Supporting Information

for

Iron-doped β-Ga_2O_3 single crystal: iron occupying site and optical properties

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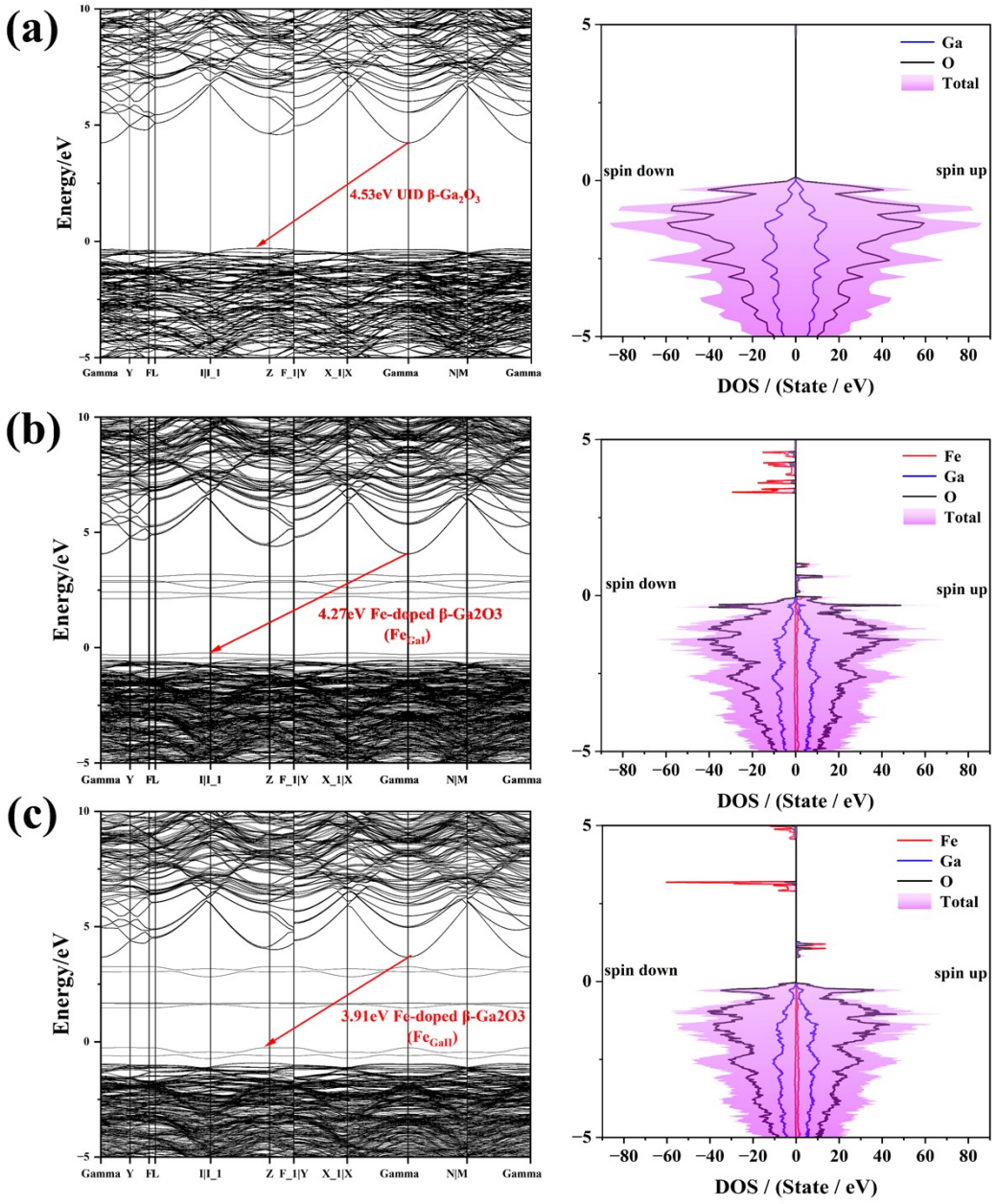

Fig. S1 The bandgap and DOS of the UID β-Ga_2O_3 and Fe-doped β-Ga_2O_3 where (a) UID β-Ga_2O_3 (b) Fe replacing Ga_I site and (c) Fe replacing Ga_{II} site.

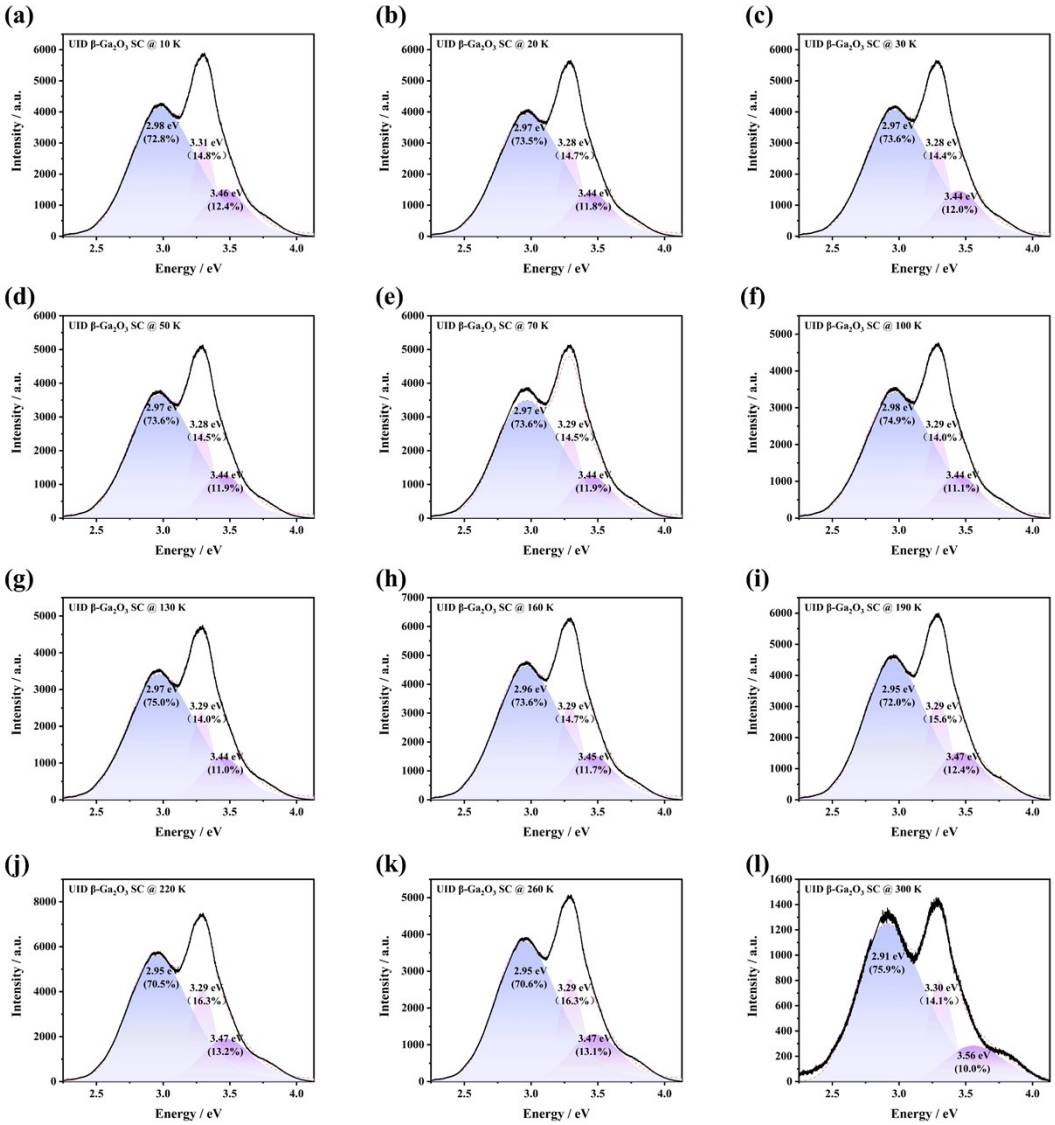

Fig. S2 (a-l) The Gaussian fitting curves of temperature-dependent PL spectra of the UID β-Ga_2O_3 SC from 10 K to 300 K.

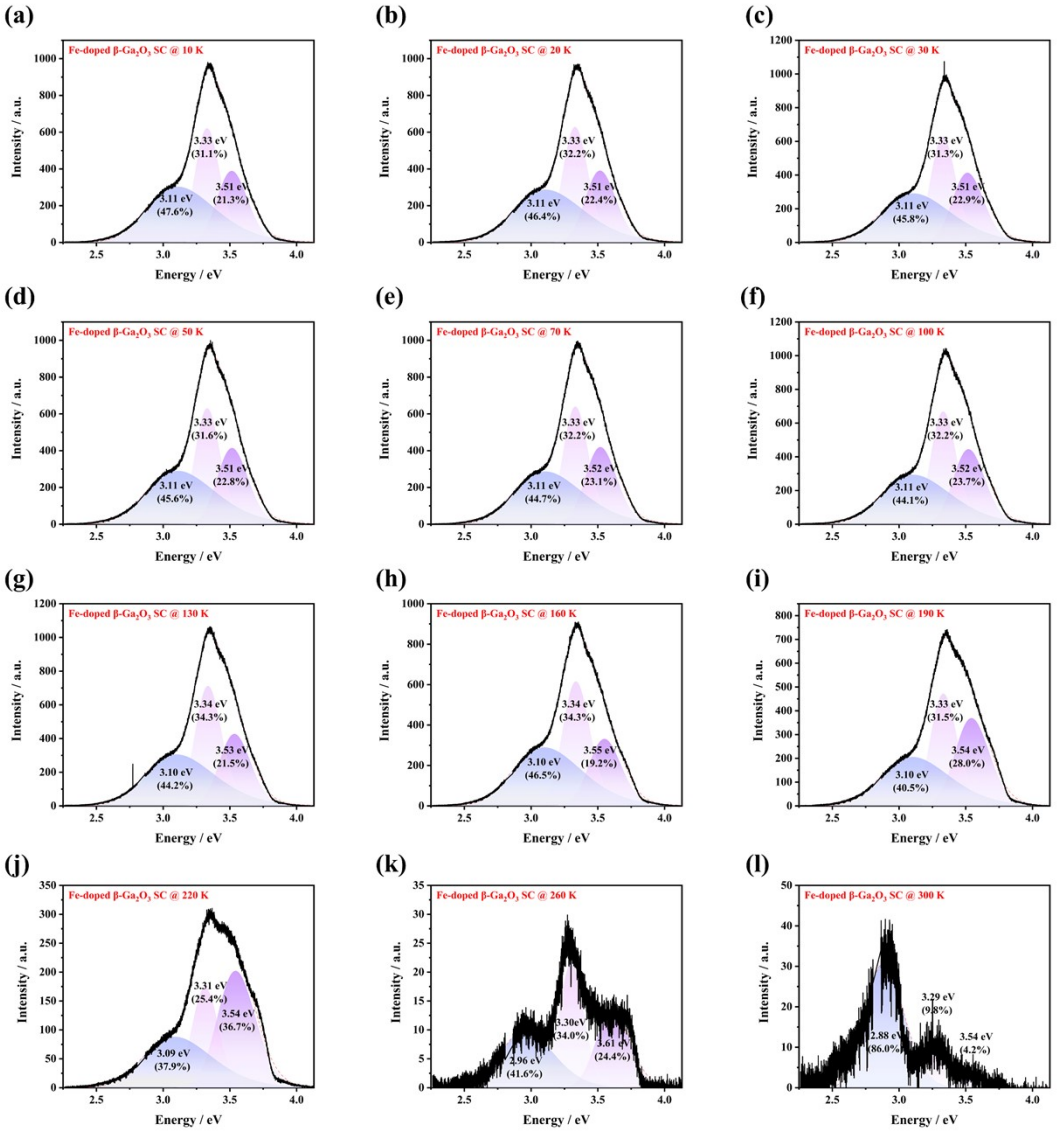

Fig. S3 (a-l) The Gaussian fitting curves of temperature-dependent PL spectra of Fe-doped β-Ga_2O_3 SC from 10 K to 300 K.