Supporting Information

of

A highly stable and sensitive ethanol sensor based on Ru-decorated 1D WO$_3$ nanowires

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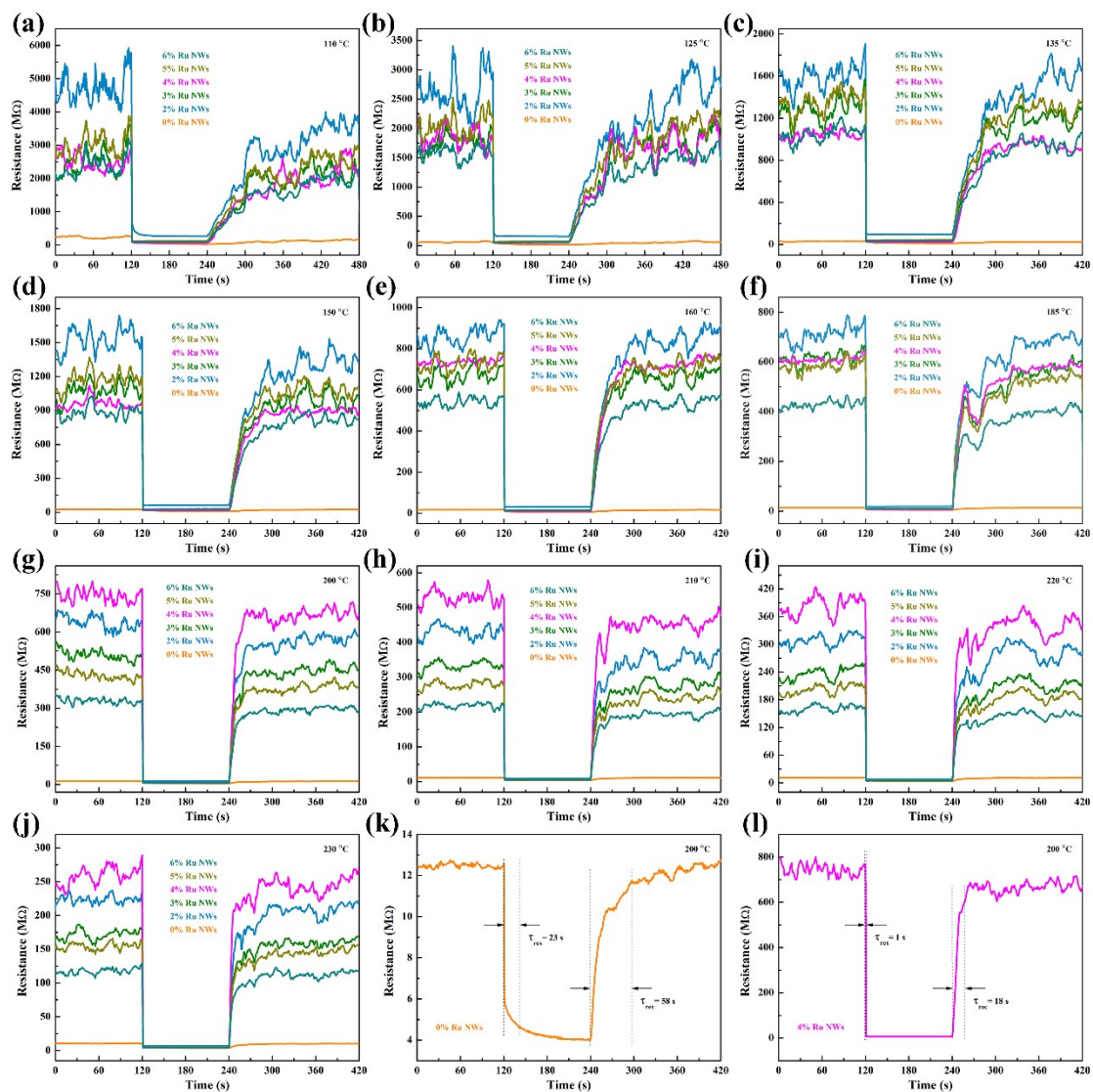
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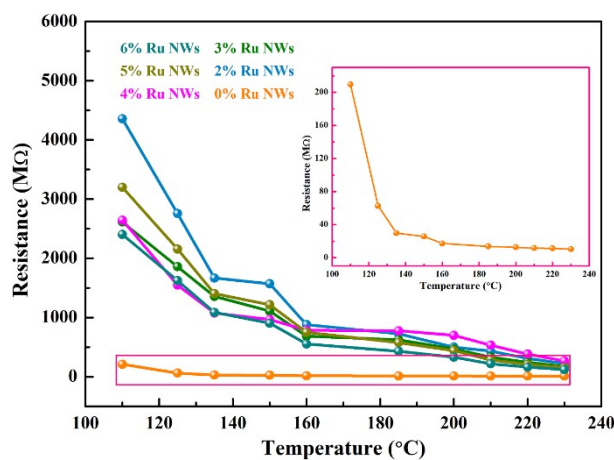[b]*School of Materials and Energy, Lanzhou University, Lanzhou 730000, China*
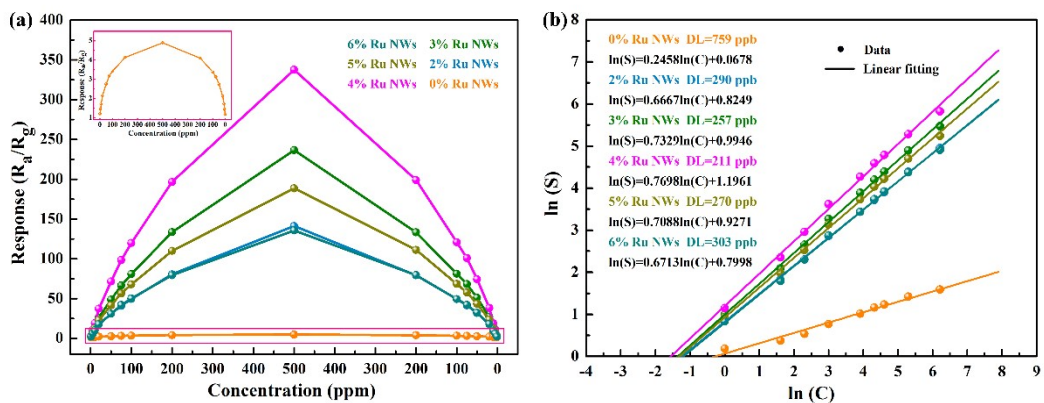
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Fig. S1. (a-j) Dynamic resistance transition curves of sensors to 100 ppm ethanol at various temperatures (110–230 °C); (k, l) dynamic resistance change curves of sensors based on 0%, 4% Ru NWs samples to 100 ppm ethanol at 200 °C.


Fig. S2. The baseline resistance curves of sensors under air condition as a function of operating temperature.

Fig. S3. (a) Corresponding response values for **Fig. 4d**, (b) the relationship between ln(S) and ln(C), S: response values of sensors, C: the concentration of ethanol, DL: detection limit.
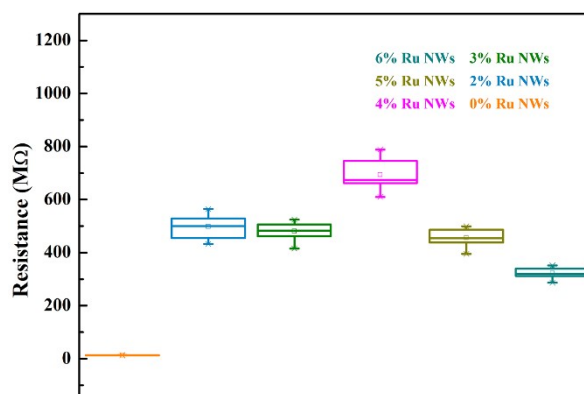
Fig. S4. Statistics of initial resistance for sensors selectivity and repeatability tests.
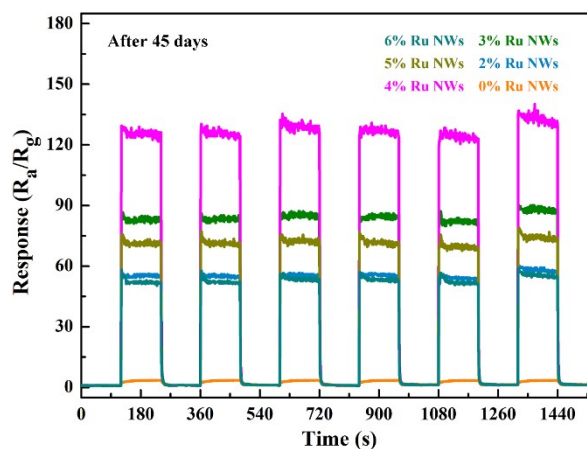
Fig. S5. Repeatability test dynamic response curves of sensors with six cycles under 100 ppm ethanol at 200 °C after being placed in air condition for 45 days.
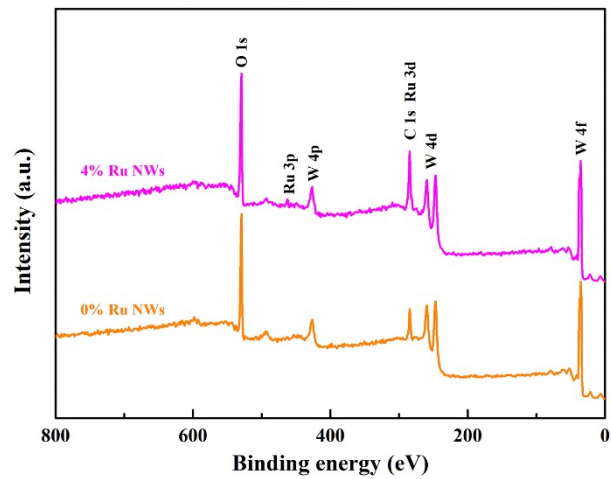
Fig. S6. XPS full survey spectra of 0%, 4% Ru NWs.