Supporting Information

Enhanced room-temperature NO₂ response of NiO-SnO₂ nanocomposites induced by interface bonds at p-n heterojunction

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Fig. S1. Low- and high-magnification SEM images of the bare SnO₂.



Fig. S2. The full XPS spectra of the as-prepared samples.



Fig. S3. Dynamic response-recovery curves to NO_2 in the range of 5-60 ppm at room temperature.



(a) Bare NiO, (b) NiSn31, (c) NiSn11 and (d) NiSn13.



Fig. S4. The dynamic response-recovery curves of the bare SnO_2 to 30 ppm NO_2 at room temperature. (a) The first testing and (b) The second testing.



Fig. S5. Dynamic response curves of the mechanically mixed sample to different NO₂

concentrations at room temperature.



Fig. S6. N_2 adsorption-desorption isotherms (the inset shows the BJH pore-size distribution plots of the bare NiO and the NiSn11 nanocomposites)



Fig. S7. Schematics and band diagrams of the NiO-SnO₂ heterojunction (a) before and (b) after

contact.