Supporting Information

Table S1 Sensitivity, response and recovery times of SnO_2-ZnO CSNs sensors for 1 ppm CO or NO_2.

Shell thickness (nm)	Gas concentration (1 ppm)					
	Sensitivity		Response time (sec)		Recovery time (sec)	
	CO	NO_2	CO	NO_2	CO	NO_2
0	1.3	48.0	276	217	355	46
5	1.7	3.0	440	75	448	43
20	6.5	1.6	203	69	252	62
35	1.8	2.7	186	209	368	226
70	2.3	3.2	179	198	448	191
120	0.9	2.7	494	195	605	149

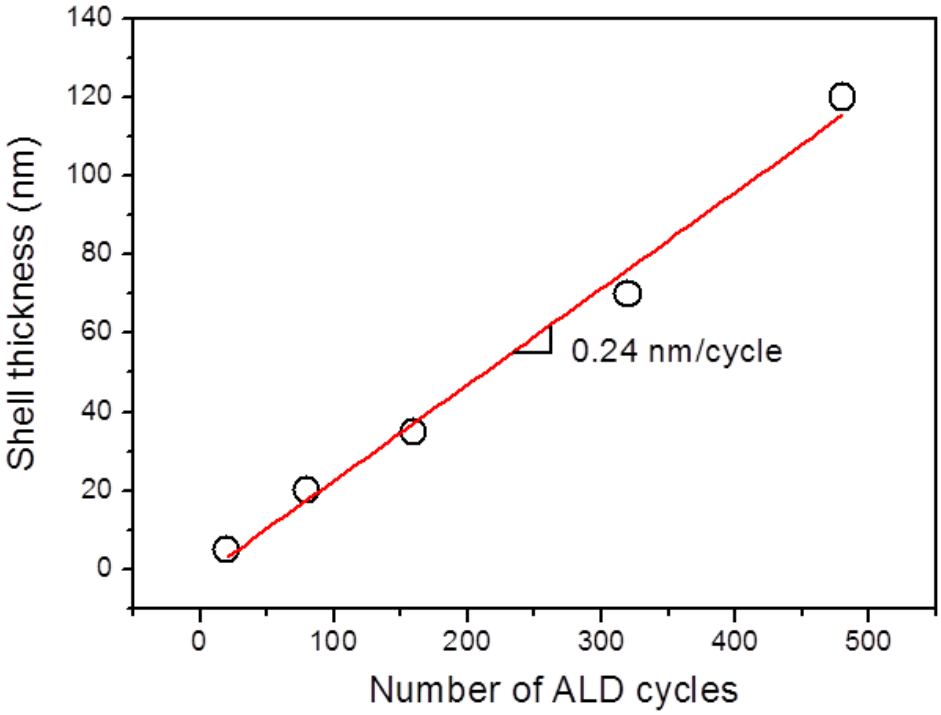

Fig. S1 ZnO shell thickness of SnO_2–ZnO CSNs as a function of the number of ALD cycles. The slope corresponds to the growth rate of ZnO shells.

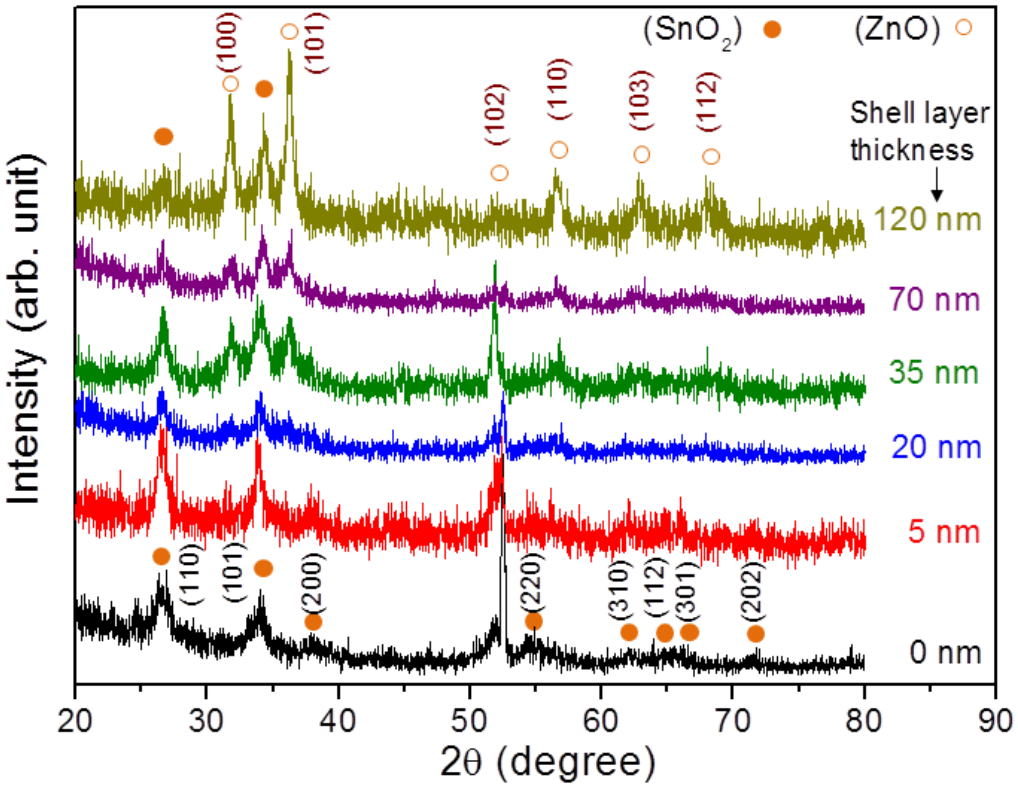

Fig. S2 XRD patterns of SnO_2-ZnO CSNs prepared with different numbers of ALD cycles. For comparison, an XRD pattern of bare SnO_2 nanofibers is included.

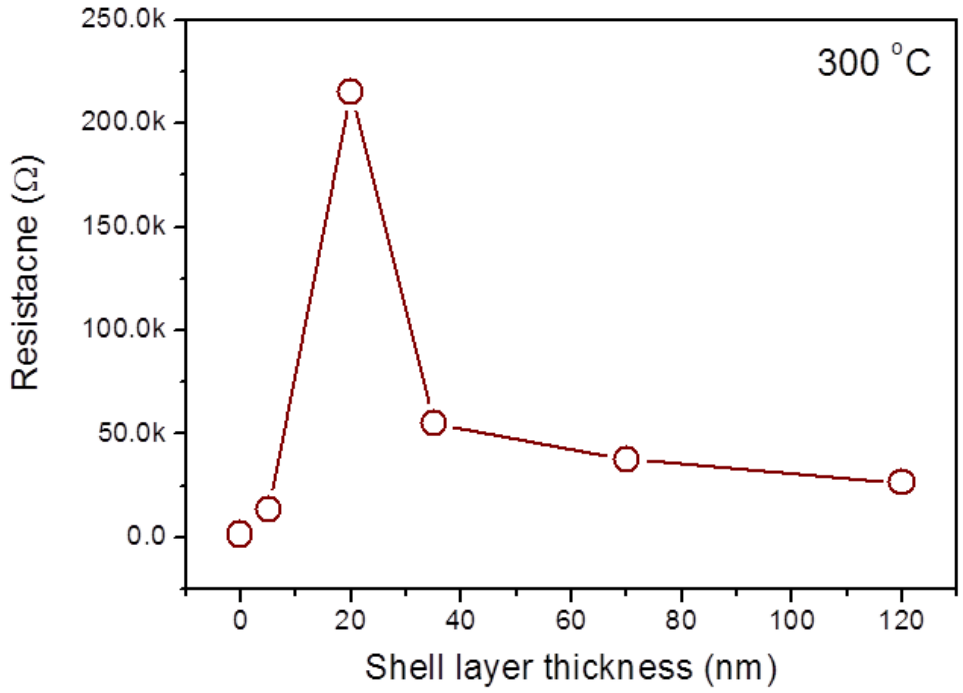

Fig. S3 Change of the resistance of SnO_2–ZnO CSNs as a function of shell thickness in air at 300 °C.