Supporting Information

Microwave synthesis of size-controllable SnO_2 nanocrystals for dye-sensitized solar cells

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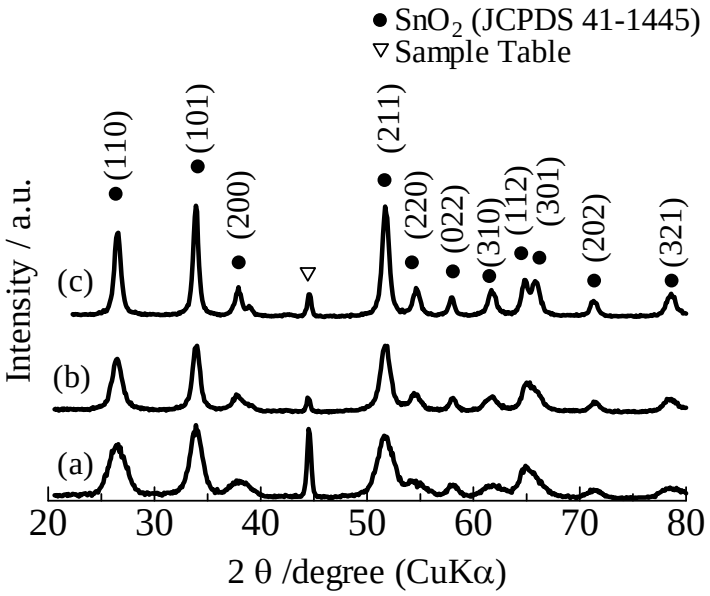

Figure S1 XRD pattern of SnO_2 crystals prepared by a microwave-assisted hydrothermal method at 180^0C for 45 min with different concentration of $SnCl_4$, (a) 0.05 M, (b) 0.10 M, and (c) 0.50 M. The reaction solvent is ethanol-water ratio of 10:1 (v/v).

Table S1 Crystallite sizes of as-synthesized SnO_2 nanoparticles and synthesis conditions in the different concentration of $SnCl_4$ with ethanol-water ratio of 10:1 (v/v).

Sample	*Concentration of $SnCl_4$/ M*	**Crystallite Size/ nm**
a	0.05	12
b	0.10	19
c	0.50	27

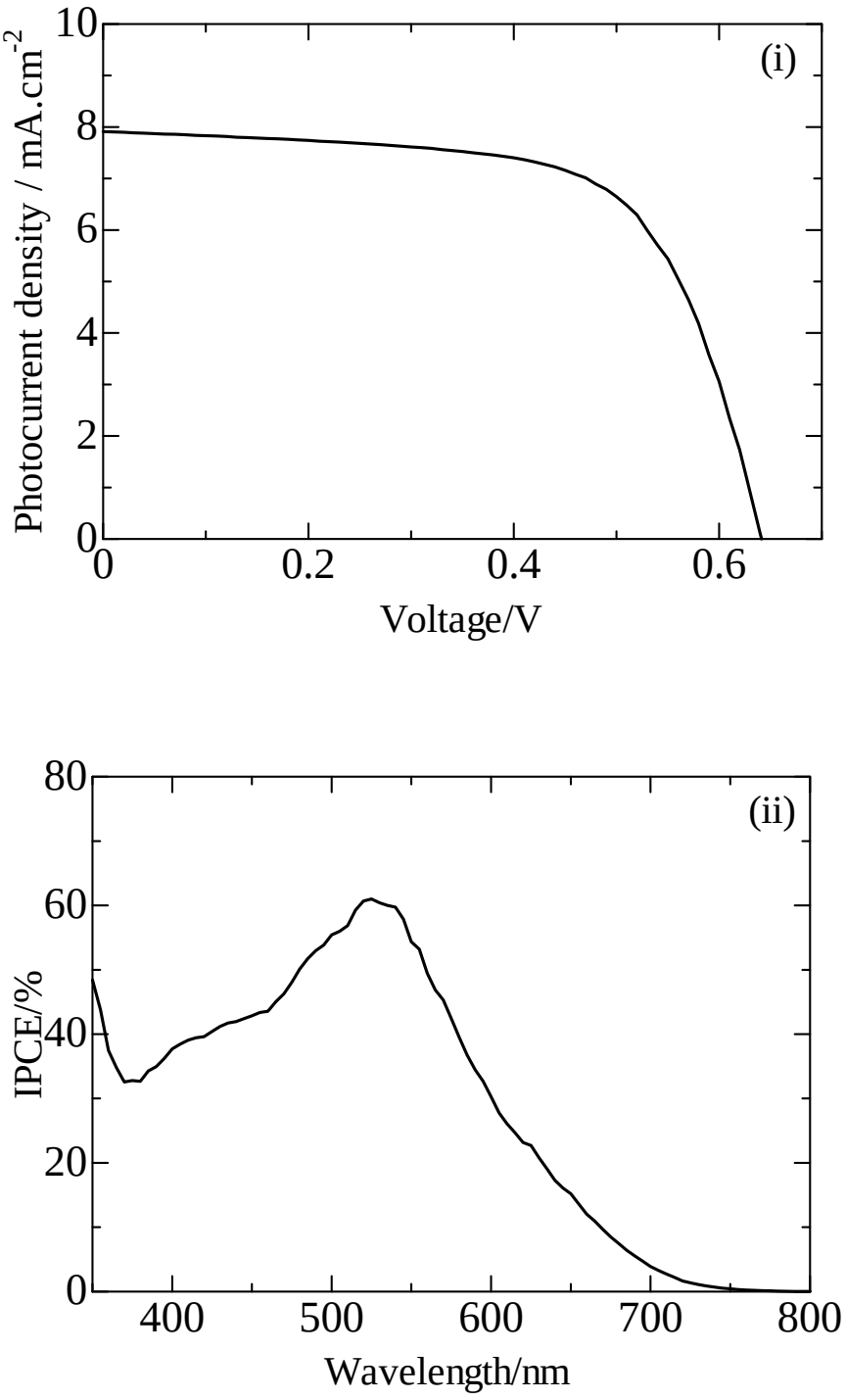

Figure S2 Current-voltage characteristics (i) and IPCE spectrum (ii) of dye-sensitized TiO_2 solar cells with N719 dyes. The dye loading time was 18 h at room temperature.

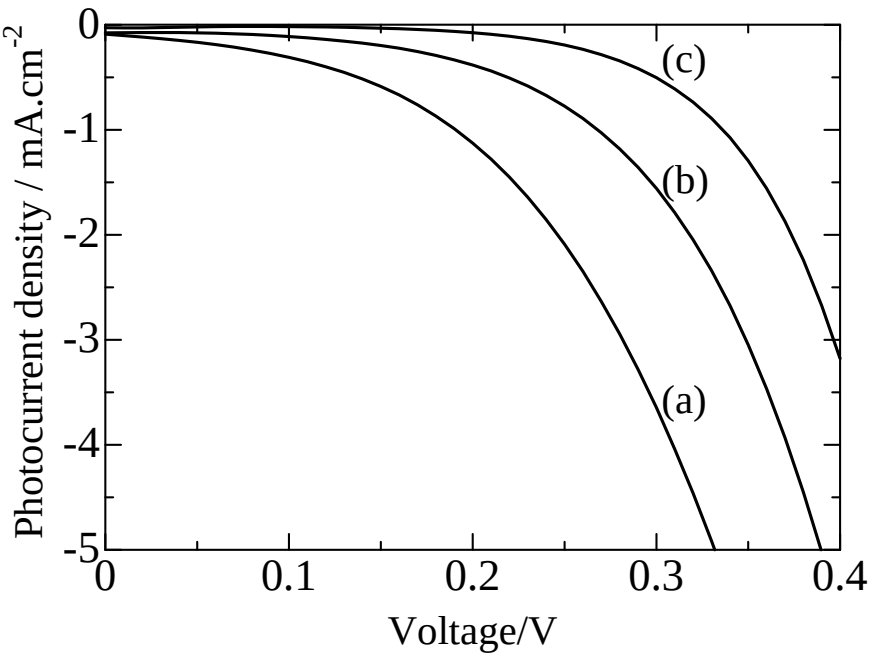

Figure S3 Current-voltage curves of DSSCs based on SnO_2 photoelectrode films under dark conditions. DSSCs of SnO_2 nanocrystals with (a) 11 nm, (b) 18 nm, and (c) 26 nm in size are presented.