Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Supplementary Information

Controllable assembly of SnO_2 nanocubes onto TiO_2 electrospun nanofibers toward humidity sensing applications

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Table. Chemical Component and Structural Characteristics of the Synthesized Heterostructures

sample	side length of the SnO_2 nanocube (nm)	Sn/Ti ratio in the heterostructure (actual [a])	diameter of the heterostructure (nm)
TiO_2	0	0	100~180
STH-1	20~50	0.19	120~220
STH-2	30~60	0.42	160~250
STH-3	60~80	0.86	200~280

[a] The values are determined by EDX results.

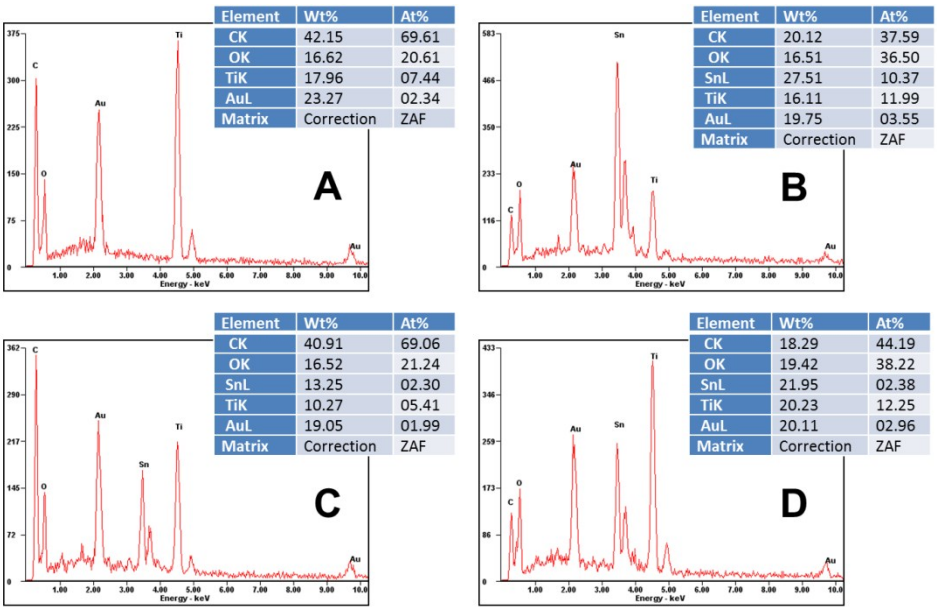

Figure S1. (A) EDX spectra from Figure 2A; (B) EDX spectra from Figure 2D; (C) EDX spectra from Figure 2C; (D) EDX spectra from Figure 2A.

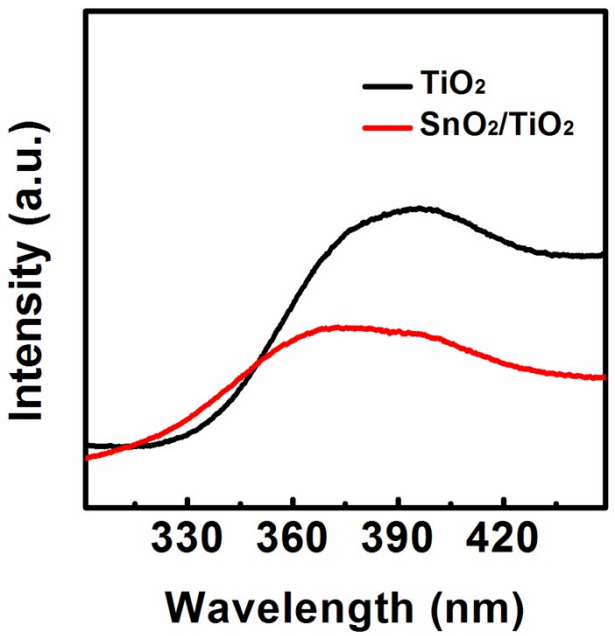

Figure S2. Photoluminescence (PL) spectra of TiO_2 electrospun nanofibers and SnO_2/TiO_2 (STH-1).

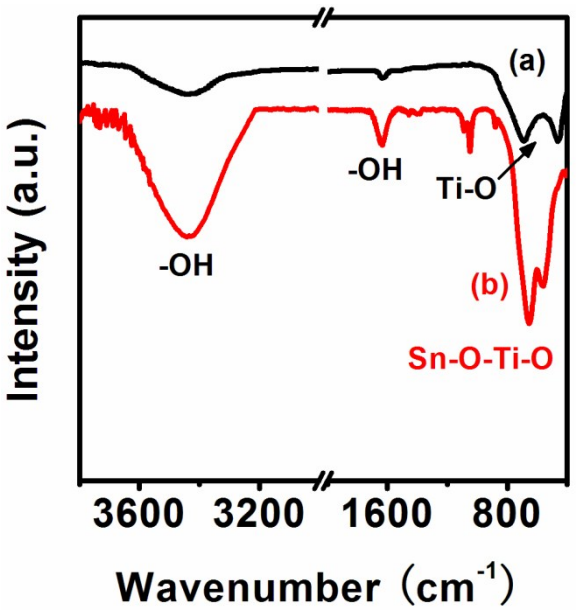

Figure S3. Fourier transform infrared (FT-IR) spectra of (a) TiO_2 electrospun nanofibers and (b) STH-1.

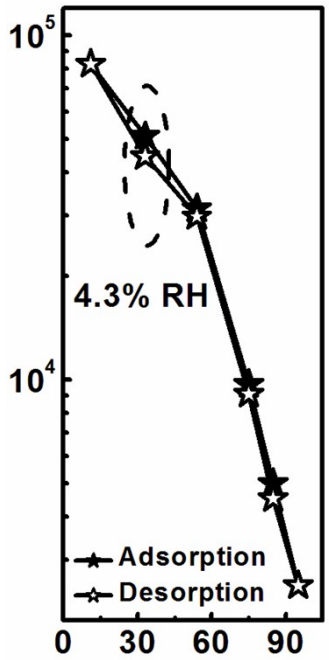

Figure S4. The humidity hysteresis characteristics of the TiO_2 electrospun nanofibers-based nanosensors.

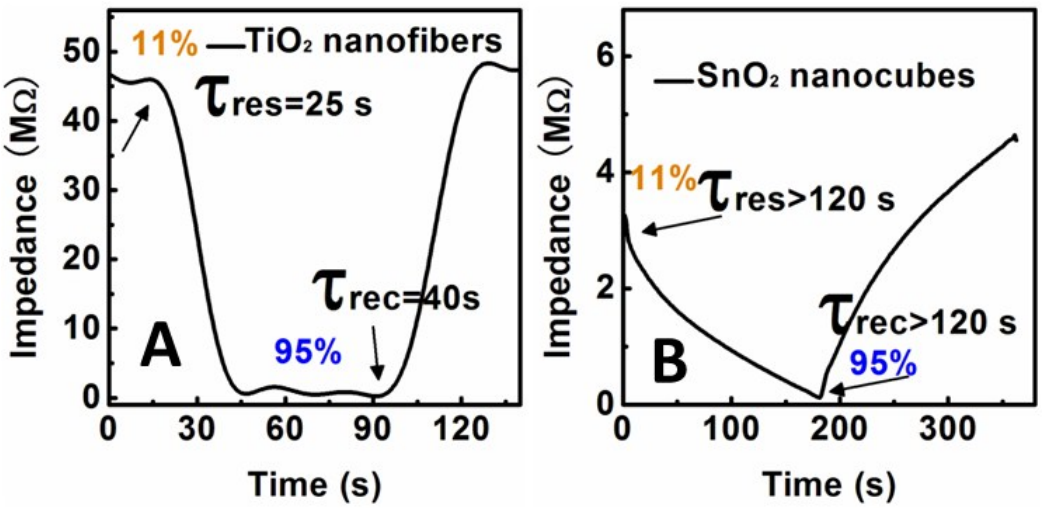

Figure S5. Response and recovery curves of nanosensors fabricated by the as-synthesized (A) TiO_2 nanofibers and (B) SnO_2 nanocubes.