Supporting Information

Ultrafast response and high selectivity toward acetone vapor using hierarchical structured TiO$_2$ nanosheets

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Figure S1. The schematic of gas sensor device and measuring system.

Figure S2. XRD patterns of the collected SeO₂ powder.
Figure S3. (a) XPS survey spectrum, (b) Ti 2p and (c) Se 3d of TiSe$_2$. 
Figure S4. Nitrogen gas adsorption-desorption isotherms of TiSe$_2$ nanosheets. The inset is the corresponding BJH pore size distribution.