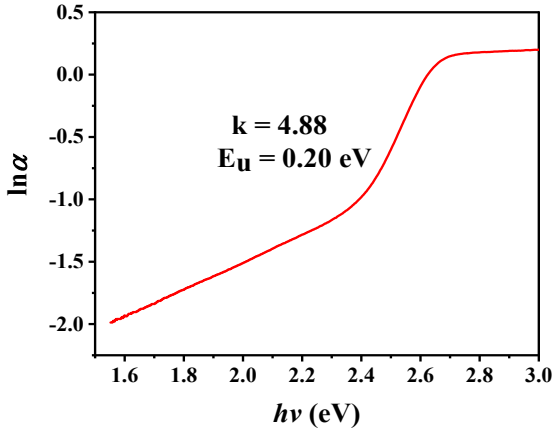

Fig. S4 The Urbach plot OVs-BVO.

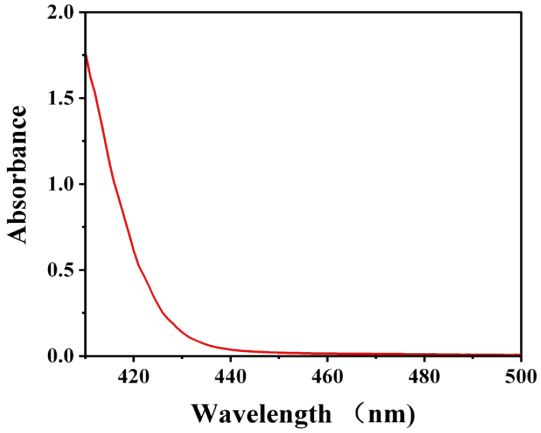

Fig. S5 Determination of N_2H_4 content in Ag-OVs-BVO photocatalytic reaction products.

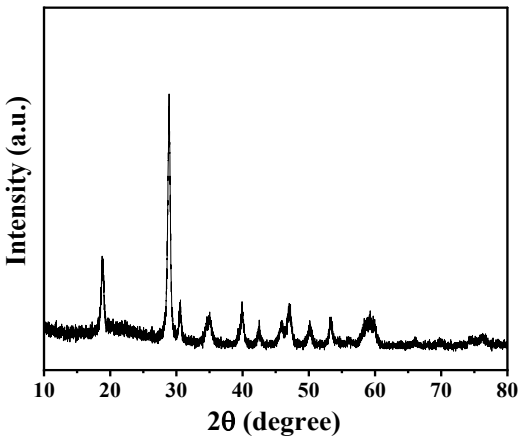

Fig. S6 XRD spectra of Ag-OVs-BVO after photocatalytic in N_2 environment.

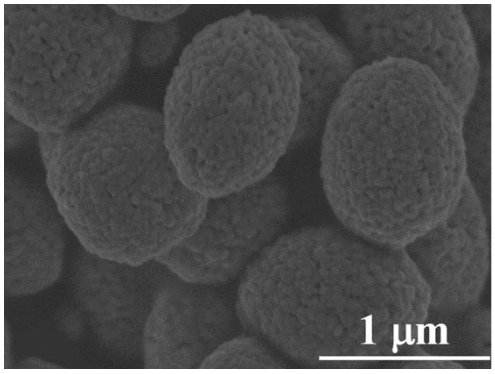

Fig. S7 SEM image of Ag-OVs-BVO after photocatalytic in N_2 environment.

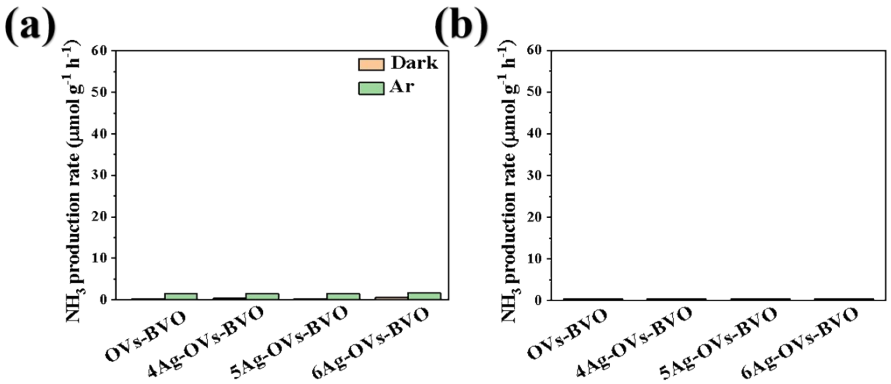

Fig. S8 (a) NH_3 production rate in the N_2 circumstance without light irradiation and in Ar circumstance with light irradiation; (b) NH_3 production rate without catalyst under N_2 and light irradiation.

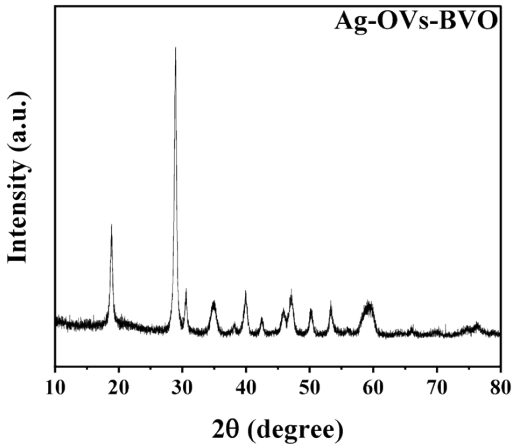

Fig. S9 XRD spectra of Ag-OVs-BVO after photocatalytic in Ar environment.

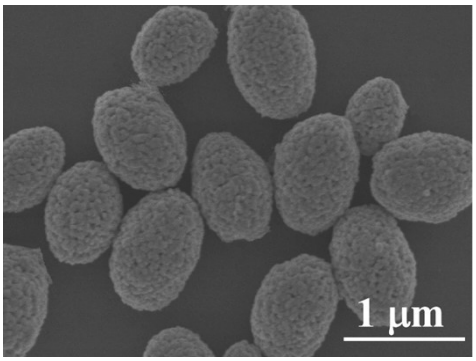

Fig. S10 SEM image of Ag-OVs-BVO after photocatalytic in Ar environment.

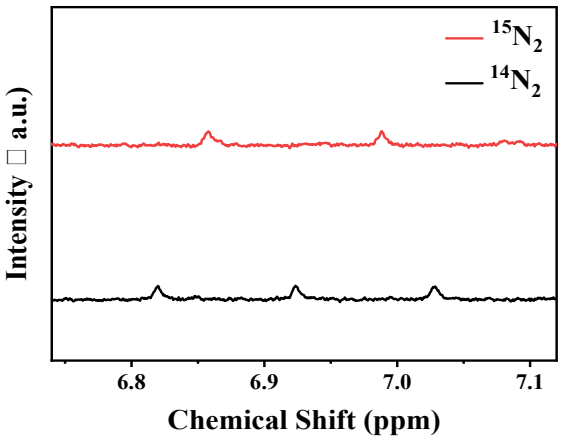

Fig. S11 ^{1}H NMR spectra of Ag-OVs-BVO photocatalytic reaction products under different atmospheres.

Table S1 Analysis consequence of element mass content in Ag-OVs-BVO through EDX.

Element	Bi	V	O	Ag
Mass percentage (%)	66.35	16.11	13.62	3.92