

**A role of oxygen adsorption and gas sensing mechanism for cerium vanadate
(CeVO₄) nanorods**

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Fig. S1

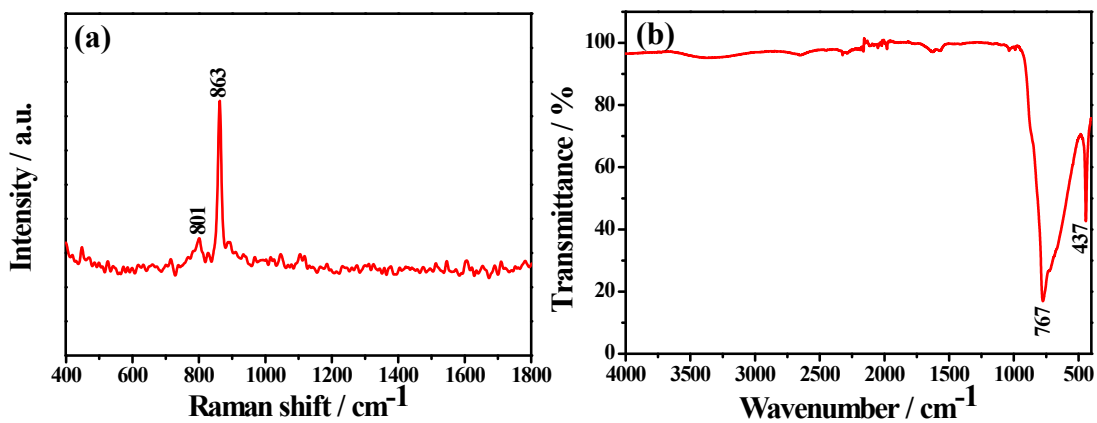


Fig. S1 Raman spectrum (a) and IR transmission spectrum (b) of CeVO_4 NRs.

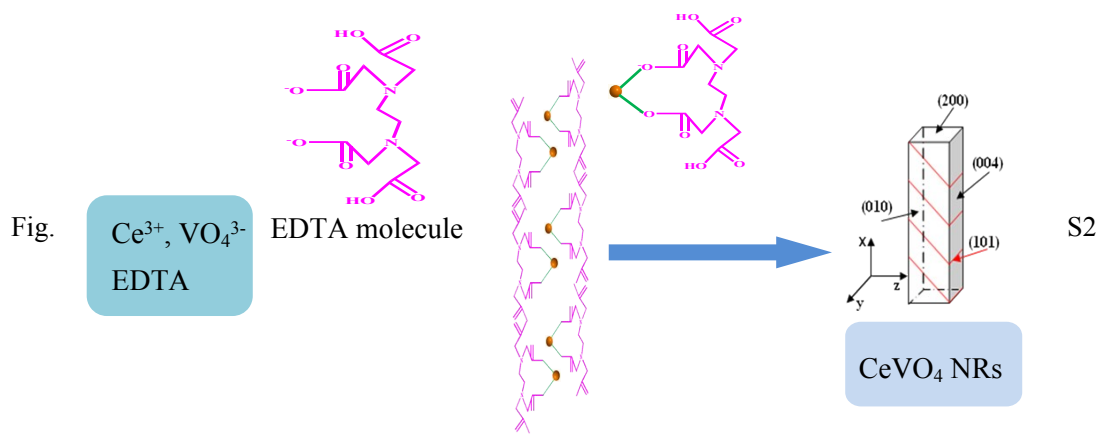


Fig. S2 Schematic growth mechanism in CeVO₄ NRs.

Fig. S3

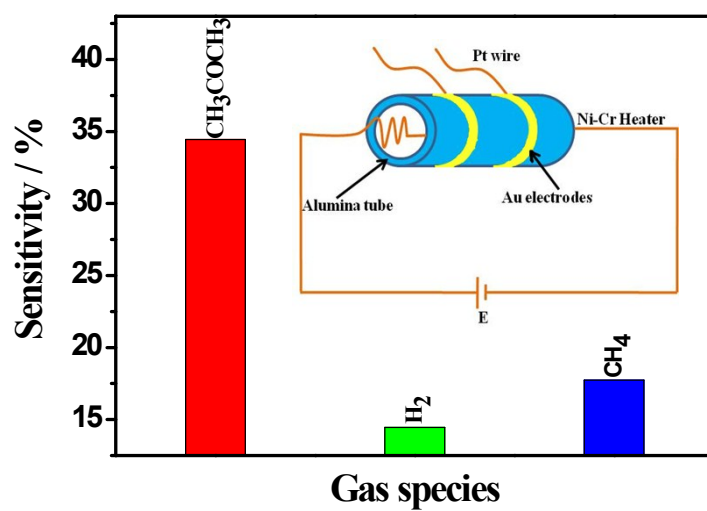


Fig. S3 Sensitivity of CeVO₄ NRs gas sensor to different gases at 5V (108 °C) (the inset is the gas sensor).

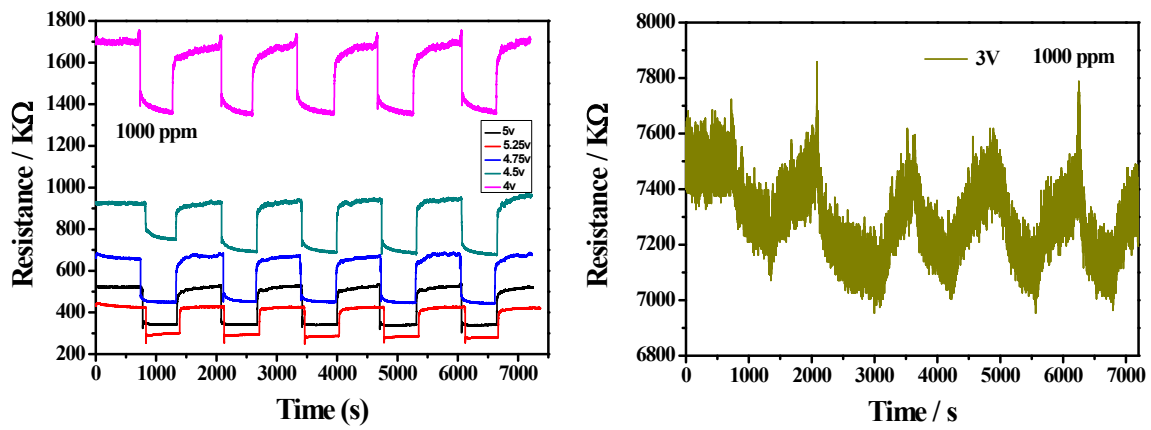


Fig. S4 Sensing behavior of $CeVO_4$ NRs gas sensor to acetone gas at different voltages.

Fig. S5

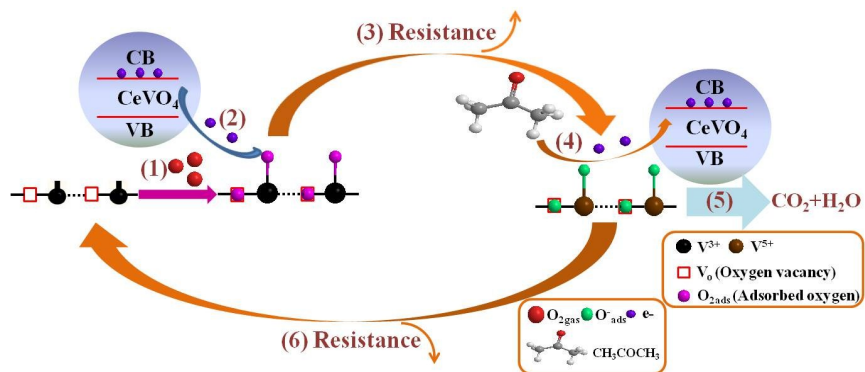


Fig. S5 Schematic illustration of gas-sensing process for CeVO_4 NRs.