

Supporting Tables

Table S1. The diameter and length of TiO₂ nanorods samples

Sample	Diameter (nm)	Length (μm)
Sample 1	80	1.84
Sample 2	78	1.72
Sample 3	98	1.96
Sample 4	107	1.98
Sample 5	120	2.14
Sample 6	124	2.42
Sample 7	94	1.83
Sample 8	103	1.89
Sample 9	118	2.33
Sample 10	103	2.03

Table 2. Average and standard deviation of diameter and length of TiO₂ nanorod based on table 1.

	Diameter (nm)	Length (μm)
Average	103.0	2.01
Standard deviation	14.9	0.21

To determine the standard deviation of diameter and length of TiO₂ nanorods, ten TiO₂ nanorod samples are prepared. As shown in Table S1, the average of diameter is 103 ± 14.9 nm and average length is 2.01 ± 0.21 μm.

Supporting Figures

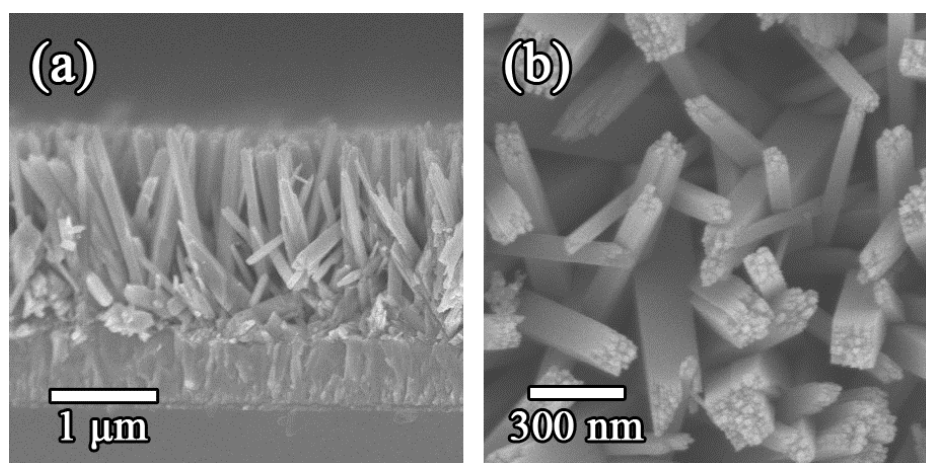


Figure S1. (a) Cross-sectional view and (b) Top-view FESEM images of TiO₂ nanorods used as a stem of nano-branches/nanoparticles hybrid architecture.

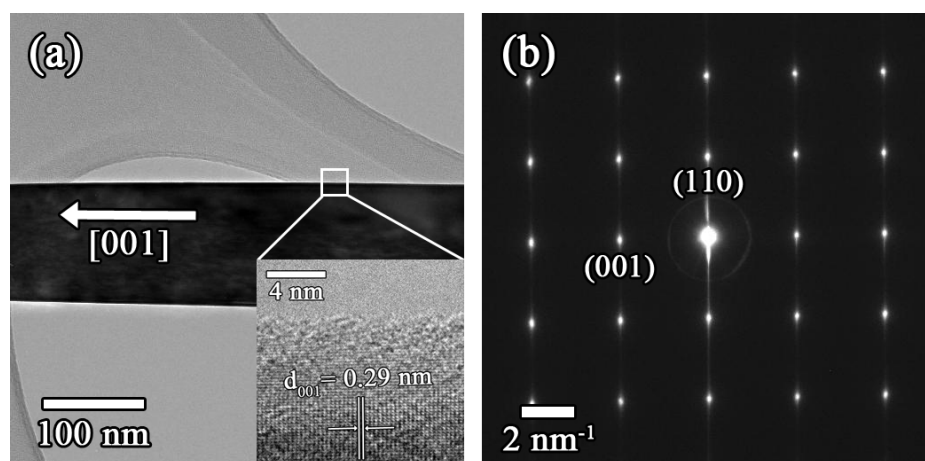


Figure S2. (a) TEM image (inset shows HRTEM image) and (b) Selected area electron diffraction (SAED) pattern of single TiO₂ nanorod.

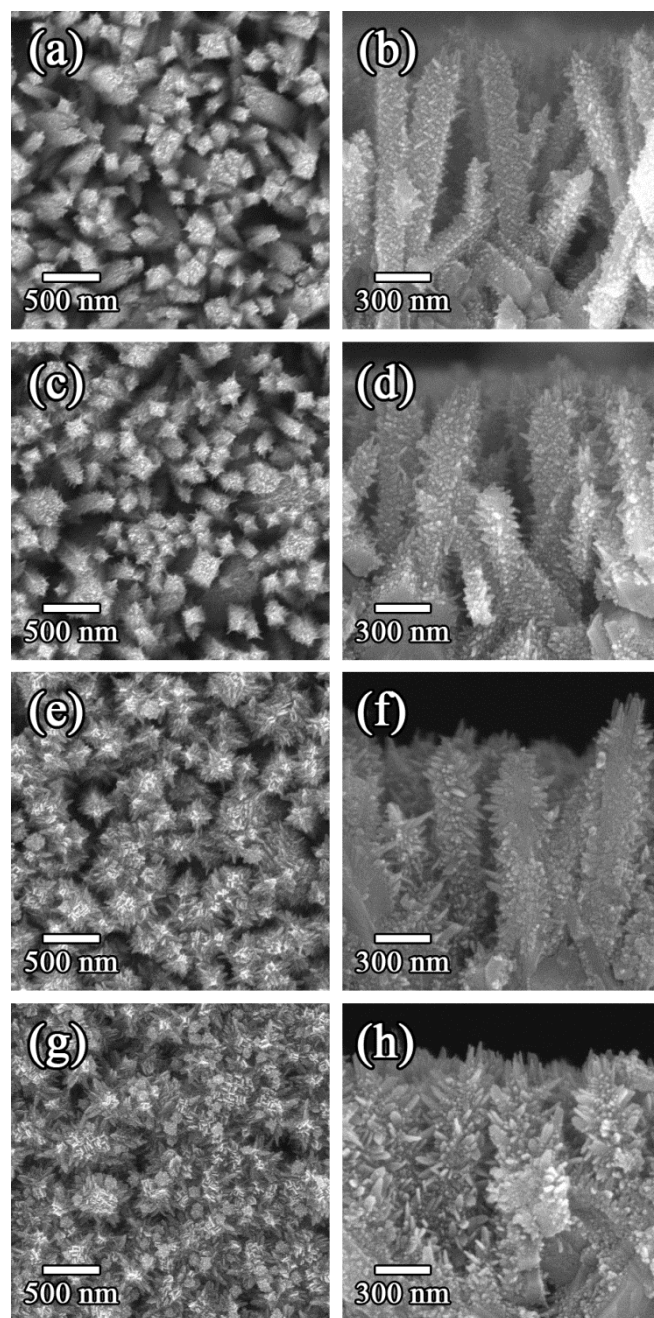


Figure S3. SEM images of TiO_2 NRs with prolonged TiCl_3 treatment time. (a) 30min, (b) 60min, (c) 120min, and (d) 240min.

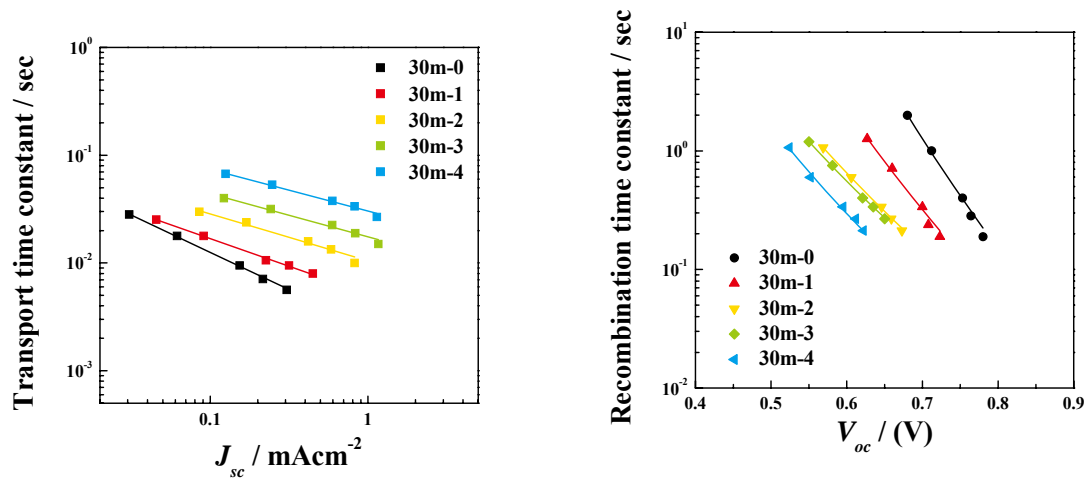


Figure S4. IMPS and IMVS data of TiO₂ nano-branches/nanoparticles hybrid architecture based DSSCs with multiple TiCl₃ treatments.