Supplementary Information (SI) for Journal of Materials Chemistry C.

Delafossite $CuGaO_2$ nanomaterials-based room temperature H_2S selective gas sensor

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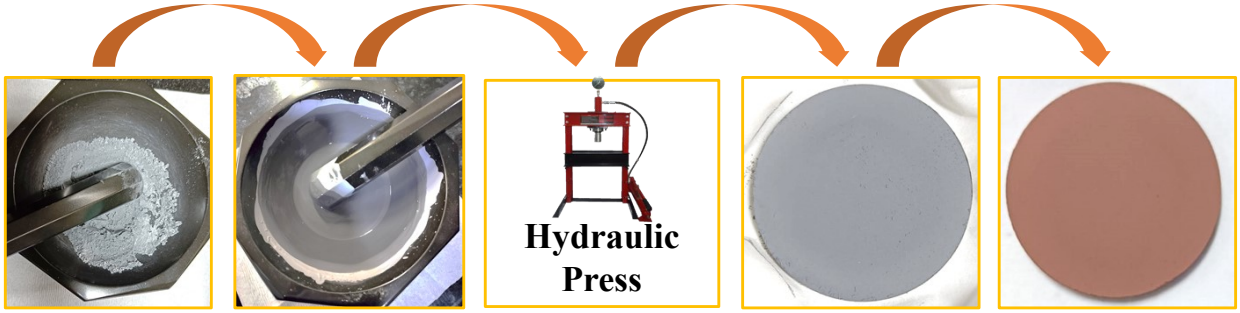
Supplementary Information



Step 1. Grinding for 20hrs. to achieve a uniform power.

Step 2. The powder was dispersed in pure ethanol and again the solution was ground for 15 hrs. to achieve uniform mixing.

Step 3. The powder was pressed into a 2-inch pellet using a hydraulic press under 700kg/cm^2 pressure.

Step 4. The 2-inch pellet was sintered in air at 900°C for 48 hrs.

Before heating

Step 5. The final 2-inch pellet of $CuGaO_2$ sputtering target.

After heating

Fig. S1 Process of synthesis of $CuGaO_2$ sputtering target.

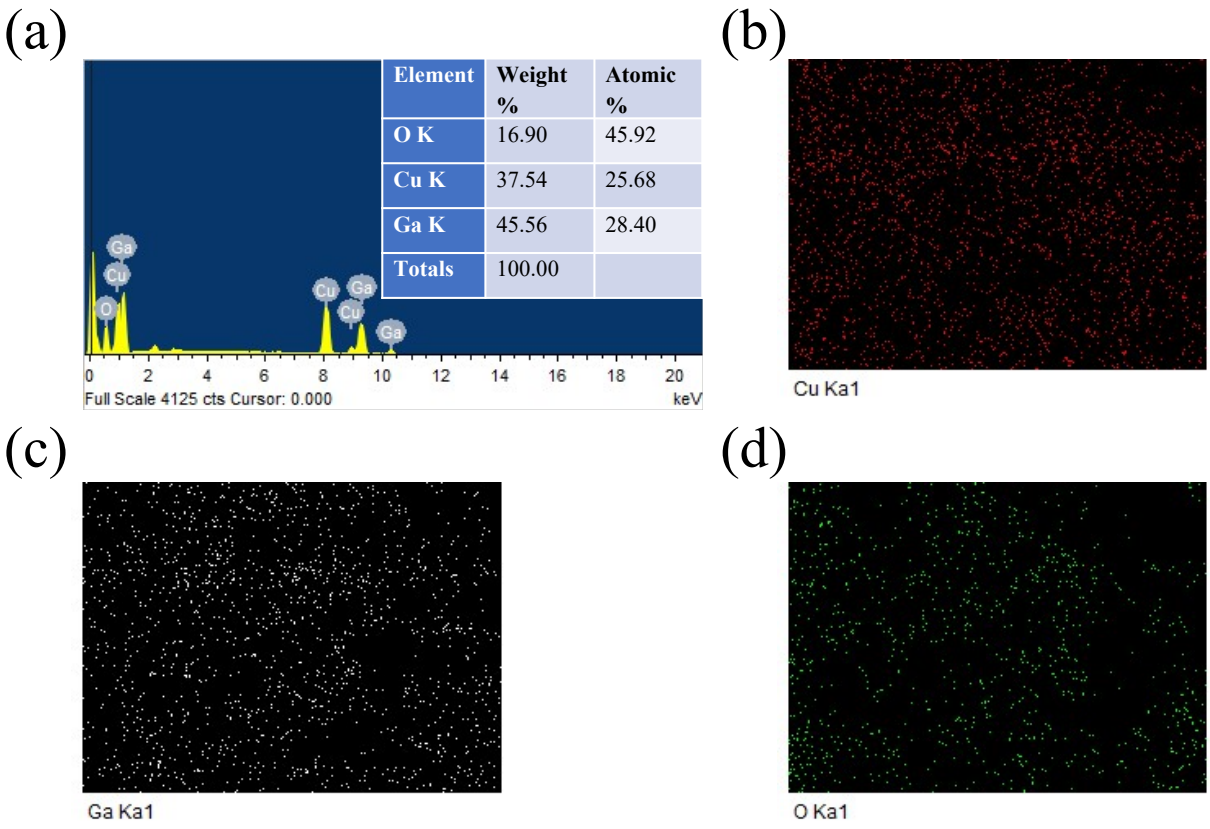


Fig. S2 (a) EDX spectra of $CuGaO_2$. Elemental mapping of $CuGaO_2$ (b) Cu (c) Ga (d) O.

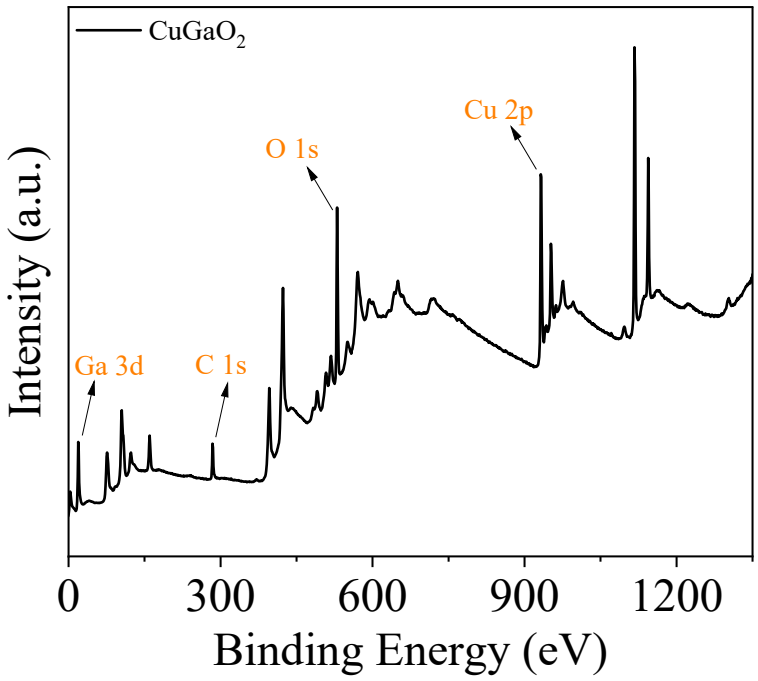


Fig S3 (a) Spectra of $CuGaO_2$ thin film.

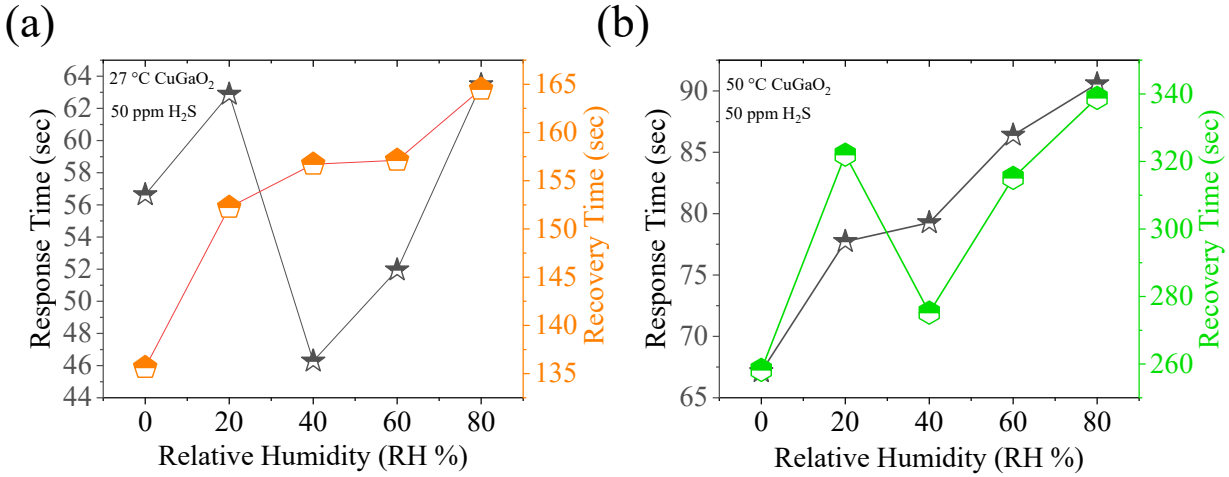


Fig. S4 (a) Response and recovery time for different RH at RT (b) Response and recovery time for different RH at 50 °C.