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Combustion synthesis of porous Pt-functionalized SnO_2 sheets for isopropanol gas detection with a significant enhancement in response

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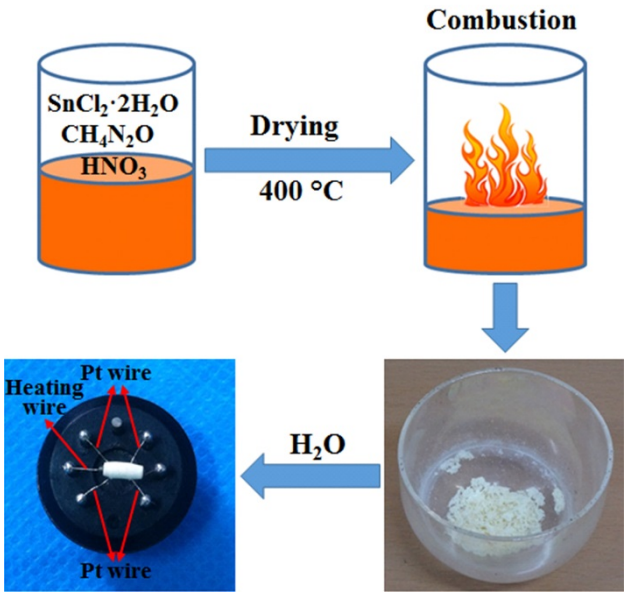

Fig. S1 A schematic illustration of the preparation of porous SnO_2 sheets by a solution combustion synthesis and the assembling of the sensor.

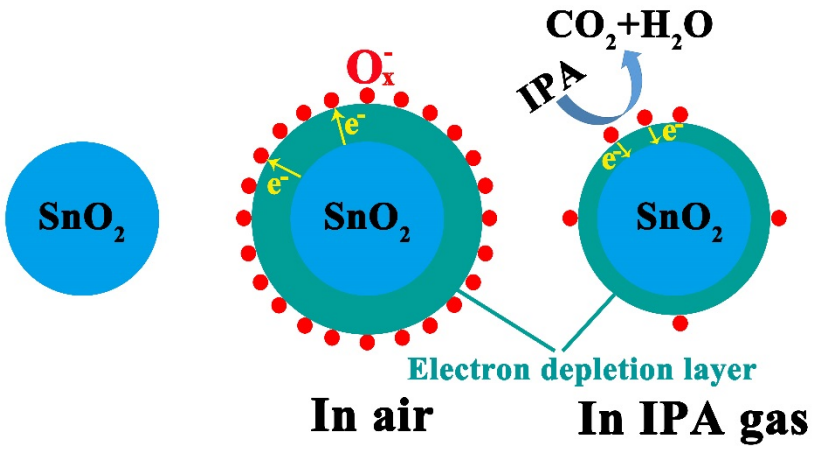

Fig. S2 Schematic diagram of the mechanism for IPA gas sensing.

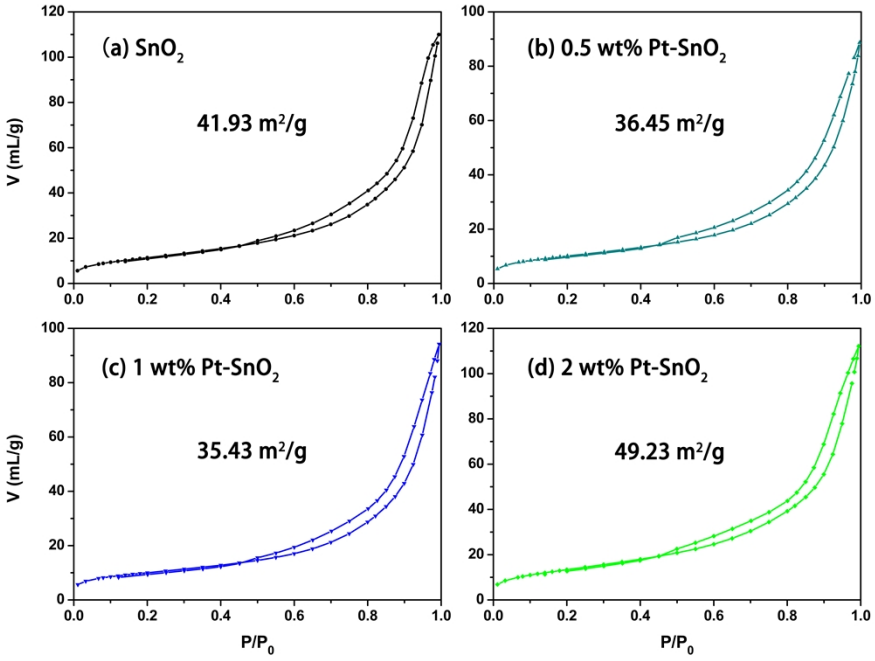

Fig. S3 The nitrogen adsorption-desorption isothermal curves of the as-synthesized (a) pristine SnO_2, (b) 0.5 wt% Pt-SnO_2, (c) 1 wt% Pt-SnO_2, and (d) 2 wt% Pt-SnO_2, respectively.

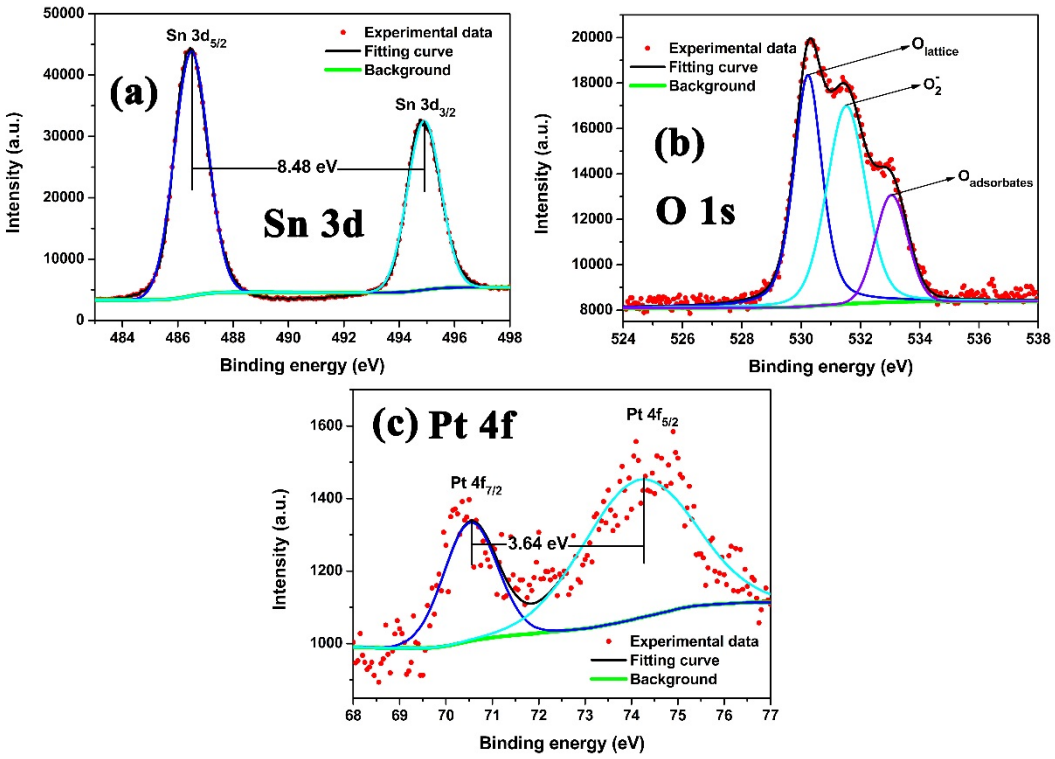

Fig. S4 The high-resolution XPS survey spectra of (a) Sn 3d, (b) O 1s, and (c) Pt 4f in 2 wt% Pt- SnO_2.