Supporting information for

**CuO/V\textsubscript{2}O\textsubscript{5} hybrid nanowires for highly sensitive and selective H\textsubscript{2}S gas sensor**

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A typical TEM bright-field image of the CuO-decorated V\textsubscript{2}O\textsubscript{5} nanorod has been shown on the left-hand-side of Fig. S1. An interface region on the right-hand-side of Fig. S1 shows clearly that the CuO nanoisland adheres on the V\textsubscript{2}O\textsubscript{5} nanorod together with lattice fringes on both of the CuO and V\textsubscript{2}O\textsubscript{5} phases. The lattice-fringe spacings of the CuO nanoisland have been determined; in which, 0.268 and 0.245 nm correspond to the (110) and (11-1) planes of the monoclinic CuO structure, respectively.

![Figure S1. High-resolution bright-field TEM image of the CuO/V\textsubscript{2}O\textsubscript{5} hybrid nanowires.](image-url)