

Rapid synthesis of CdS nanowire mesh via simplistic wet chemical route and their NO₂ gas sensing properties

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Supplementary Information

Fig. (S1): I-V characteristics of Ag-CdS (sample CdS:20)

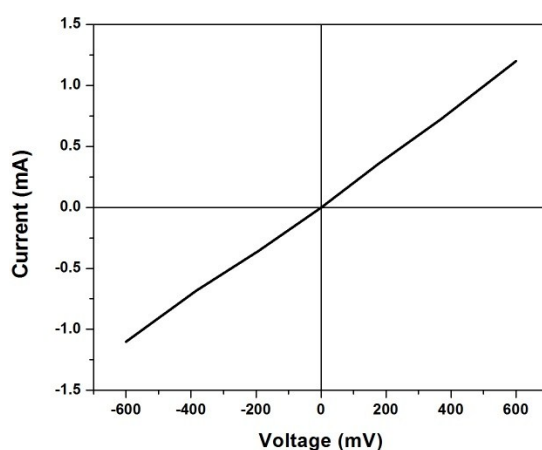


Fig. (S2): XPS spectra of all CdS thin film samples (a) Cd spectrum and (b) S spectrum

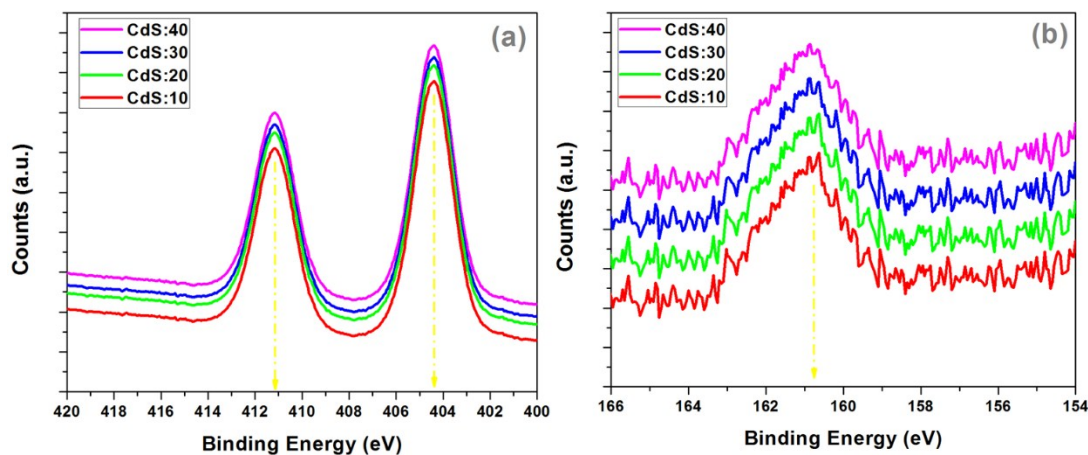


Fig. (S3): The room temperature optical absorption spectrum of all CdS thin films. Inset shows the optical band gap energy spectra.

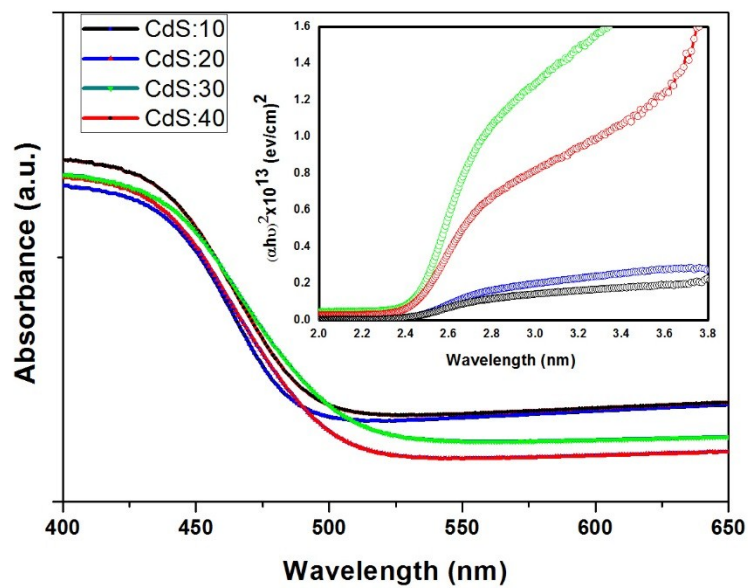


Fig. (S4): The steady state region of resistance versus time graphs for sample CdS:20 at 200 °C in (a) 20 ppm, (b) 40 ppm, (c) 60 ppm, (d) 80 ppm.

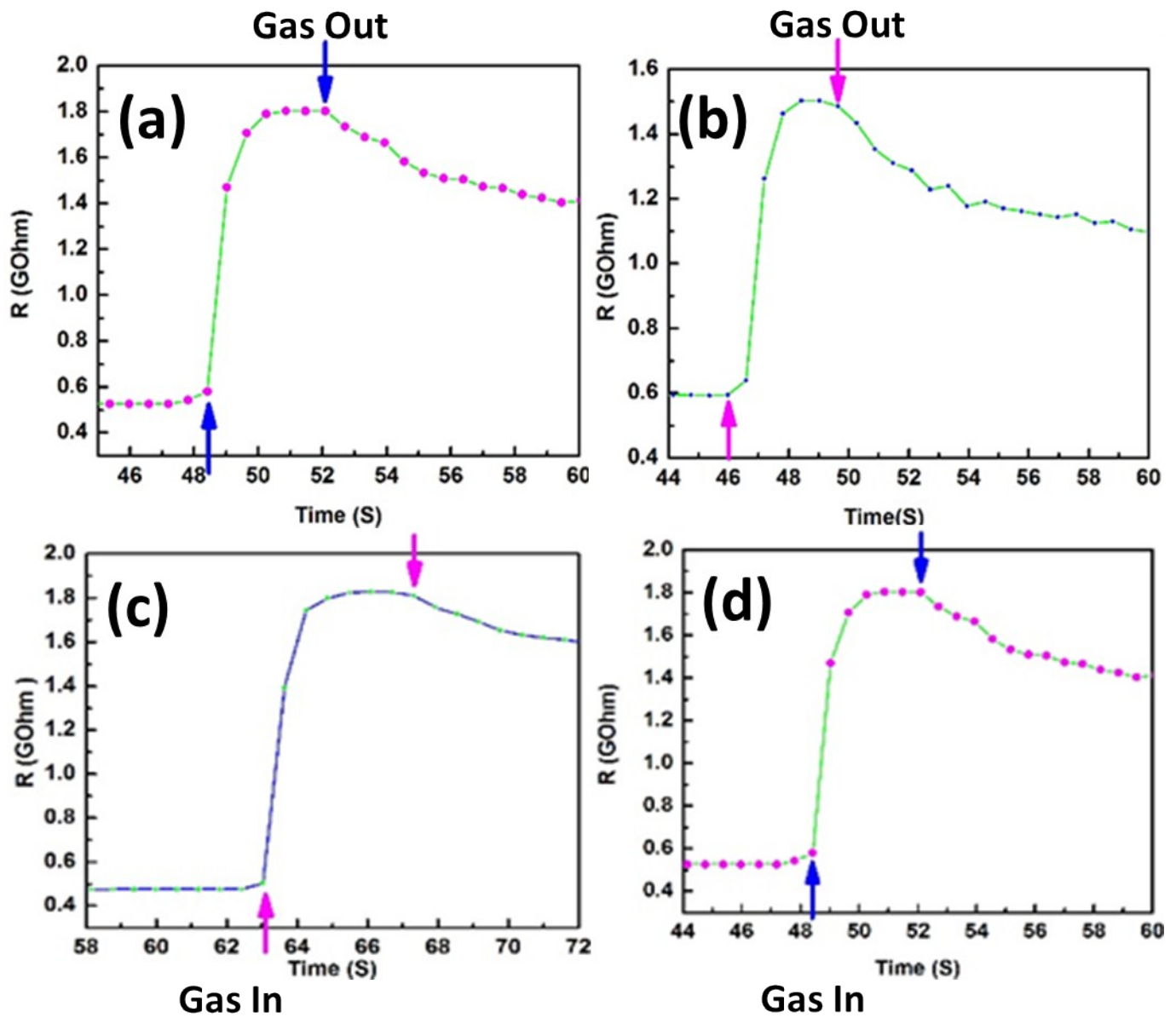


Fig. (S5): Variation of $\log(\rho)$ as a function of inverse of temperature of all CdS thin film samples annealed at 150 °C. Following figure shows that, the electrical resistivity decreases with increase in temperature.

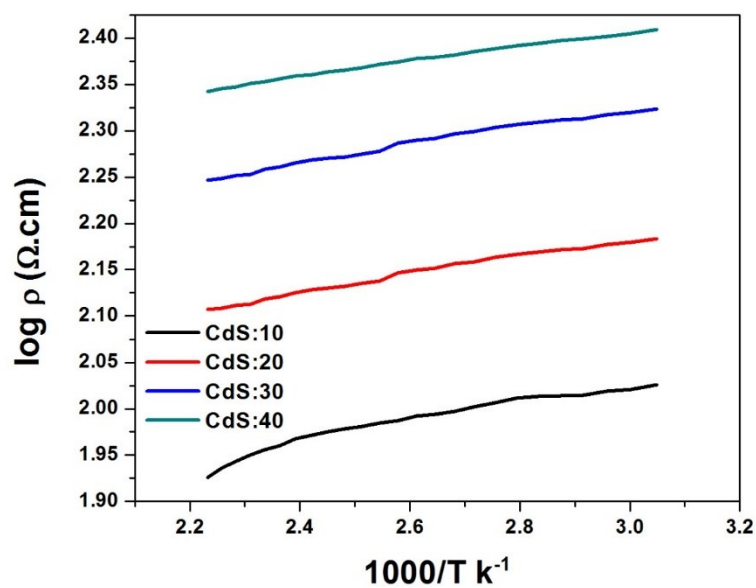


Fig. (S6) The SEM images of annealed CdS thin films samples (a1 and 2) CdS:10, (b1 and 2) CdS:20 and (c1 and 2) CdS:30. The CdS thin films were annealed at 150 °C.

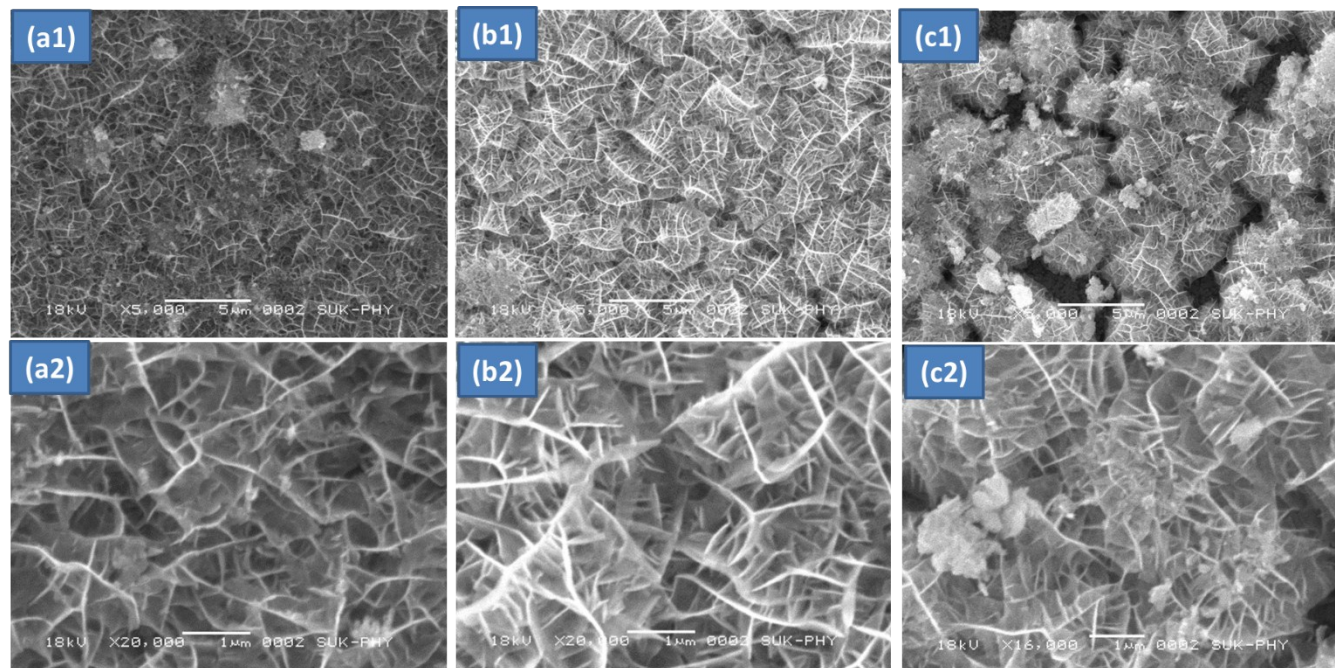


Fig. (S7): The resistance versus time graphs for sample CdS:20 at 200 °C in (a) NH₃, (b) SO₂, (c) acetone, (d) LPG

