

Supplementary information

Incident Fluence dependent morphologies, photoluminescence and optical oxygen sensing properties of ZnO nanorods grown by pulsed laser deposition

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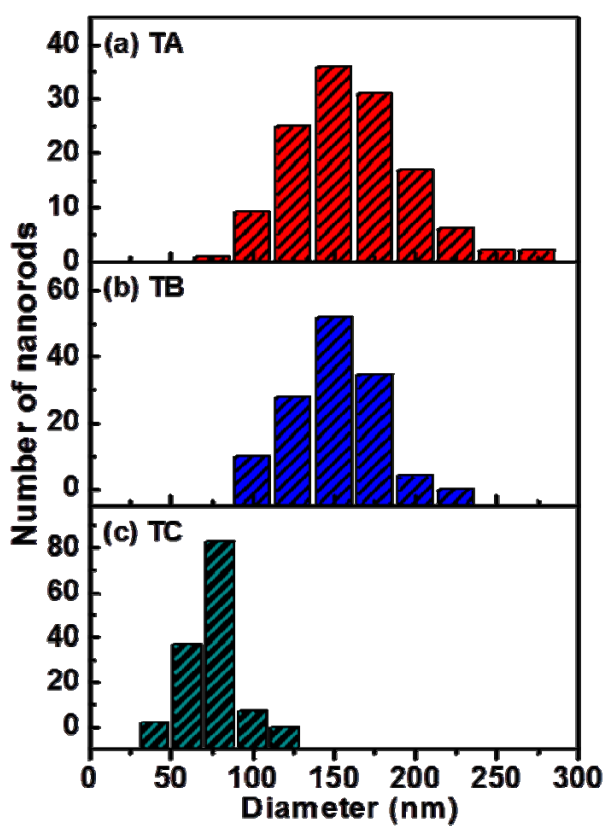


Fig. S1 Diameter distribution of TA (a), TB (b) and TC (c) ZnO nanorods

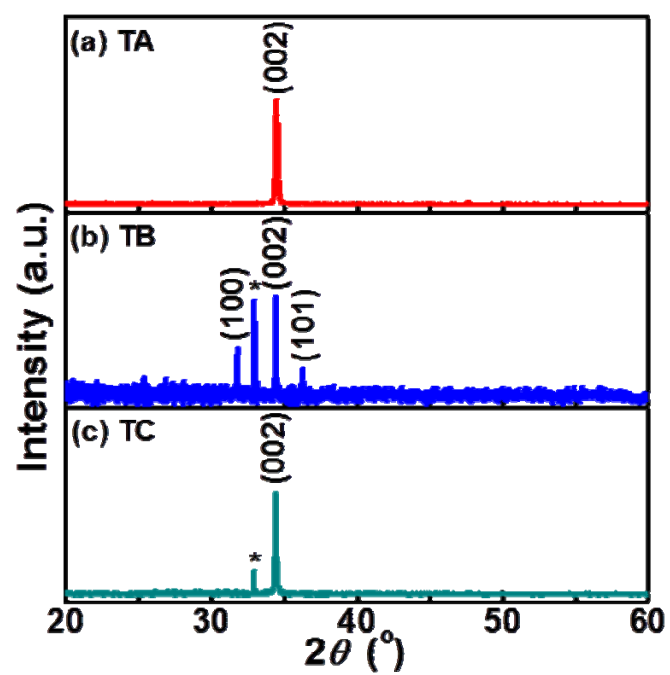


Fig. S2 XRD patterns of TA (a), TB (b) and TC (c) samples. The peak marked with an asterisk in panels (b) and (c) is associated with the Si substrate.

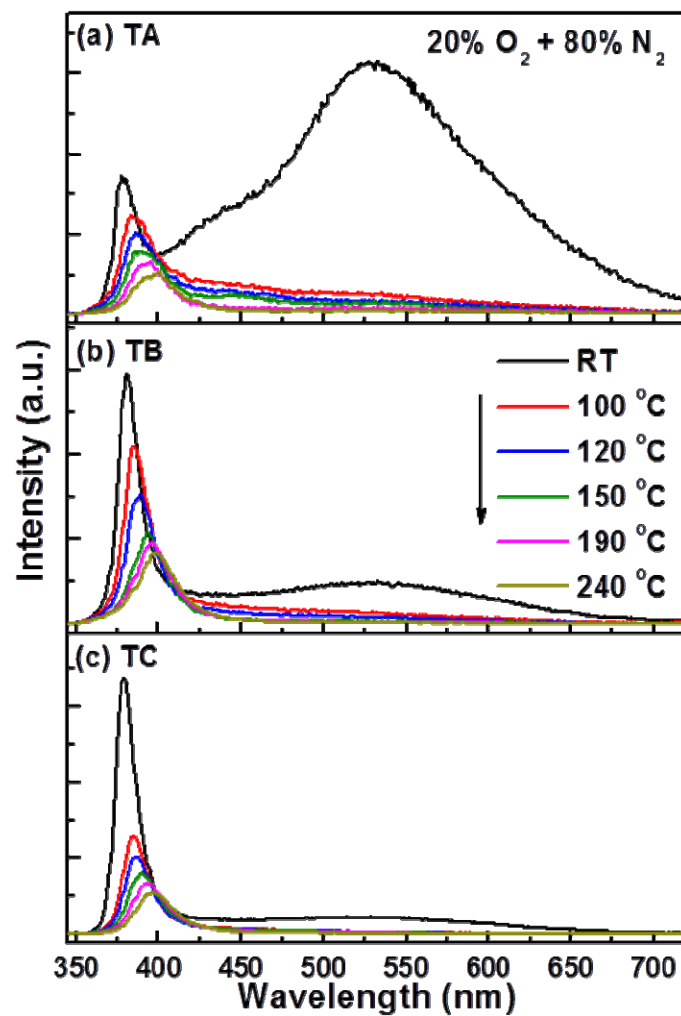


Fig. S3 PL spectra of TA (a), TB (b) and TC (c) ZnO nanorods in a 20% O₂ / 80% N₂ gas mixture at several temperatures in the range $RT \leq T_{NR} \leq 240^{\circ}\text{C}$

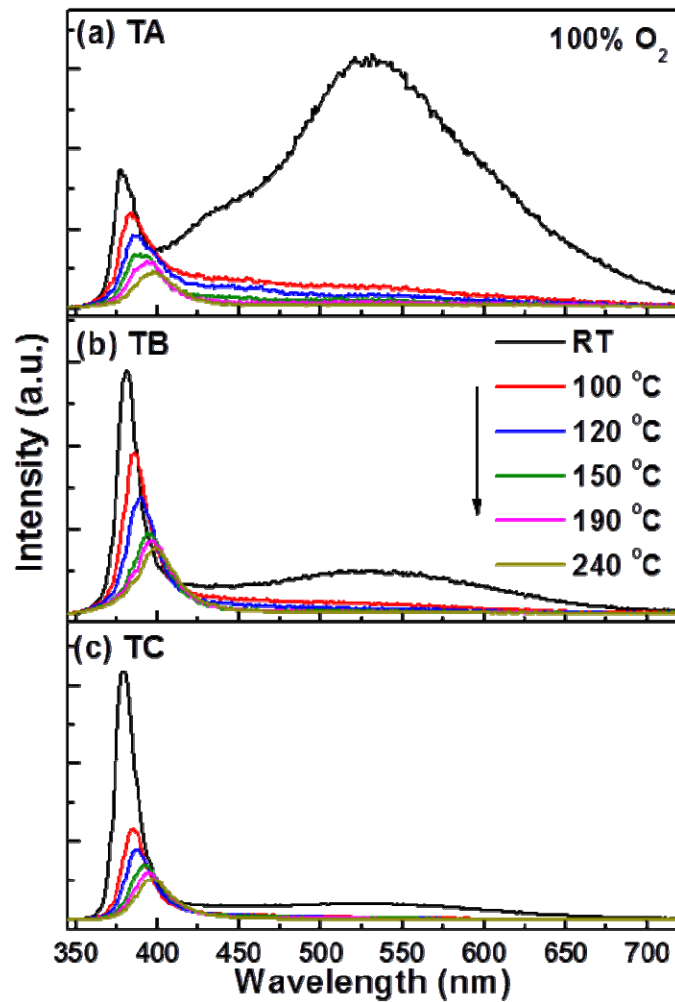


Fig. S4 PL spectra of TA (a), TB (b) and TC (c) ZnO nanorods in 100% O₂ at several temperatures in the range $RT \leq T_{NR} \leq 240^{\circ}\text{C}$.

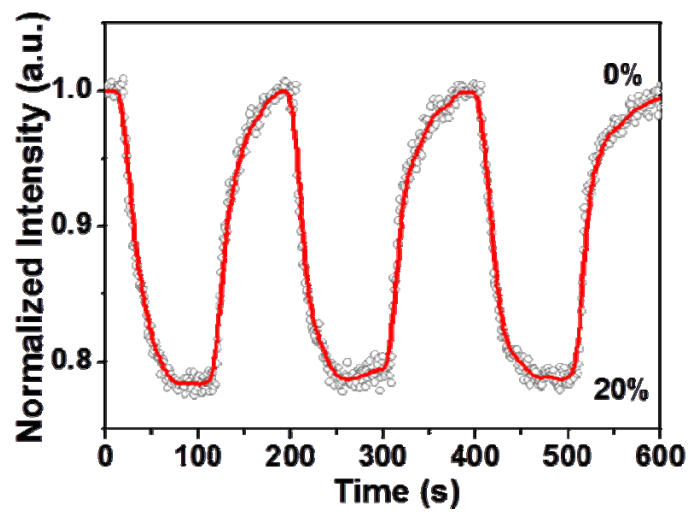


Fig. S5 The dynamic I_{UV} response of the TC nanorods to a 20% O_2 / 80% N_2 gas mixture at $T_{NR} = 150^\circ C$

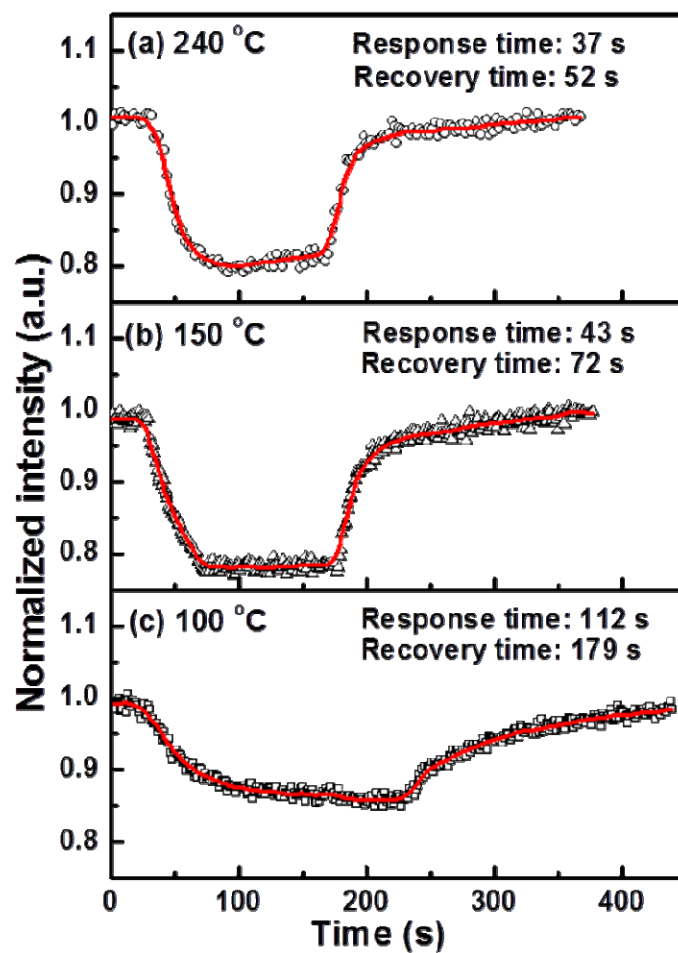


Fig. S6 The transient I_{UV} response of the TC nanorods to a 20% O₂/80% N₂ gas mixture at $T_{NR} = 240^{\circ}\text{C}$ (a), 150°C (b) and 100°C (c).