

Supporting Information

## Nanosheet arrays of TiO<sub>2</sub> synthesized by one step conversion of ZnO nanosheets: Boosting of electron transport rate and application in dye solar cells

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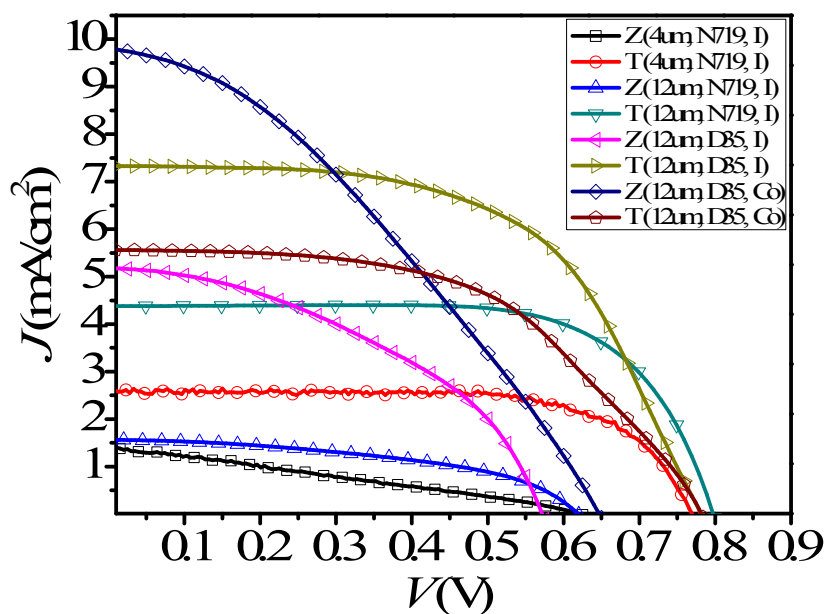
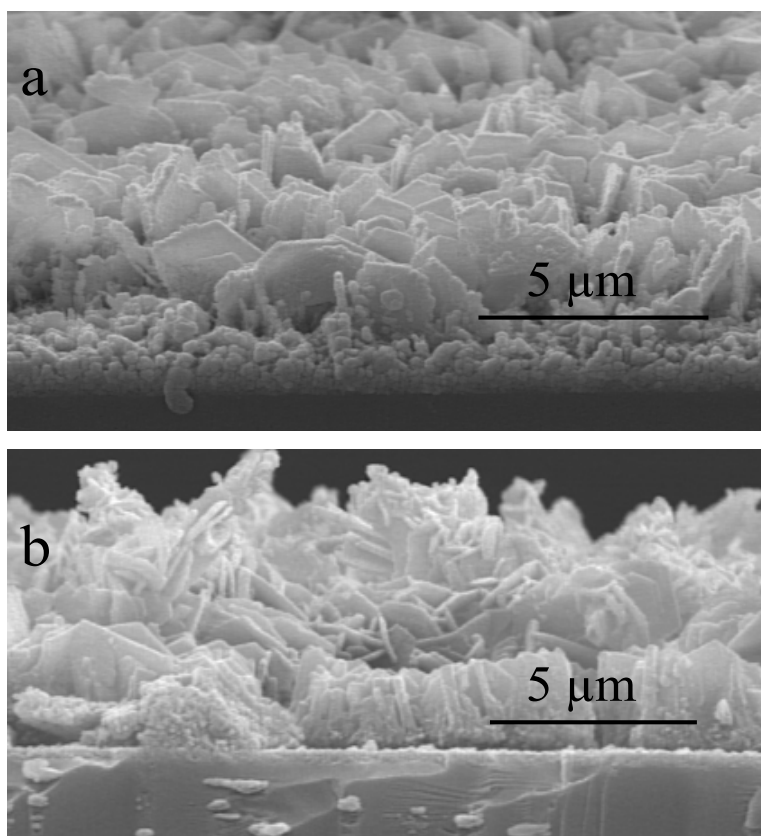


Figure S1. J-V curves of ZnO and TiO<sub>2</sub> nanosheet based cells.

**Table S1.** Photovoltaic performance of the DSSCs based on ZnO and TiO<sub>2</sub> nanosheet arrays.

<i>Sample</i>	<i>Dye Sensitization</i>	<i>Electrolyte</i>	<i>Thickness (<math>\mu\text{m}</math>)</i>	$V_{oc}$	$J_{sc}$	<i>FF</i>	<i>Efficiency</i>
ZnO	N719	I <sup>-</sup> /I <sub>3</sub> <sup>-</sup>	4	0.62	1.40	28	0.24
ZnO	N719	I <sup>-</sup> /I <sub>3</sub> <sup>-</sup>	12	0.62	1.56	48	0.46
ZnO	D35	I <sup>-</sup> /I <sub>3</sub> <sup>-</sup>	12	0.58	5.18	43	1.28
ZnO	D35	Co <sup>2+</sup> /Co <sup>3+</sup>	12	0.65	9.81	34	2.19
TiO <sub>2</sub>	N719	I <sup>-</sup> /I <sub>3</sub> <sup>-</sup>	4	0.77	2.60	70	1.38
TiO <sub>2</sub>	N719	I <sup>-</sup> /I <sub>3</sub> <sup>-</sup>	12	0.79	4.37	70	2.4
TiO <sub>2</sub>	D35	I <sup>-</sup> /I <sub>3</sub> <sup>-</sup>	12	0.78	7.33	58	3.31
TiO <sub>2</sub>	D35	Co <sup>2+</sup> /Co <sup>3+</sup>	12	0.78	5.56	53	2.32



**Figure S2.** SEM cross sectional images of initial ZnO nanosheets array of FTO substrate (a) and converted TiO<sub>2</sub> nanosheets (b)