Supporting information

Enhanced chemiresistive sensing performance of well-defined porous CuO-doped ZnO nanobelts toward VOCs

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Table S1. Theoretical and experimental concentration of the doped Cu (at %) for the porous CuO-doped ZnO nanobelts.

| Sample   | CZ-1 | CZ-2 | CZ-3 | CZ-4 | CZ-5 |
|----------|------|------|------|------|------|
| Theoretical concentration of Cu (at %) | 1    | 2    | 3    | 4    | 5    |
| Experimental concentration of Cu (at %) | 1.19 | 2.22 | 3.29 | 4.26 | 5.16 |
| Sample                     | Working Temperature (°C) | $\tau_{\text{res}}/\tau_{\text{rec}}$ (s) | Acetone Concentration (ppm) | S ($R_a/R_g$) | Refs          |
|---------------------------|--------------------------|------------------------------------------|----------------------------|--------------|---------------|
| ZnO microsphere           | 330                      | 11/17                                    | 100                        | 22           | [1]           |
| Au/ZnO flowers            | 280                      | 15/2                                     | 100                        | 18.8         | [2]           |
| Co/ZnO nanofibers         | 360                      | 6/4                                      | 100                        | 4            | [3]           |
| Ni/SnO$_2$ nanofibers     | 340                      | /-                                       | 100                        | 3.8          | [4]           |
| Cu/ZnO/GO                 | 340                      | 15/15                                    | 10                         | 9.4          | [5]           |
| Cu/ZnO flowers            | 220                      | /-                                       | 10                         | 7            | [6]           |
| CuO-doped porous ZnO nanobelts | 325                   | 6/4                                      | 100/10                     | 50/14        | this work     |

$^a\tau_{\text{res}}$: response time; $\tau_{\text{rec}}$: recovery time.

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