



Figure. S1. Responses (S = (Δ R/R_a) *100%) curve of the sensors based on pure WO₃, 1 at%, 2 at%, 3 at%, 5 at% and 8 at% Pd-WO₃ at different working temperature toward 100 ppm acetone.



Figure. S2. Responses curve of the sensors based on 2 at% Pd-WO₃ at 33%, 59%, 75% relative humidity toward 100 ppm acetone.



Figure. S3. The baseline resistances curve of the sensors based on pure WO_3 , 1 at%, 2 at%, 3 at%, 5 at% and 8 at% Pd-WO₃ at different working temperature toward 100 ppm acetone