Supporting Information

Achieving environment-friendly production of $CsPbBr_3$ films for efficient solar cells via precursor engineering

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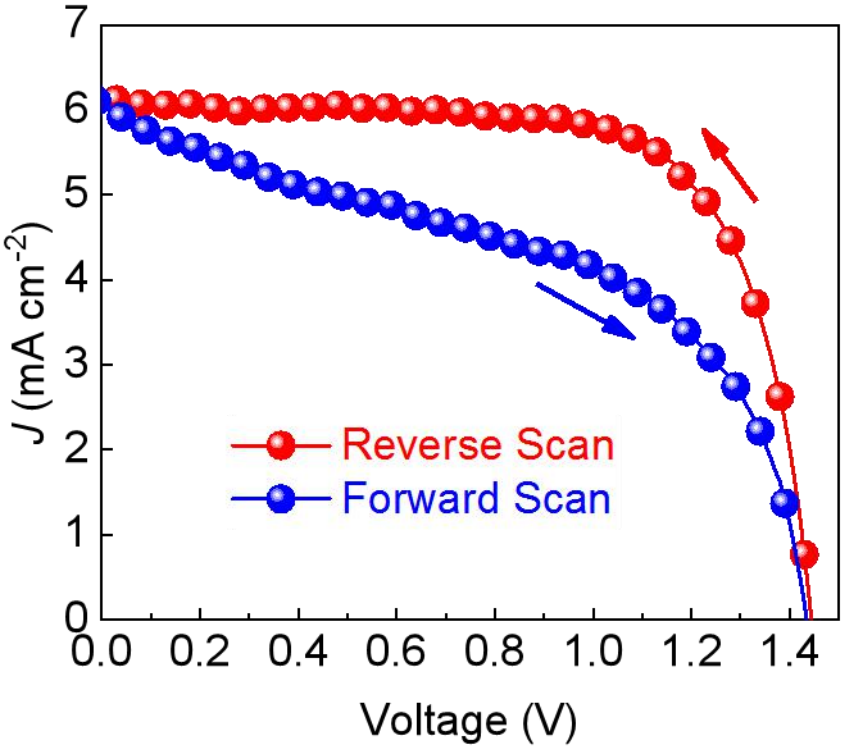

Figure S1. Hysteresis behavior of the $CsPbBr_3$ solar cells fabricated from the $Pb(NO_3)_2/H_2O$ solution.

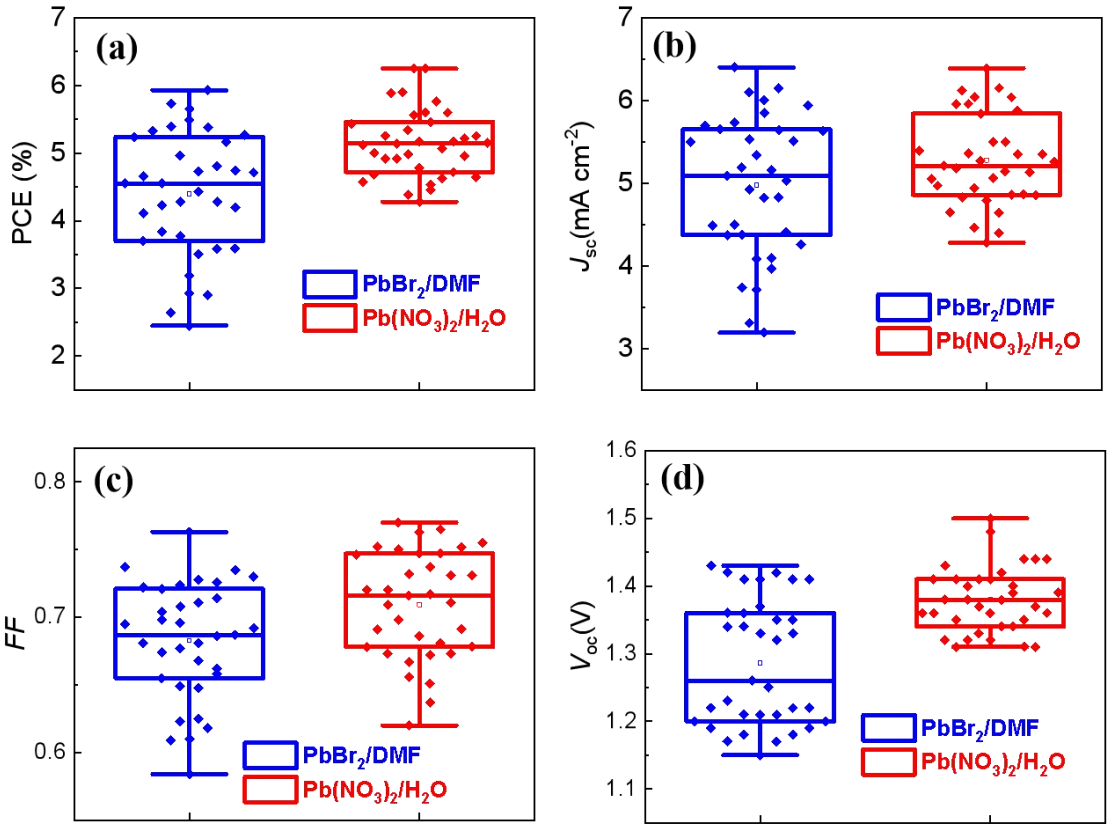

Figure S2. Box chart of photovoltaic parameters of PSCs prepared from different solutions. (a) PCE; (b) J_{sc}; (c) FF; (d) V_{oc}.

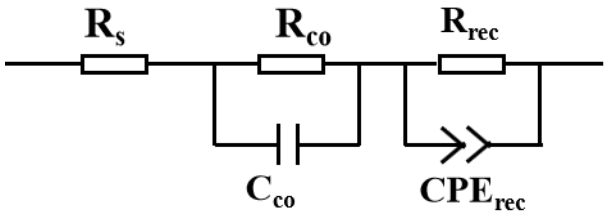

Figure S3 The equivalent circuit used to analyse the impedance spectroscopy spectra.

Table S1 The fitting results of impedance spectroscopy spectra.

Samples	R_s (Ω)	R_{co} (Ω)	C_{co} (uF)	R_{rec} (Ω)	CPE_{rec} (uF)
$PbBr_2$/DMF	61.74	1141	0.685	4396	3.05
$Pb(NO_3)_2/H_2O$	44.95	2033	0.681	6635	5.59