

Supplementary information

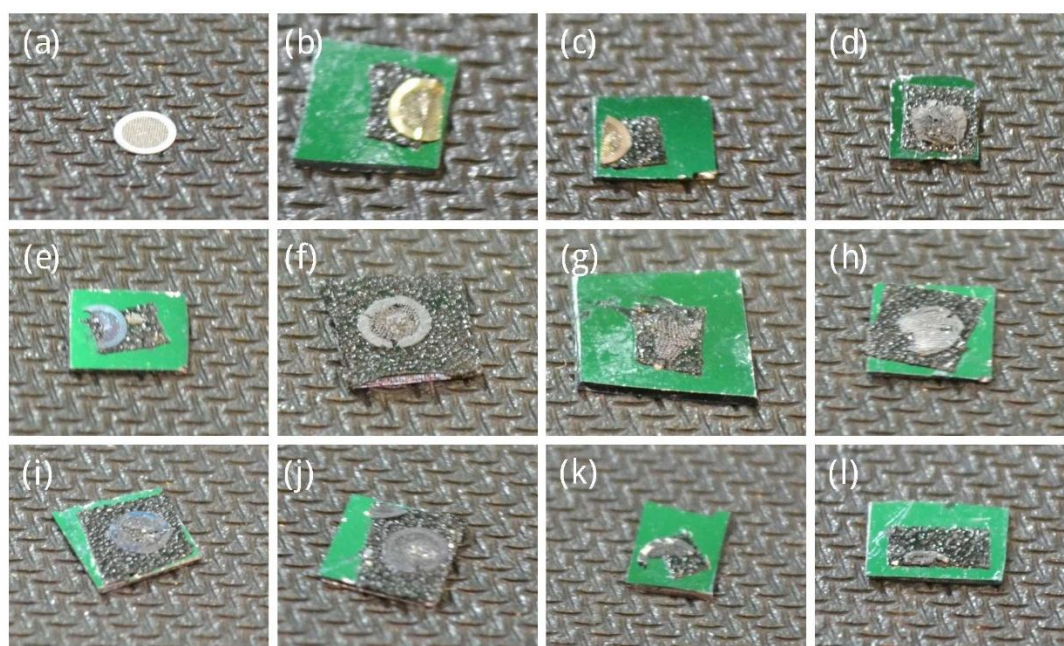
# Growth Mechanism Studies of Multi-Dimensional ZnO Nanowires: Experimental Observations and Theoretical Simulations

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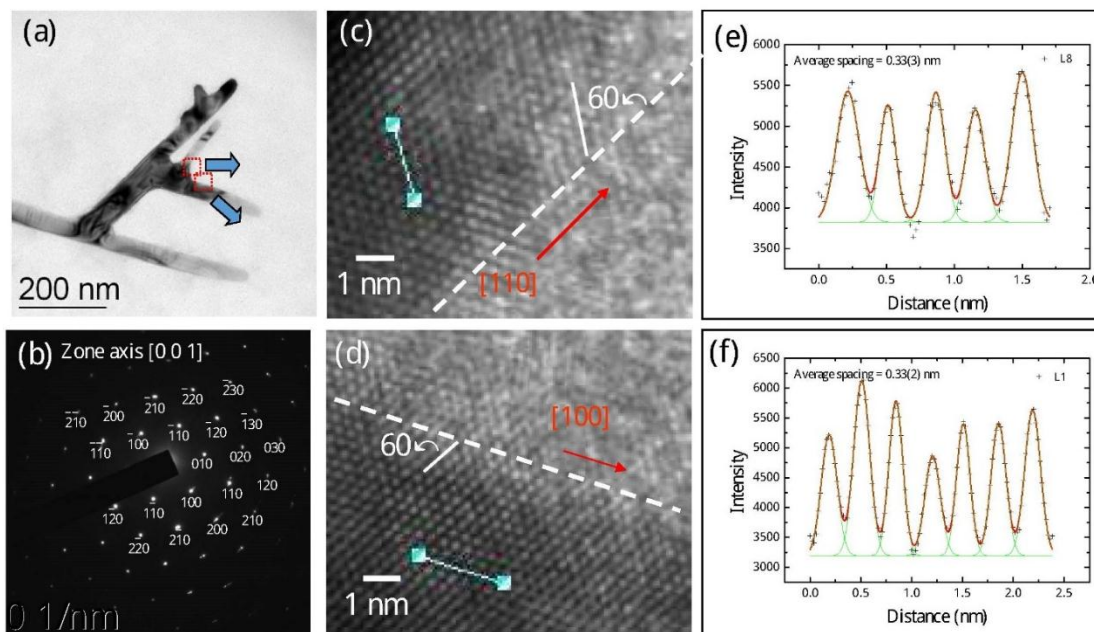
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**Table S1.** A list of space groups and lattice parameters of Zn, Ti and ZnO.

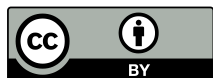
		Hexagonal Structure		
	Space group	a(nm)	c(nm)	Angles
Zn	P6 <sub>3</sub> /mmc	0.267	0.494	$\alpha=\beta=90^\circ, \gamma=120^\circ$
Ti	P6 <sub>3</sub> /mmc	0.295	0.469	$\alpha=\beta=90^\circ, \gamma=120^\circ$
ZnO	P6 <sub>3</sub> mc	0.324	0.520	$\alpha=\beta=90^\circ, \gamma=120^\circ$



**Figure S1.** Optical images for various annealing temperature of samples (a) an unheated Ti grid and a series of samples synthesized at (b) 300 °C; (c) 350 °C; (d) 400 °C; (e) 450 °C; (f) 500 °C; (g) 550 °C; (h) 600 °C; (i) 650 °C; (j) 700 °C; (k) 750 °C; and (l) 800 °C, respectively.



**Figure S2.** (a) TEM image; (b) corresponding selected-area electron pattern; (c–d) high-resolution images of selected regions (marked in (a)) of ZnO nanowires for T500; (e) and (f) show the height-position intensity along the lines taken from HR-TEM marked in (c) and (d), respectively.



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