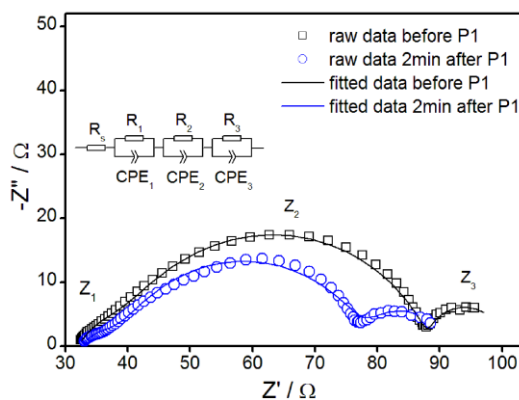


# Recovering degraded quasi-solid-state dye-sensitized solar cells by applying electrical pulses

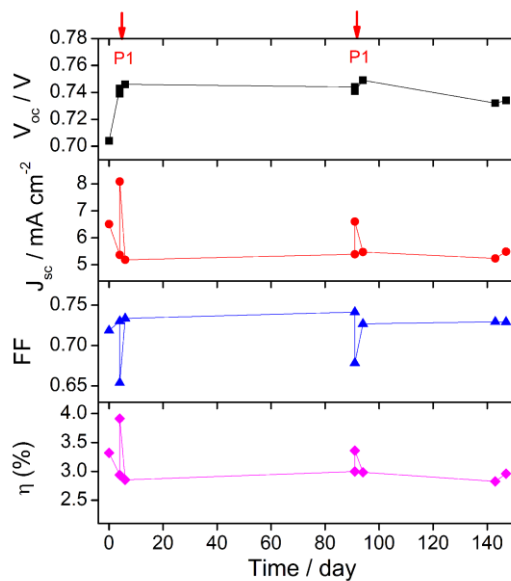
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**Fig. S1** Simulated Nyquist plots of C1 before and after P1. Inset is the equivalent circuit model for C1.



**Fig. S2** Photovoltaic parameters of C1 during 147 days, during which P1 pulses were applied twice: on the 4th day and the 91<sup>st</sup> day, respectively.

**Table S1** Results of each impedance from simulated Nyquist plots of C1 before and after P1.

<i>treatment</i>	$R_0 / \Omega$	$R_1 / \Omega$	$R_2 / \Omega$	$R_3 / \Omega$
before P1	32.18	7.231	49.14	11.60
2min after P1	32.67	6.219	39.66	12.16

**Table S2** *J-V* parameters of C2 under AM 1.5G illumination in different degradation and pulse-treatment conditions.

<i>day(s) after fabrication</i>	<i>treatment</i>	$V_{oc} / V$	$J_{sc} / mA\ cm^{-2}$	<i>FF</i>	$\eta$ (%)
0	none	0.640	8.47	0.607	3.29
14	before P1~P3	0.671	5.90	0.672	2.66
14	10min after P1~P3	0.589	6.55	0.508	1.96
48	none	0.512	0.523	0.586	0.157