Electronic Supplementary Material (ESI) for CrystEngComm

Supporting Information

Continually Adjustable Oriented 1D TiO_2 Nanostructure Arrays with Controlled Growth of Morphology and Their Application in Dye-sensitized Solar Cells

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Figure S1

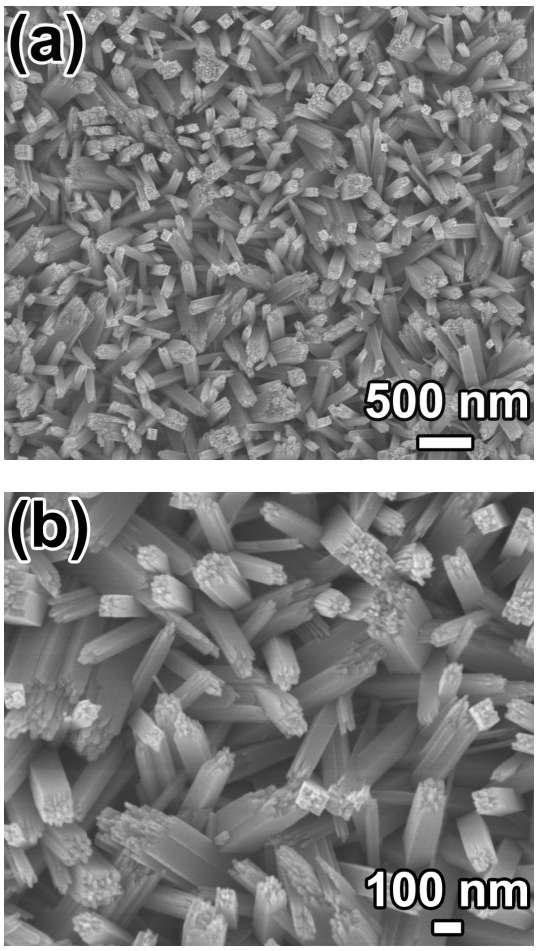

Figure S1: SEM images of TiO_2 nanorod arrays synthesized from aqueous solution ($TTIP_{aq}$).

Figure S2

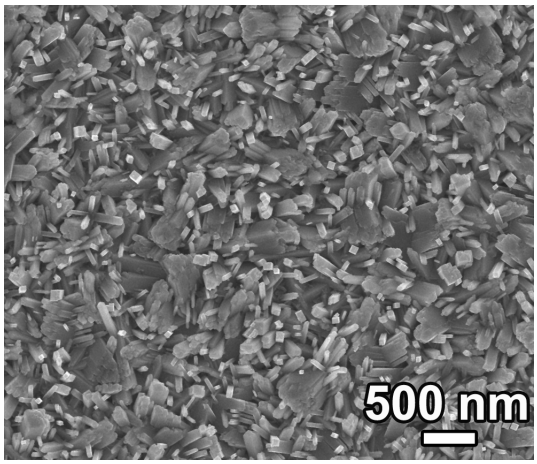

Figure S2: SEM image of oriented TiO_2 nanorod arrays synthesized from the solution with $TTIP_{aq}$:H_2O = 1:1.

Figure S3

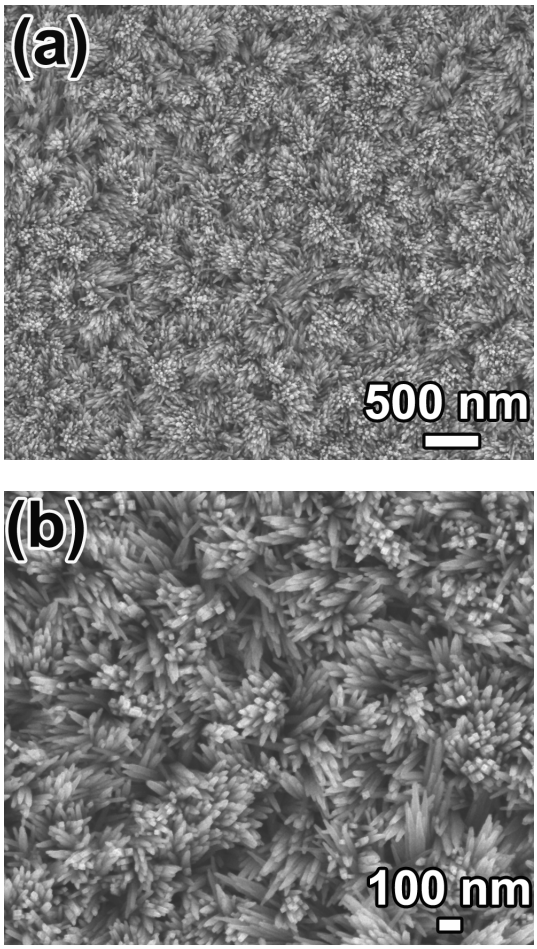

Figure S3: (a) Low and (b) high magnification images of oriented 1D TiO_2 nanorribon arrays synthesized from the solution with $TTIP_{aq}$:EG = 2:1.

Figure S4

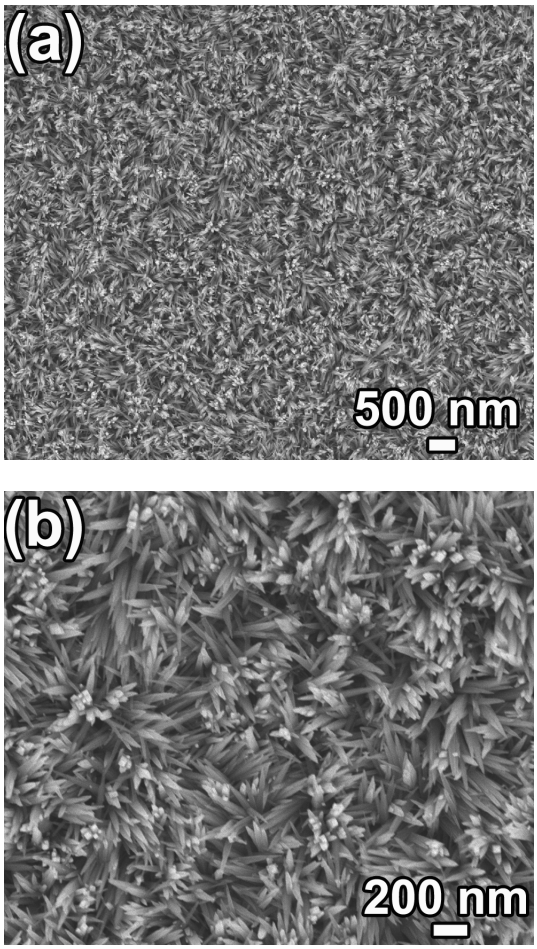

Figure S4: (a) Low and (b) high magnification images of oriented 1D TiO_2 nanorribon arrays synthesized from the solution with $TTIP_{aq}$:EG = 1:1.

Figure S5

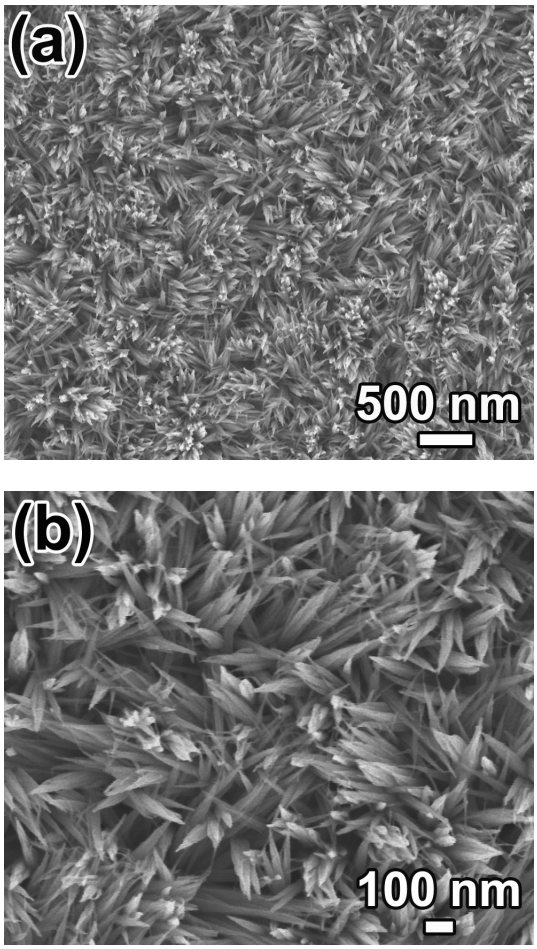

Figure S5: (a) Low and (b) high magnification images of oriented 1D TiO_2 nanorribon arrays synthesized from the solution with $TTIP_{aq}$:EG = 1:2.

Figure S6

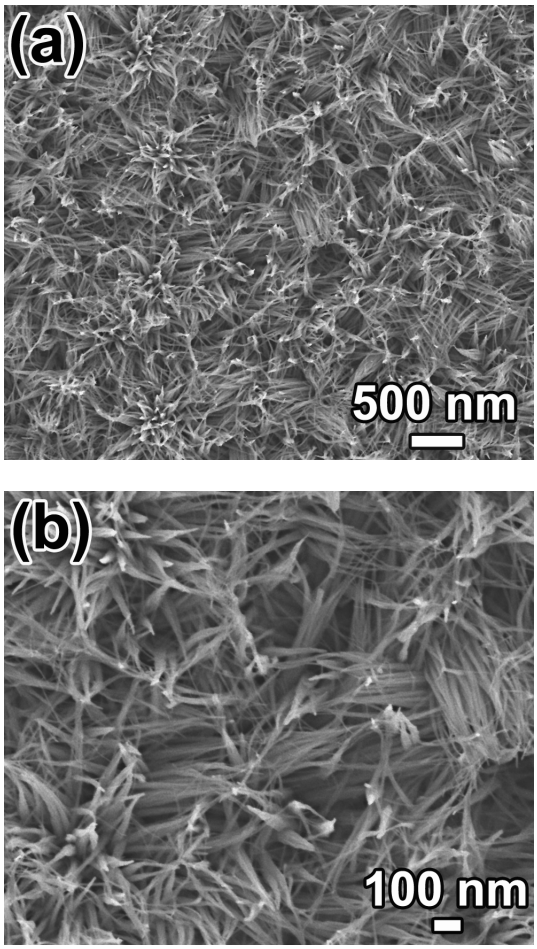

Figure S6: (a) Low and (b) high magnification images of oriented 1D TiO_2 nanowire arrays synthesized from the solution with $TTIP_{aq}$:EG = 1:1 and 5 mmol urea.

Figure S7

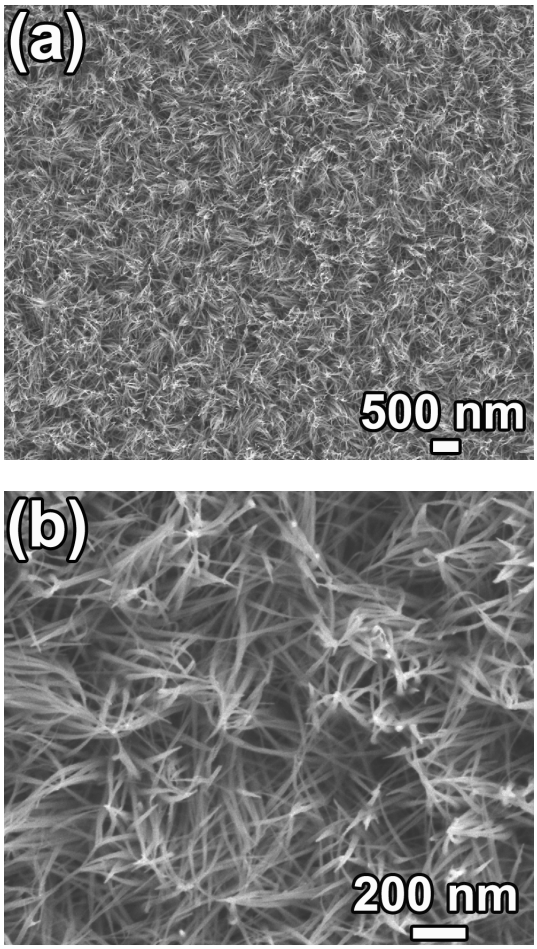

Figure S7: (a) Low and (b) high magnification images of oriented 1D TiO_2 nanowire arrays synthesized from the solution with $TTIP_{aq}$:EG = 1:2 and 5 mmol urea.

Figure S8

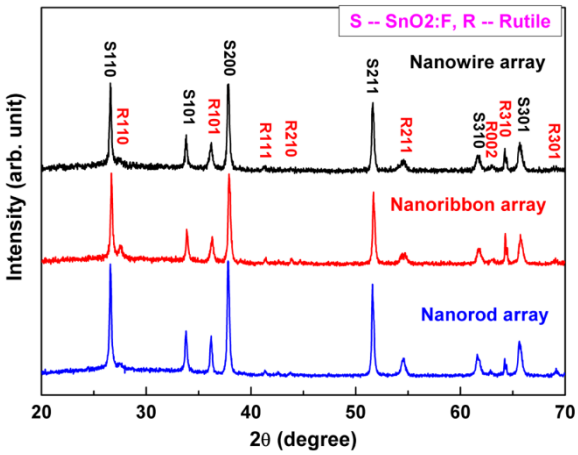

Figure S8: XRD patterns of oriented 1D TiO_2 nanostructure arrays grown on FTO glass substrates.

Figure S9

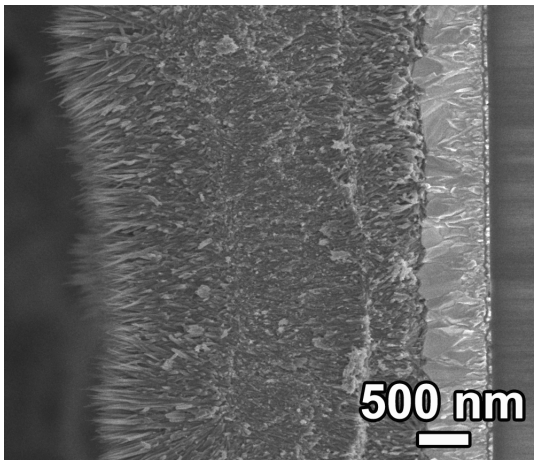

Figure S9: Cross-sectional image of multilayer oriented TiO_2 nanoribbon arrays after repeating synthesis 3 times ($TTIP_{aq}$:EG = 1:1).

Figure S10

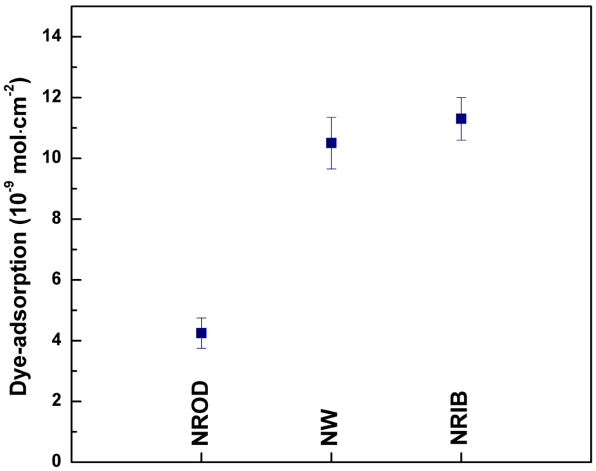

Figure S10: Dye adsorption amount of the photoanodes made from the oriented 1D TiO_2 nanostructure arrays.