Supplementary Material (ESI) for Journal of Materials Chemistry


# Supporting Information

# Facile fabrication of hierarchical N-doped GaZn mixed oxides for water splitting reaction

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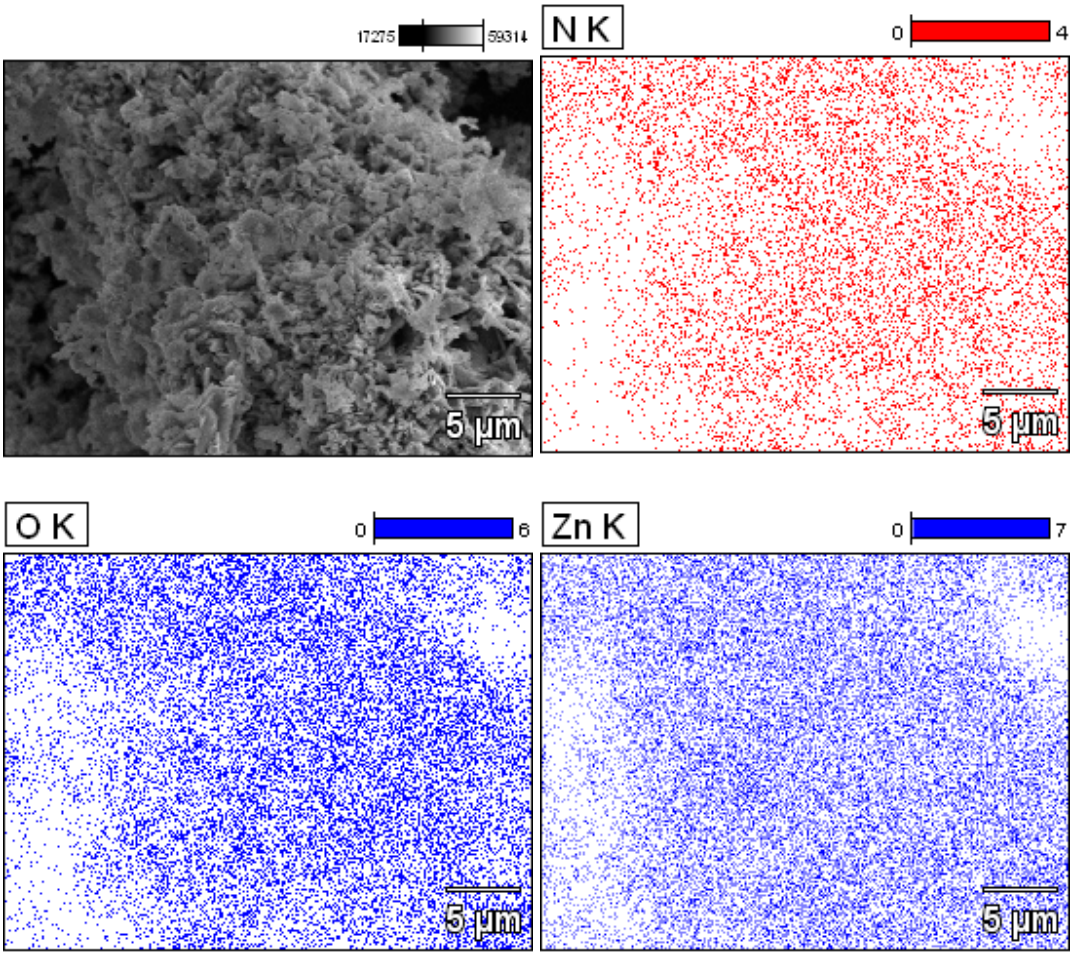


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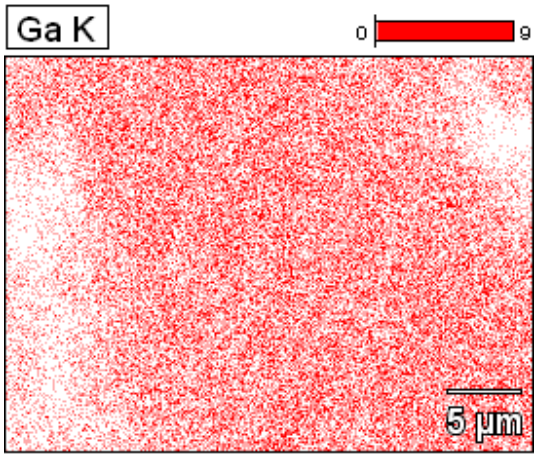
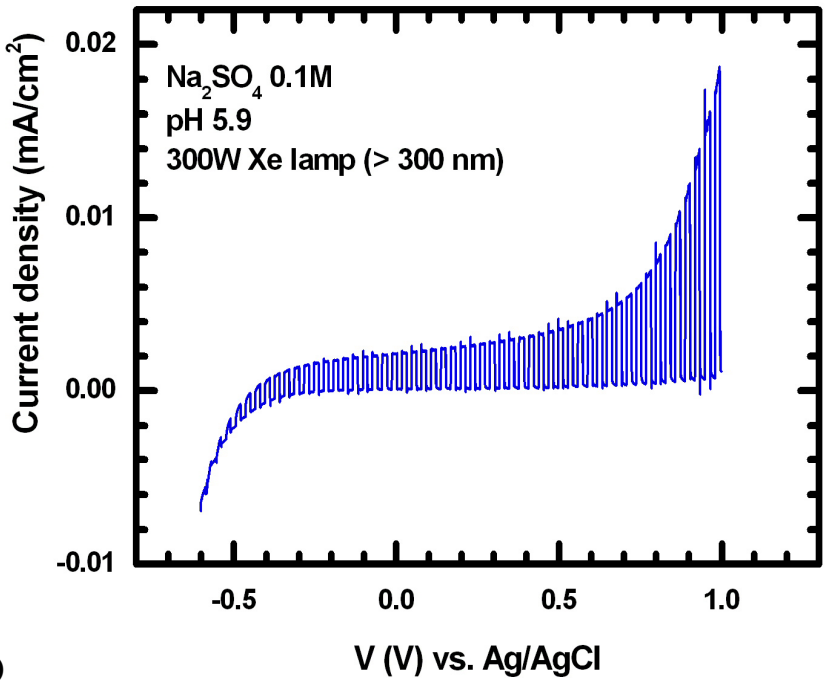
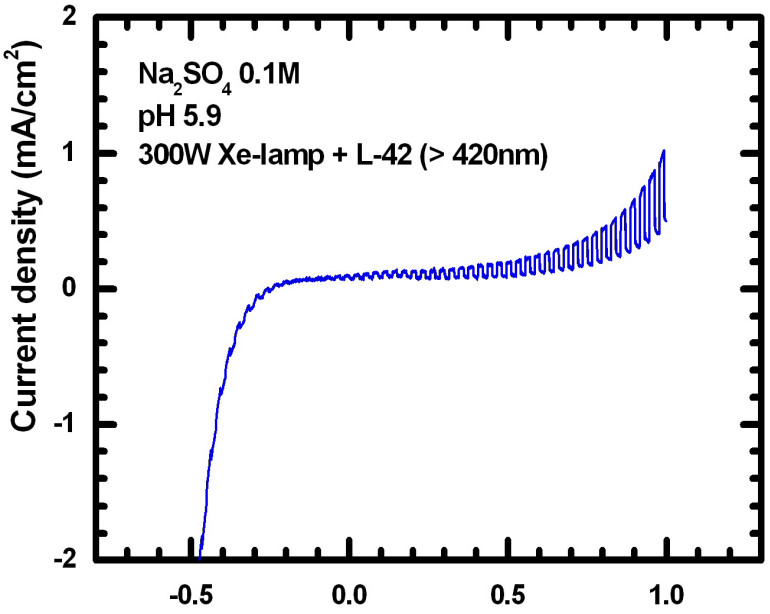



**Fig. S1** X-ray mapping of N-GaZn mixed oxide (glycine as N-precursor) activated at 500 $^{o}$C.




**(A)**




**(B)**

**Fig. S2** Current voltage curves for N-GaZn mixed oxide (glycine as N-precursor) electrodes under (A) UV irradiation (> 300 nm) (B) visible irradiation (> 420 nm) in 0.1 M $Na_2SO_4$ (pH 5.9).

Fig S2 (A) depicts the current-voltage curves of N-doped GaZn mixed oxide electrodes under UV irradiation. Anodic photocurrent was clearly observed the electrode and exhibited highest photocurrent of 0.016 mA/cm$^2$ at 0.95 V vs. Ag/AgCl. The presence of anodic photocurrent indicates that the photocatalysts are n-type semiconductors.

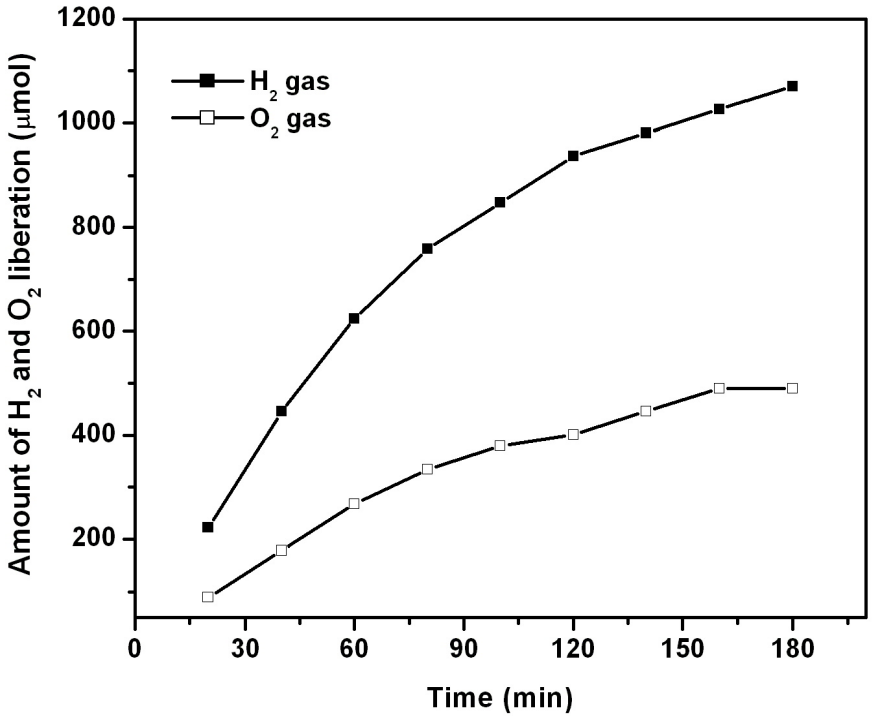



**Fig. S3** Water splitting reaction without sacrificial agent over N-doped GaZn mixed oxide using glycine as precursor.

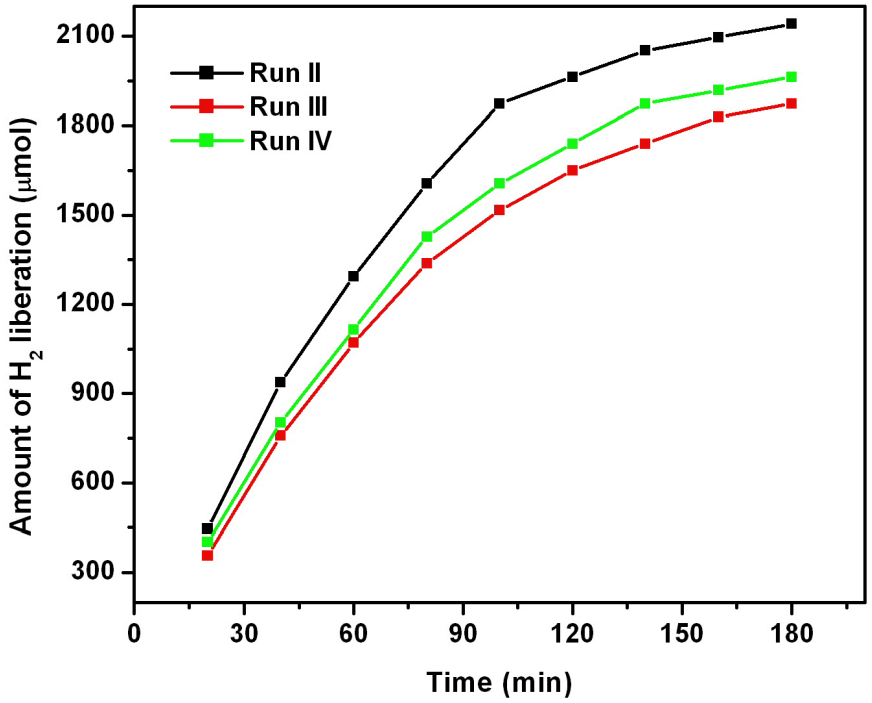



**Fig. S4** Reusability study over N-doped GaZn mixed oxide using glycine as precursor.