Supporting Information

Enhanced permittivity and multi-region microwave absorption of nanoneedle-like ZnO in X-band at elevated temperature

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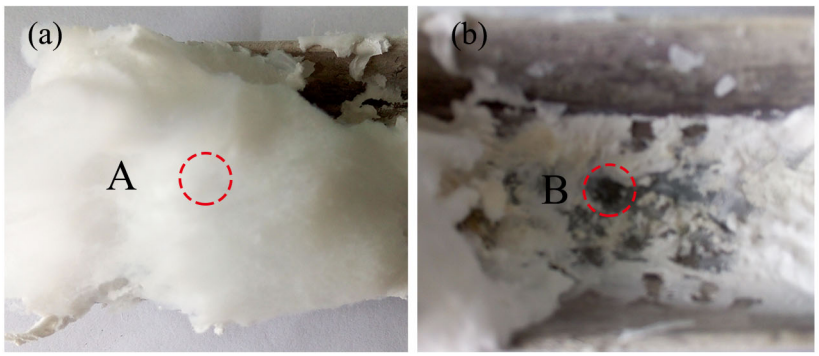
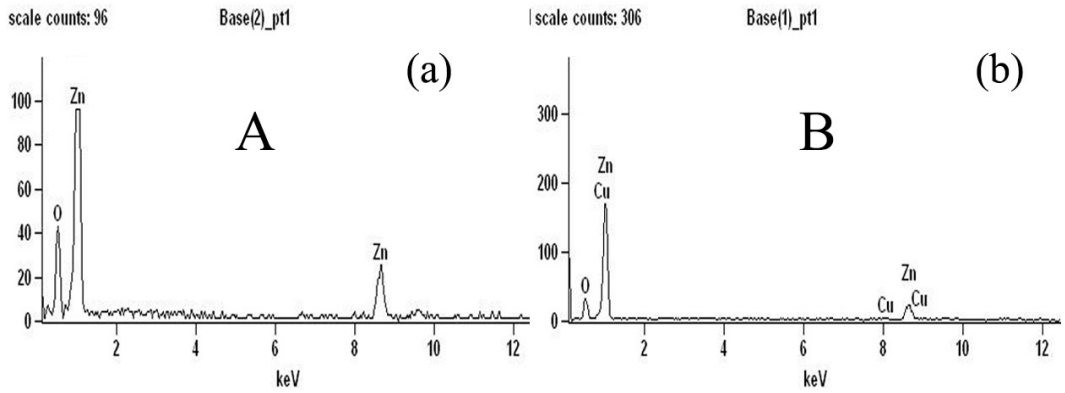


Fig.S1 The photographs of the samples in the (a) top and (b) bottom of the quartz boat.



Weight %

	O-K	Cu-K	Zn-K
Base(2)_pt1	18.98	0.00	81.02

Atom %

	O-K	Cu-K	Zn-K
Base(2)_pt1	48.91	0.00	51.09

Weight %

	O-K	Cu-K	Zn-K
Base(1)_pt1	12.60	1.21	86.19

Atom %

	O-K	Cu-K	Zn-K
Base(1)_pt1	37.06	0.89	62.04

Fig.S2 The EDS patterns and data of the samples A and B in Fig.S1.

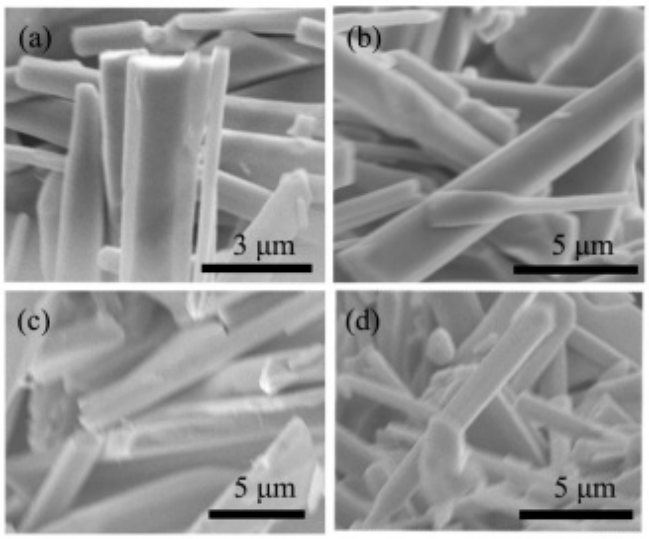


Fig.S3 The cross sectional SEM images of the pressed ZnO_n sample.

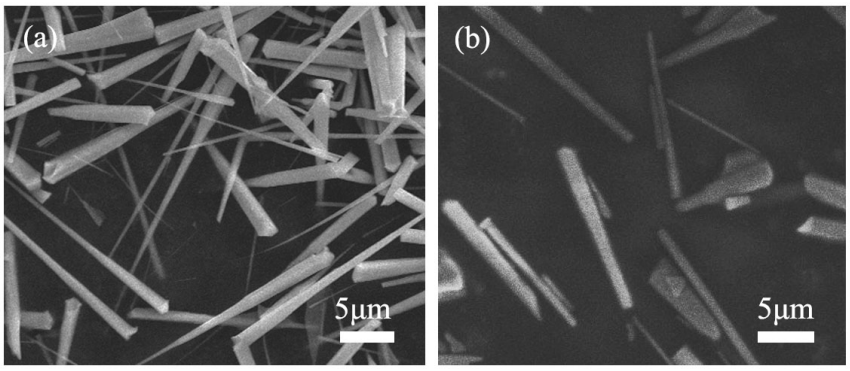


Fig.S4 The SEM images of the ZnO_n powder (a) before and (b) after resintering and dielectric measurement.