

## **Two-step deposition of Ag nanowires/Zn<sub>2</sub>SnO<sub>4</sub> transparent conductive electrodes for antistatic coatings**

Jing Li<sup>a,b</sup>, Fengmei Chen<sup>b</sup>, Haidong Li<sup>b\*</sup>, Hongwen Zhang<sup>a</sup>, Gang Wang<sup>c</sup> and Daocheng Pan<sup>c\*</sup>

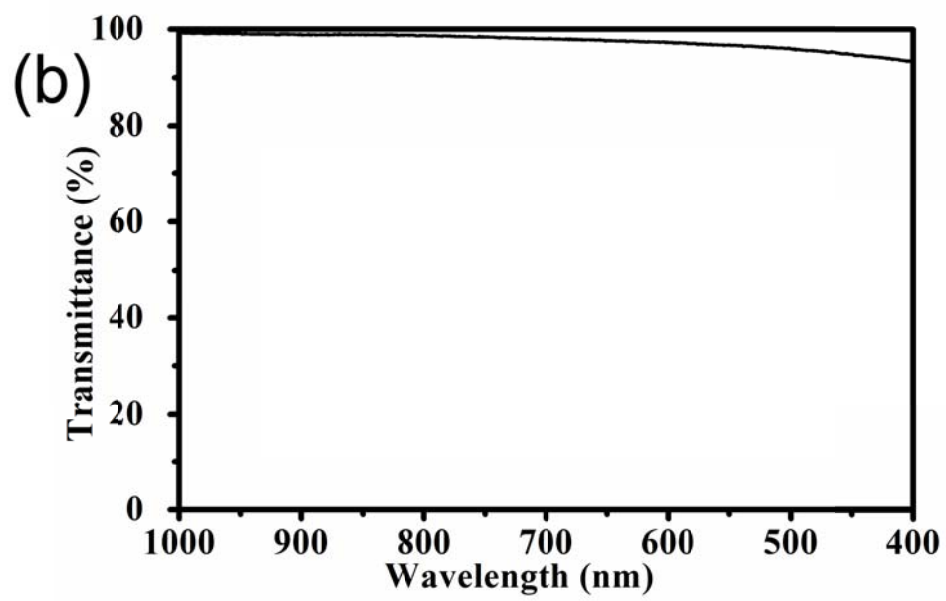
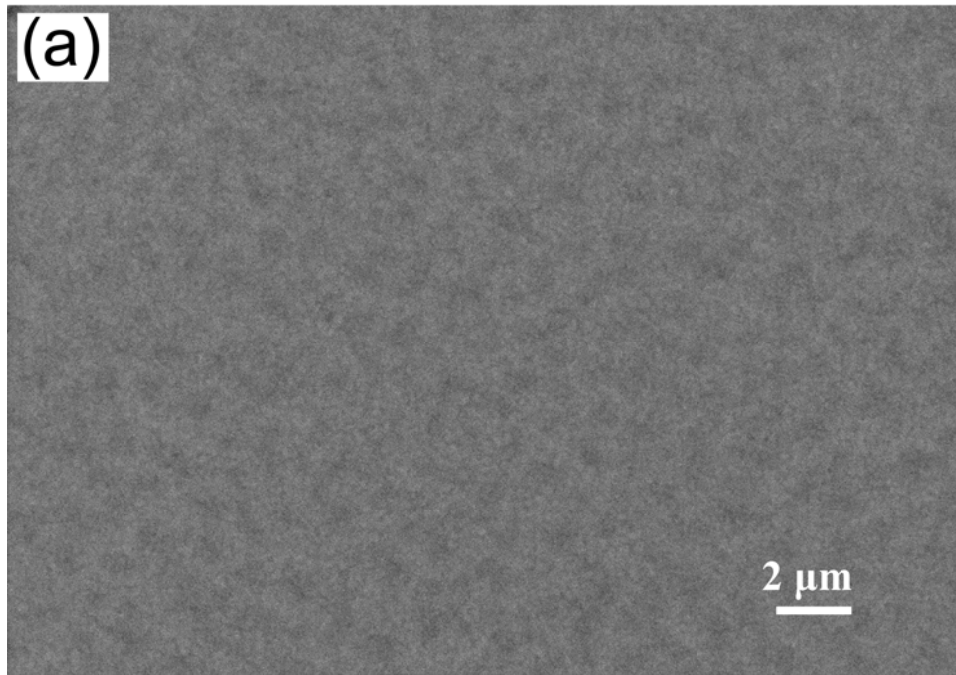
*<sup>a</sup>School of Materials Science and Engineering, Changzhou University, Changzhou, Jiangsu 213164, China;*

*<sup>b</sup>College of Material and Textile Engineering, Jiaying University, Jiaying, Zhejiang 314001, China;*

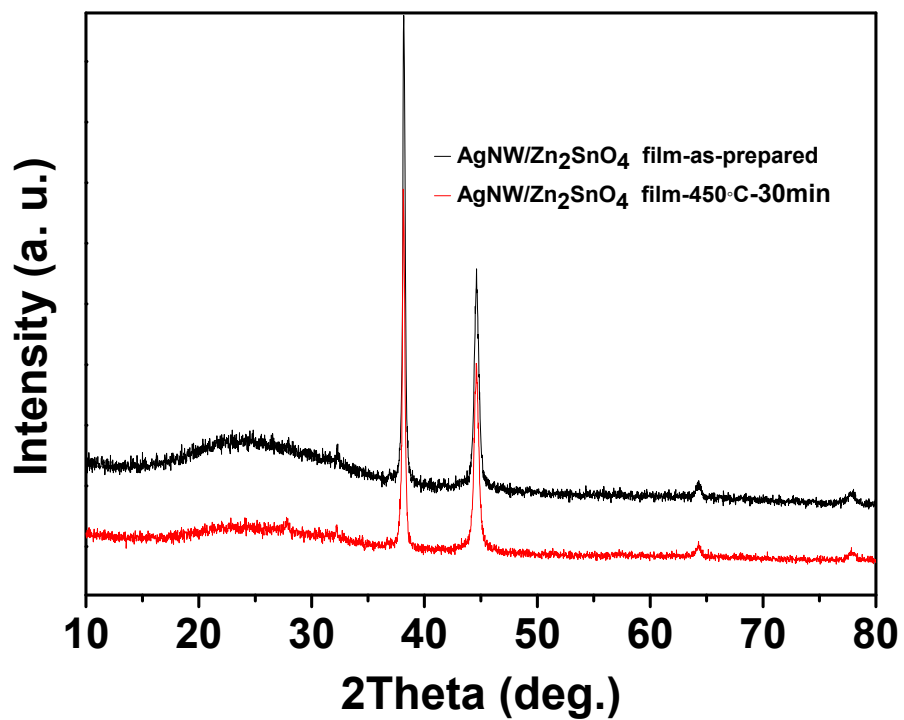
**E-mail:** hdlipr@163.com

*<sup>c</sup>State Key Laboratory of Rare Earth Resource Utilization, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, 5625 Renmin Street, Changchun, Jilin 130022, China*

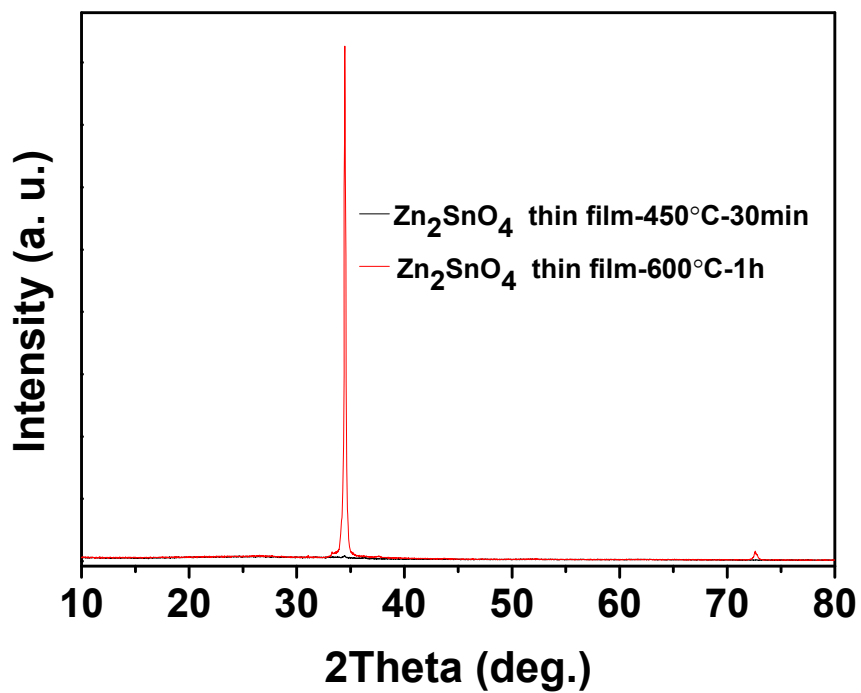
**E-mail:** pan@ciac.ac.cn



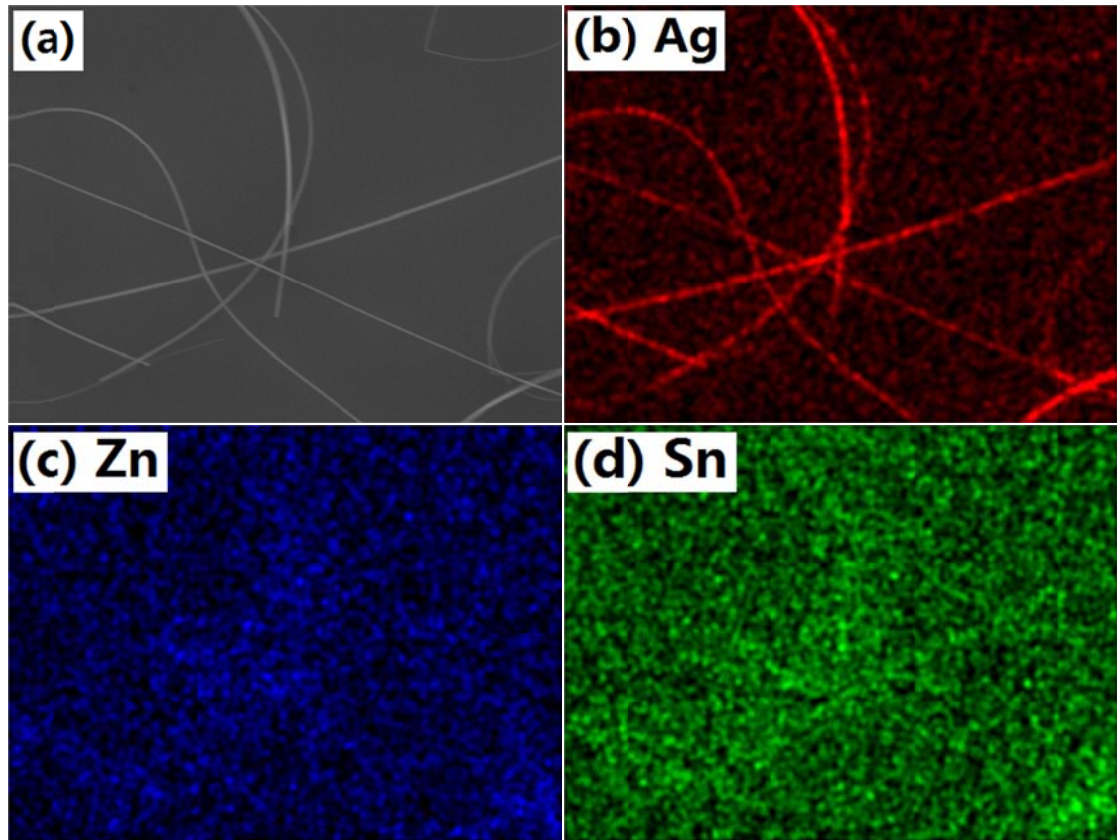
**Fig. S1.** SEM image (a) and transmission spectrum (b) of a pure  $\text{Zn}_2\text{SnO}_4$  film.



**Fig. S2.** XRD patterns of as-prepared AgNW/Zn<sub>2</sub>SnO<sub>4</sub> composite thin film and the corresponding thin film annealed at 450°C for 30min.



**Fig. S3.** XRD patterns of pristine Zn<sub>2</sub>SnO<sub>4</sub> thin films (~1.8 μm) annealed at 450 and 600 °C, respectively.



**Fig. S4.** SEM image (a) and corresponding elemental maps (b, c and d) of as-prepared AgNW/Zn<sub>2</sub>SnO<sub>4</sub> composite thin film on silicon wafers.

**Table S1.** The relationships between the thickness of the  $Zn_2SnO_4$  layer and the concentration of  $Zn_2SnO_4$  precursor solution as well as the spin-coating rate.

Thickness of the $Zn_2SnO_4$ layer (nm)				
	1 mL ethanol	2.5 mL ethanol	5 mL ethanol	10 mL ethanol
2000 rpm, 10 s	855	335	156	56
2600 rpm, 10 s	770	293	120	51
2600 rpm, 20 s	629	250	64	24