Supporting Information (SI):

Three-Dimensional Ultrathin In$_2$O$_3$ Nanosheets with Morphology-Enhanced Activity for Amine Sensing

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Figure S1. XRD patterns of the resulting In-glycerol microspheres or nanosheets after 1h and 6h solvothermal reaction, respectively.

Figure S2. FTIR adsorption spectra of the resulting In-glycerol microspheres (1h) and nanosheets (6h) after 1h and 6h solvothermal reaction, respectively.
Figure S3. TGA curves of the resulting In-glycerol microspheres or nanosheets after 1h and 6h solvothermal reaction, respectively.

Figure S4. FTIR spectrum of tri-n-propylamine (TPA).
Figure S5. 20 cycles of on and off sensing tests towards 5 ppm TPA at the operation temperature of 230 °C are performed: (A) Dynamic on-off curve with the red arrows indicating the time when the sensor is exposed to the TPA, and blue arrows representing the time when the sensor is put in air to recover. (B) The calculated response values \((R_a/R_g)\) for 20 cycles’ experiments. (C) The corresponding response and recovery time of these 20 measurements are shown as well.