

## Supporting Information

### A simple grinding-calcination approach to prepare $\text{Co}_3\text{O}_4\text{-In}_2\text{O}_3$ heterojunction structure with high-performance gas-sensing property to ethanol

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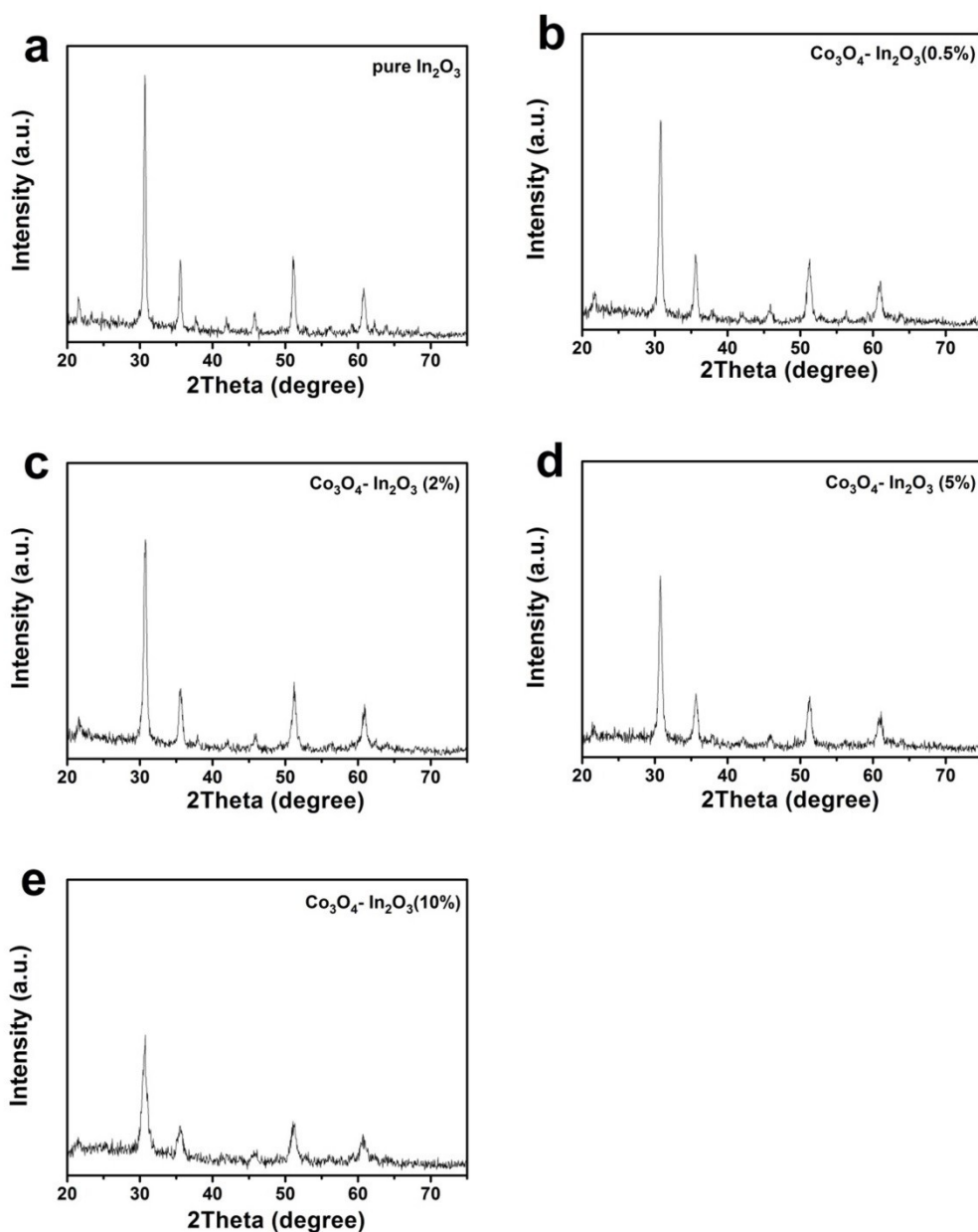


Fig. S1 XRD patterns of (a) pure  $\text{In}_2\text{O}_3$ , (b)  $\text{Co}_3\text{O}_4\text{-In}_2\text{O}_3$  (0.5%), (c)  $\text{Co}_3\text{O}_4\text{-In}_2\text{O}_3$  (2%), (d)  $\text{Co}_3\text{O}_4\text{-In}_2\text{O}_3$  (5%) and (e)  $\text{Co}_3\text{O}_4\text{-In}_2\text{O}_3$  (10%).

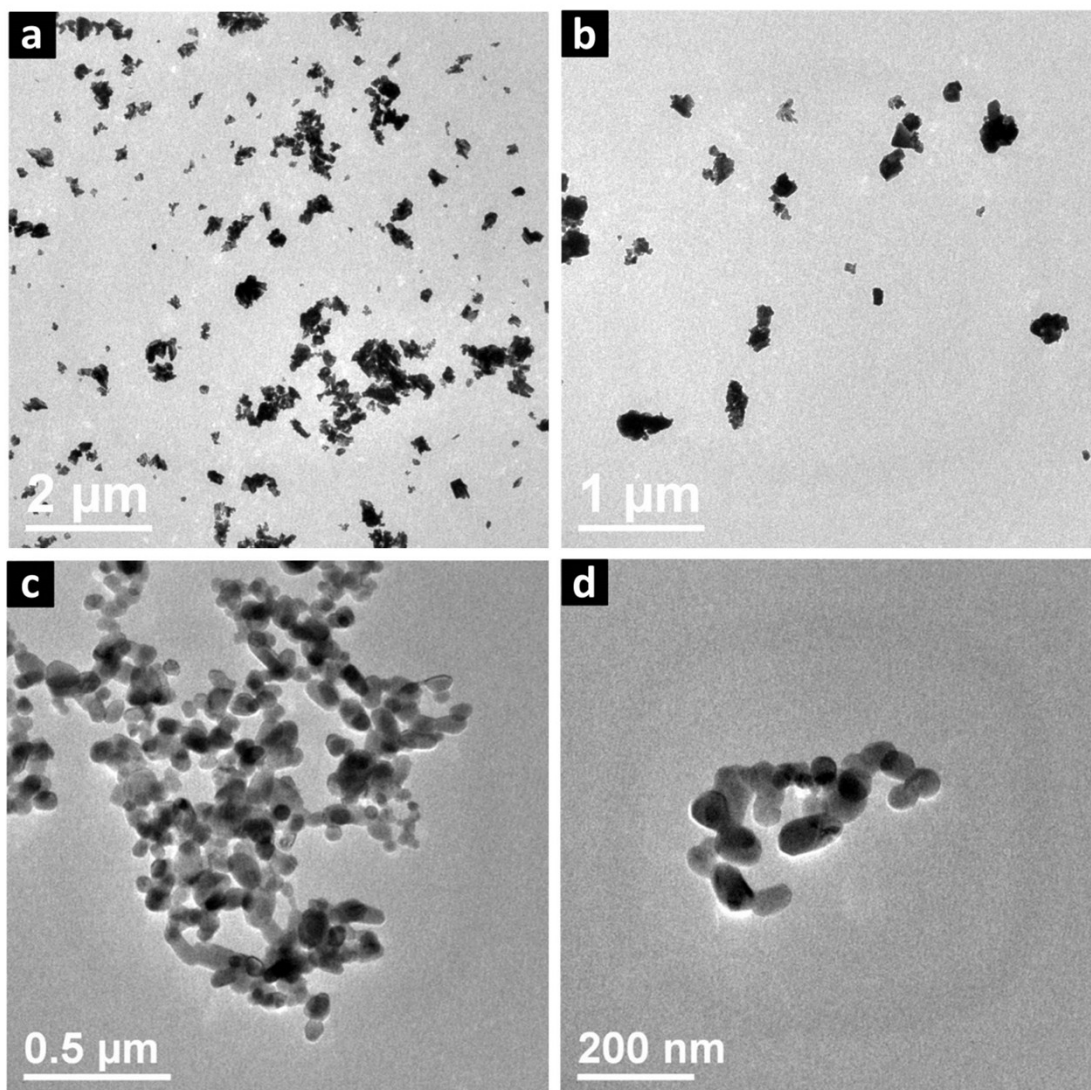


Fig. S2 TEM images of (a, b) pure  $\text{In}_2\text{O}_3$  nanoparticles and (c, d) pure  $\text{Co}_3\text{O}_4$  nanoparticles.

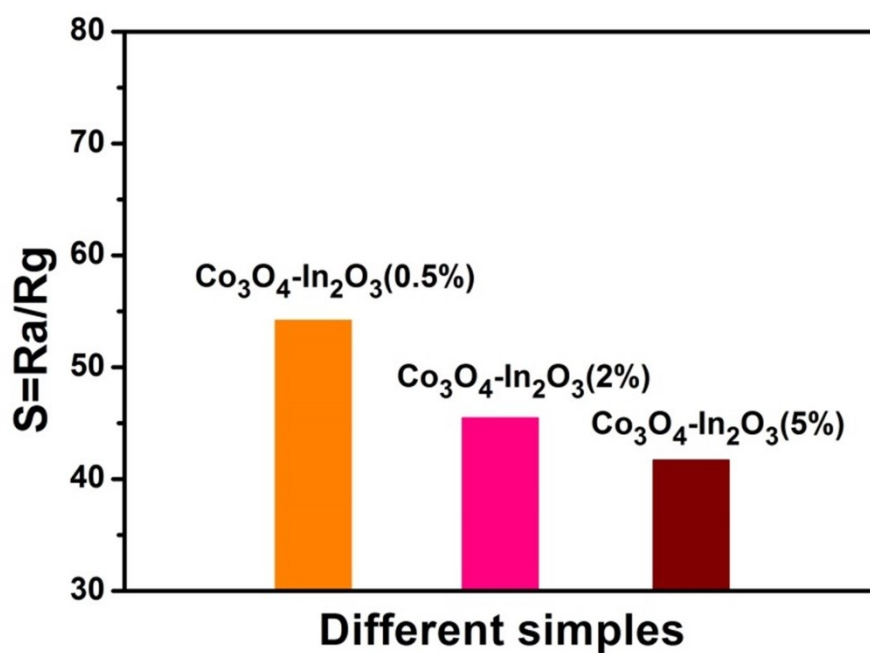


Fig. S3 The response of samples with some other different contents of  $\text{Co}_3\text{O}_4$  towards 100 ppm ethanol.

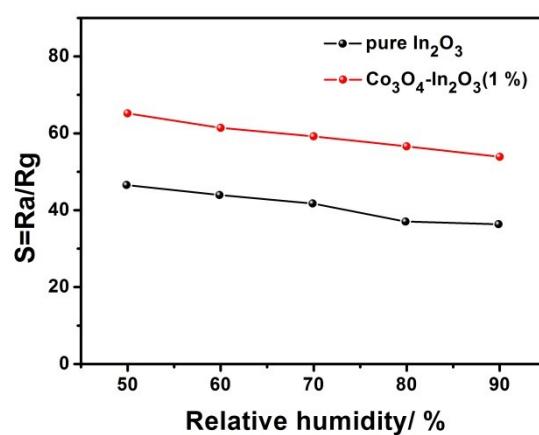


Fig. S4 The response of pure  $\text{In}_2\text{O}_3$  and  $\text{Co}_3\text{O}_4\text{-In}_2\text{O}_3$  (10 %) towards 100 ppm ethanol in different humidity.