Electronic Supplementary Information

Co-grafting of Surfactants: A Facile and Effective Method for the Performance Enhancement of Plastic Crystal Based Solid-State Dye-Sensitized Solar Cells

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Table S1 Photovoltaic parameters for the DSSCs employing N719 alone, AOT/N719, CDCA/N719 and DTAB/N719 under simulated AM 1.5 solar spectrum illumination at 100 mW cm^{-2} after being heated at 60 ^{o}C for 10 min (three batches of cells).

Cell	Treatment	J_{sc} [mA cm^{-2}]	V_{oc} [V]	*FF*	*PCE* [%]
N719	initial	9.96	0.642	0.715	4.57
	heated at 60 ^{o}C	10.50	0.646	0.727	4.93
	initial	9.90	0.642	0.723	4.59
	heated at 60 ^{o}C	10.50	0.648	0.732	4.98
	initial	9.80	0.640	0.708	4.44
	heated at 60 ^{o}C	10.40	0.642	0.722	4.82
AOT/N719	initial	10.21	0.677	0.713	4.92
	heated at 60 ^{o}C	12.50	0.718	0.751	6.75
	initial	10.10	0.683	0.721	4.97
	heated at 60 ^{o}C	12.40	0.719	0.767	6.83
	initial	10.30	0.671	0.703	4.86
	heated at 60 ^{o}C	12.70	0.710	0.742	6.69
CDCA/N719	initial	10.50	0.659	0.706	4.88
	heated at 60 ^{o}C	11.60	0.706	0.733	6.01
	initial	10.50	0.653	0.699	4.79
	heated at 60 ^{o}C	11.50	0.701	0.733	5.91
	initial	10.60	0.667	0.711	5.03
	heated at 60 ^{o}C	11.70	0.712	0.742	6.18
DTAB/N719	initial	9.82	0.653	0.712	4.58
	heated at 60 ^{o}C	10.41	0.655	0.709	4.83
	initial	9.92	0.656	0.703	4.57
	heated at 60 ^{o}C	10.6	0.656	0.704	4.89
	initial	9.79	0.659	0.722	4.66
	heated at 60 ^{o}C	10.32	0.660	0.707	4.81

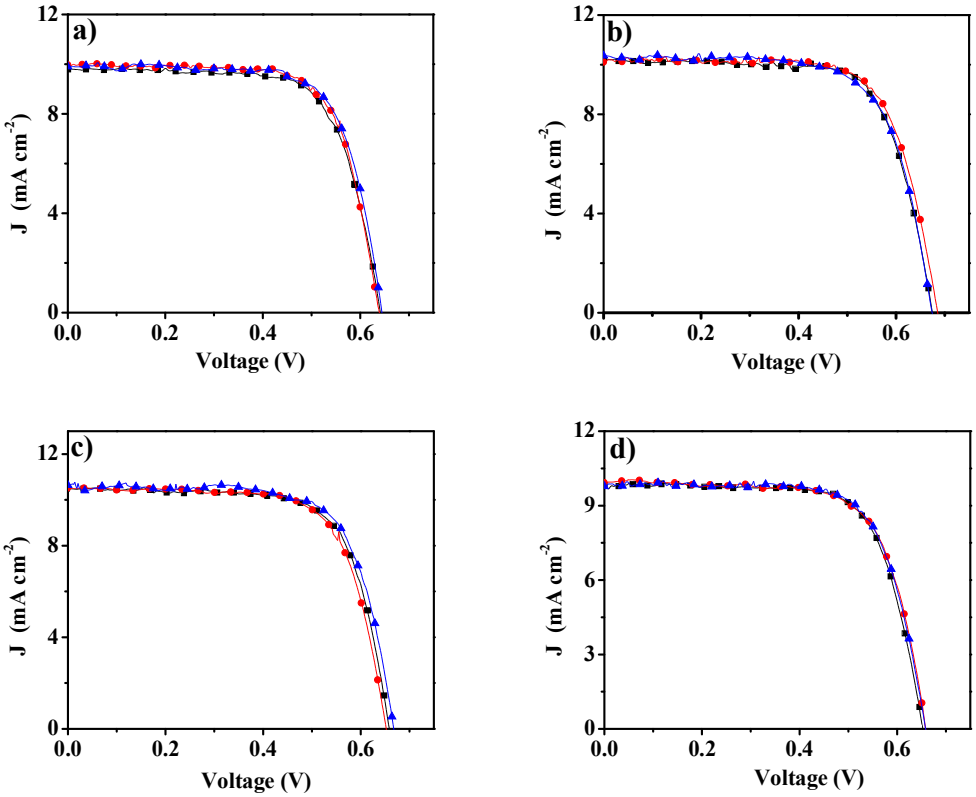

Fig S1. *J*−*V* characteristics of the fresh cells employing TiO_2 photoanodes sensitized with a) N719 alone; b) AOT/N719; c) CDCA/N719; d) DTAB/N719 under the simulated AM 1.5 solar spectrum irradiation at 100 mW cm^{-2} (three batches of cells).

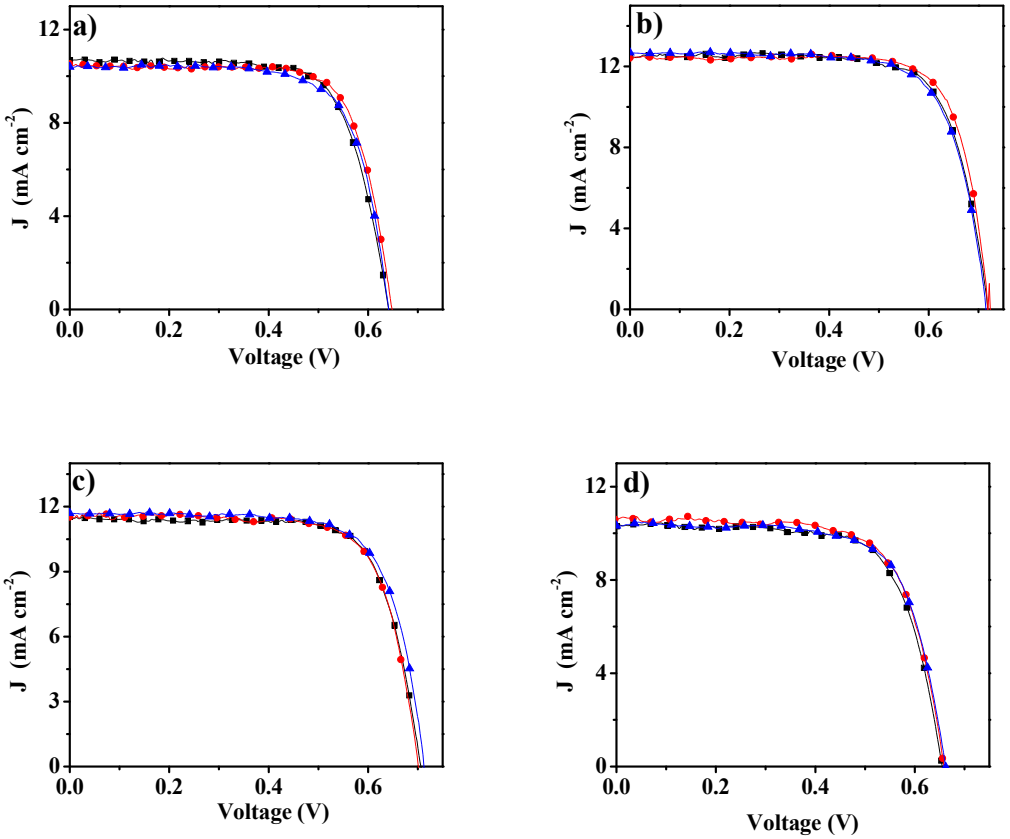

Fig S2. *J*−*V* characteristics of the heat-treated cells (at 60 °C for 10 min) employing TiO_2 photoanodes sensitized with a) N719 alone; b) AOT/N719; c) CDCA/N719; d) DTAB/N719 under the simulated AM 1.5 solar spectrum irradiation at 100 mW cm^{-2} (three batches of cells).