

Supplementary Material (ESI) for CrystEngComm  
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Electronic Supplementary Informations

**Large-scale selective preparation of porous SnO<sub>2</sub> 3D architectures and  
their gas-sensing property**

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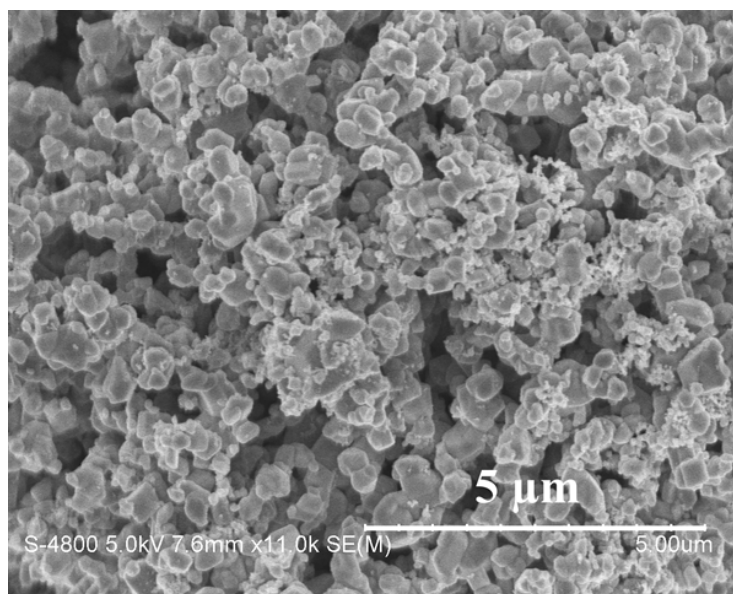
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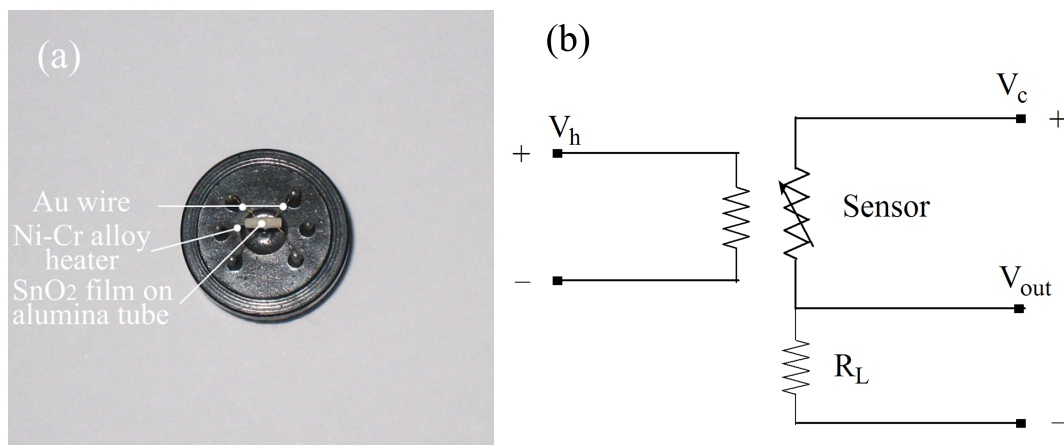
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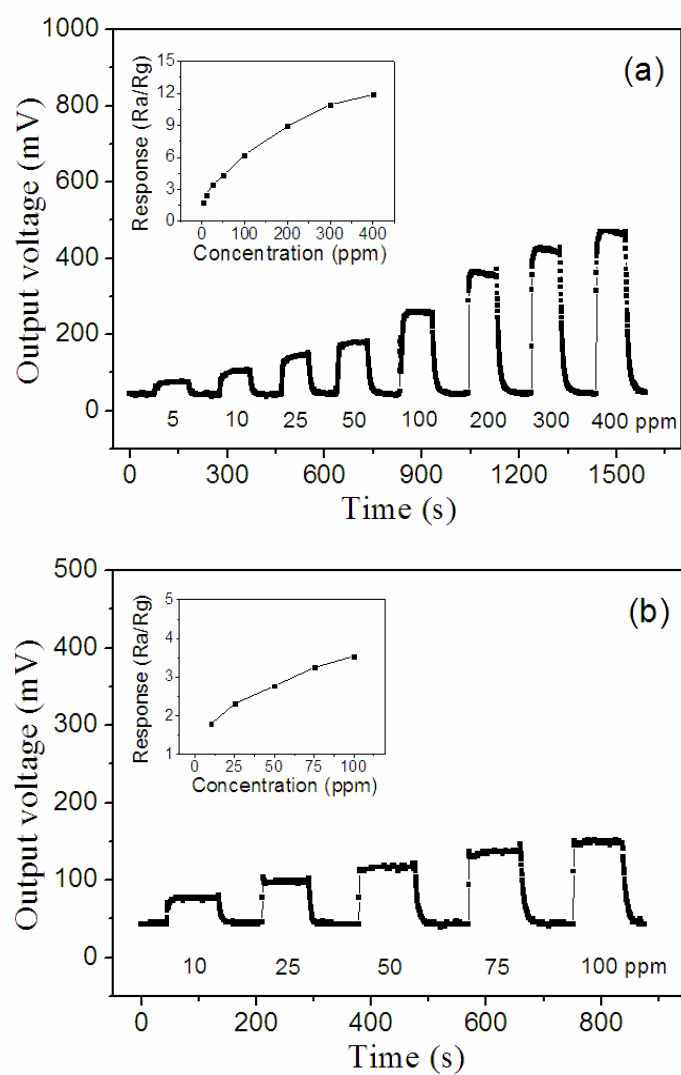
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**Figure S1.** SEM image of the nonporous commercial SnO<sub>2</sub> powders.



**Figure S2.** Photograph of the sensor (a), and test principle of the gas sensing measurement system (b) ( $V_h$ : heating voltage;  $V_c$ : circuit voltage;  $V_{out}$ : signal voltage and  $R_L$ : load resistor).



**Figure S3.** Real-time response curves and sensor responses (insert) of the commercial SnO<sub>2</sub> powder sensor upon exposure to different concentrations of toluene (a), formaldehyde (b) at a working temperature of 240 °C.

X-ray powder diffraction data of hexagonal mushistonite  $\text{CuSn}(\text{OH})_6$

$2\theta$ CuK $\alpha$ $\lambda=1.5418\text{\AA}$	$d$ ( $\text{\AA}$ )	$I/I_1$	$hkl$
12.56	7.0428	56	100
21.80	4.0731	30	110
25.22	3.5285	100	200
29.76	2.9999	8	201
32.39	2.7621	16	102
33.56	2.6682	19	210
38.22	2.3532	3	300
39.35	2.2877	57	202
44.43	2.0375	19	220
45.41	1.9954	12	212
46.32	1.9585	6	310
49.13	1.8528	13	103
51.73	1.7657	11	400
54.34	1.6868	31	203
55.96	1.6417	5	222
56.87	1.6176	2	312
59.92	1.5425	2	321
60.80	1.5221	12	410
61.86	1.4986	4	402
63.23	1.4694	1	004
65.36	1.4266	3	322
66.28	1.4090	2	500
67.74	1.3822	7	204
70.42	1.3360	6	420
72.04	1.3098	1	403
76.93	1.2383	2	323
78.27	1.2204	7	332
79.11	1.2096	5	422

Molecular Weight: 284.28

Sys: Hexagonal

Cell parameters:  $a = b = 8.1431 \text{\AA}$ ,  $c = 6.0131 \text{\AA}$

Monochromators