Electronic Supplementary Material (ESI) for CrystEngComm.

Supporting Information

for

Self-trapped holes, oxygen vacancies and electrocatalytic performance of Zn-doped β-Ga_2O_3 microspindles

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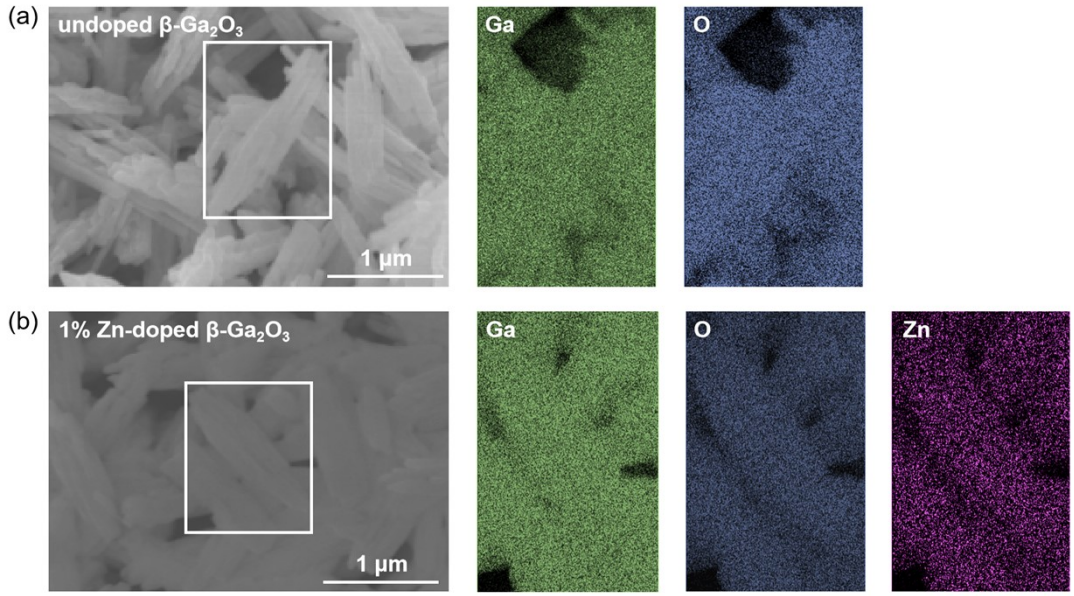

Fig. S1 The EDS mappings of elements in (a) undoped and (b) 1% Zn-doped β-Ga_2O_3 microspindles.

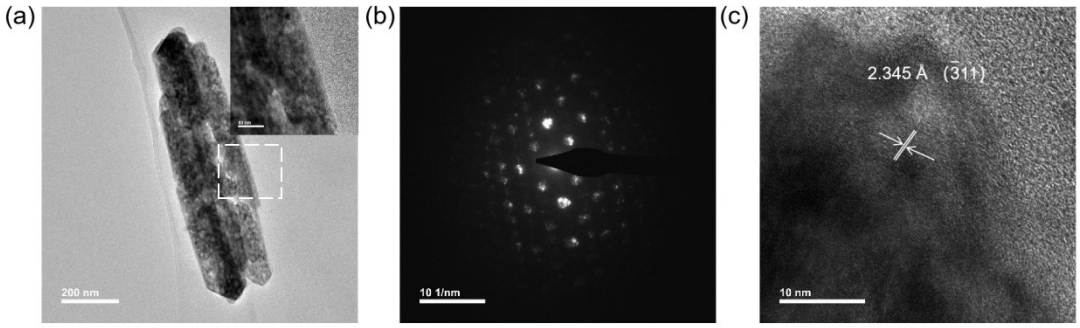

Fig. S2 (a) TEM image, (b) the corresponding SAED pattern and (c) HRTEM image of the 1% Zn-doped β -Ga_2O_3 spindles.

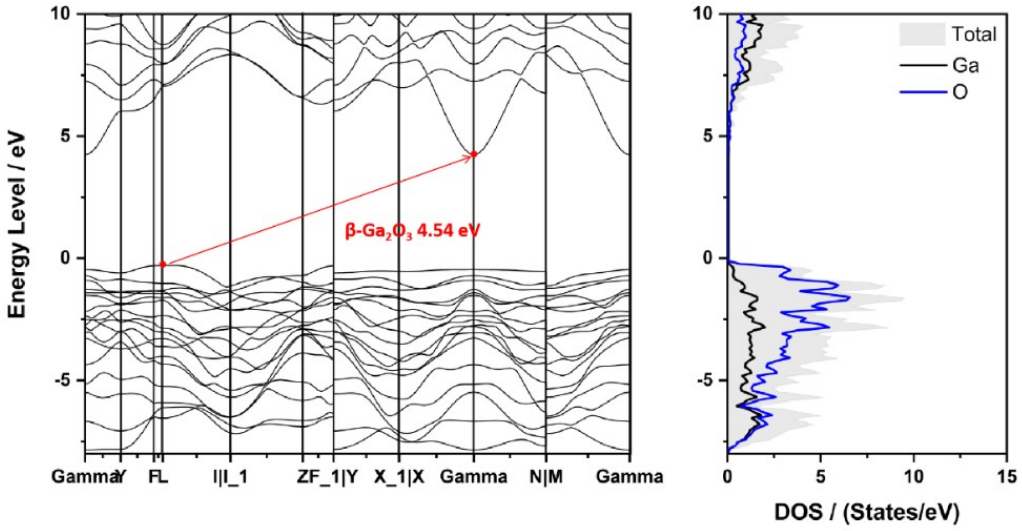

Fig. S3 The bandgap and DOS of the β-Ga_2O_3 microspindles.

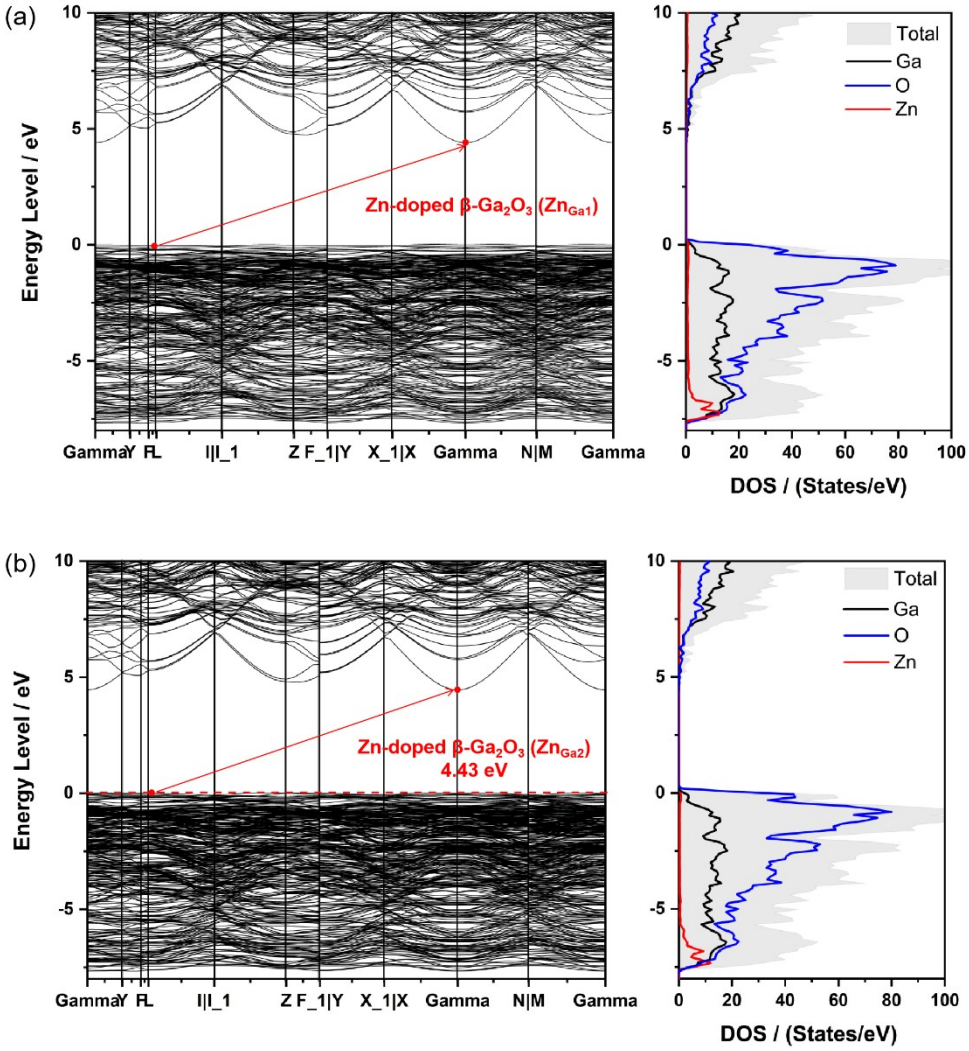

Fig. S4 The bandgap and DOS of the Zn-doped β-Ga_2O_3 microspindles where (a) Zn replacing Ga_1 site and (b) Zn replacing Ga_2 site.

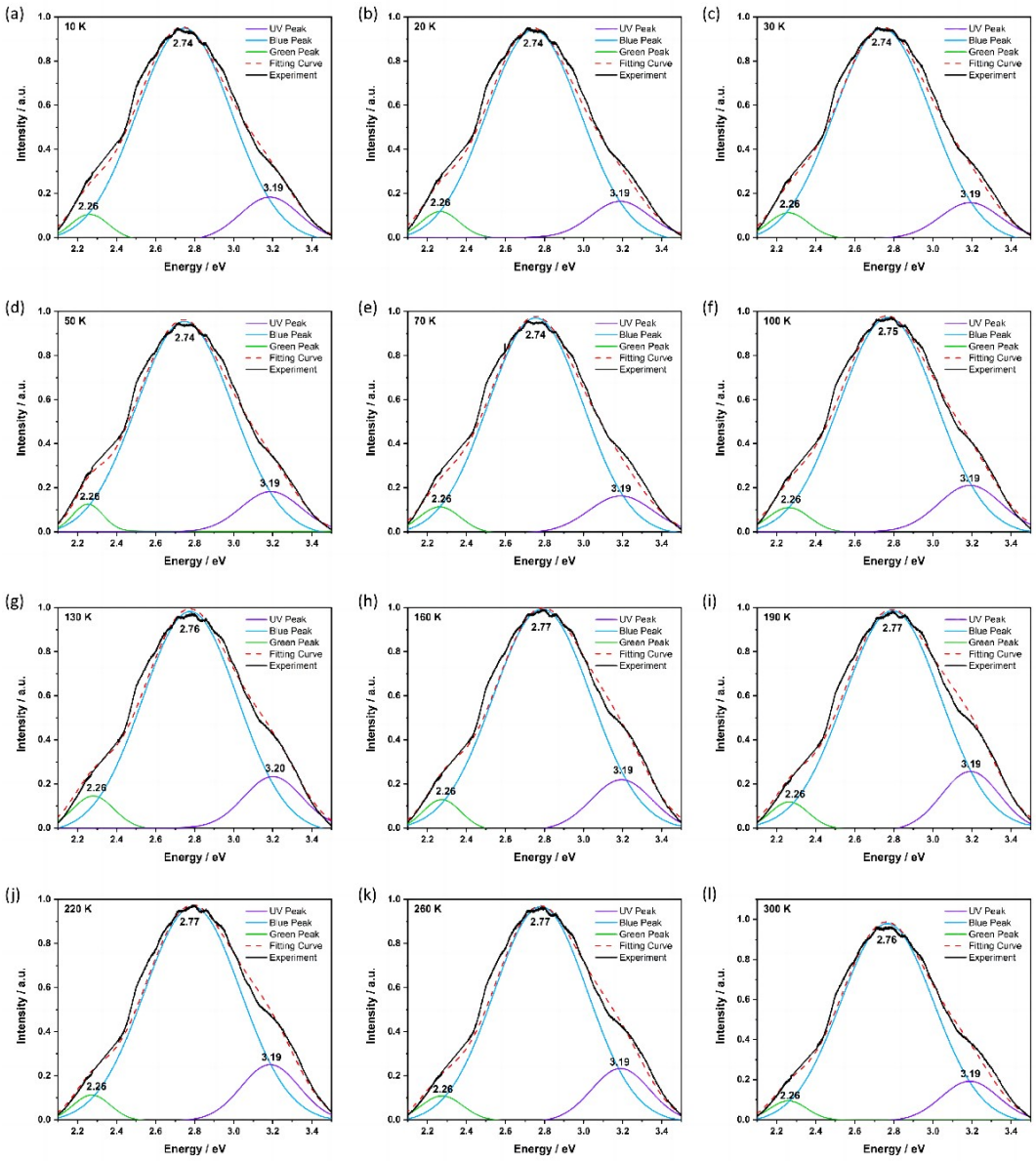

Fig. S5 (a-l) The Gaussian fitting curves of temperature-dependent PL spectra of the β-Ga_2O_3 microspindles from 10 K to 300 K.

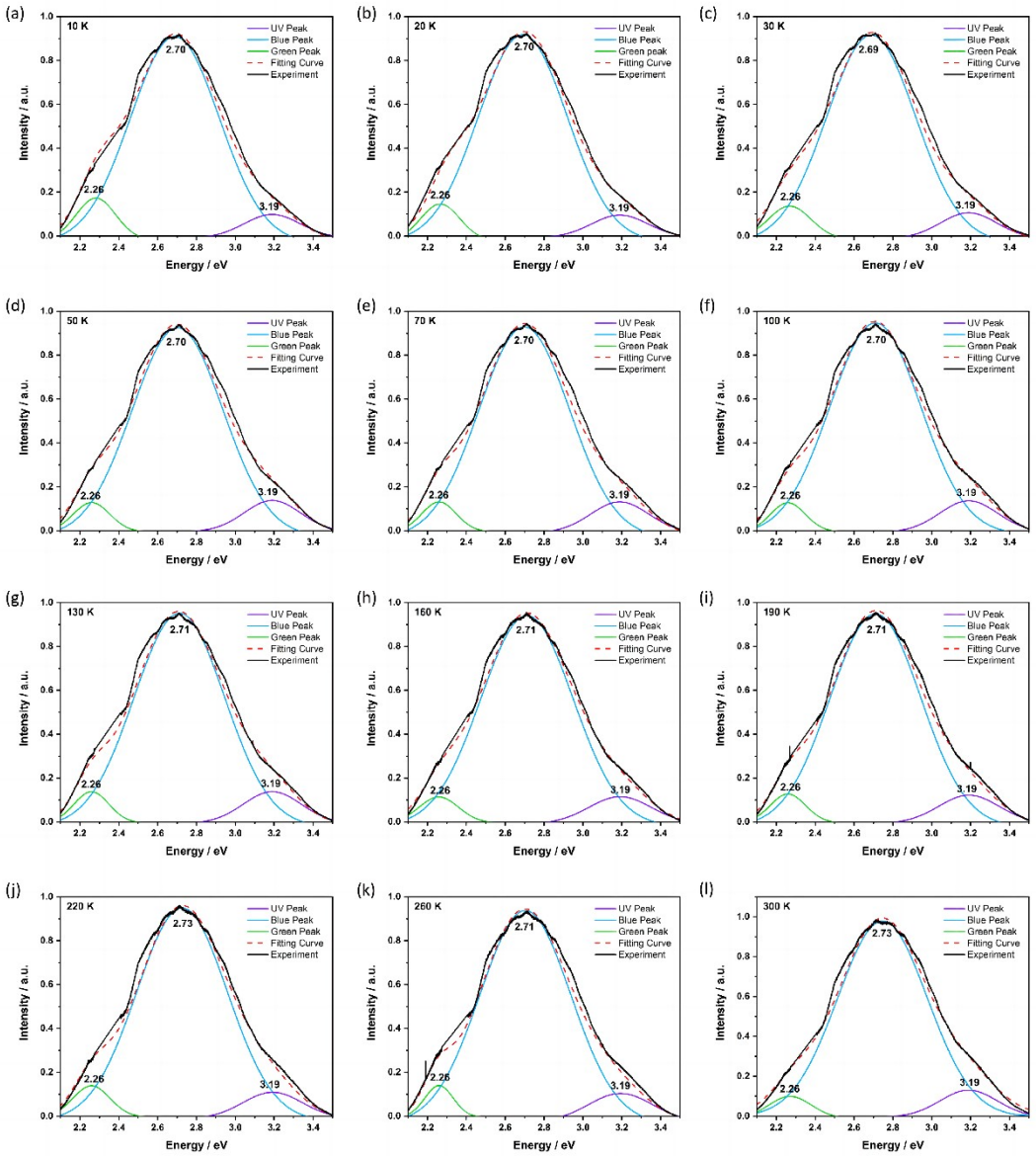

Fig. S6 (a-l) The Gaussian fitting curves of temperature-dependent PL spectra of Zn-doped β-Ga_2O_3 microspindles from 10 K to 300 K.