

## **Supporting Information**

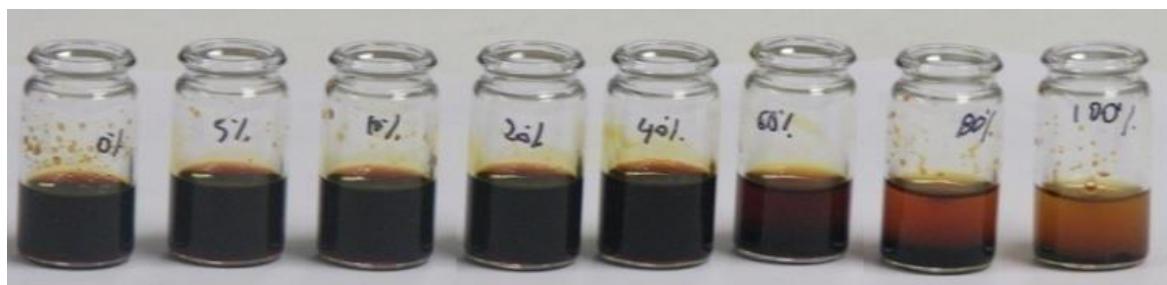
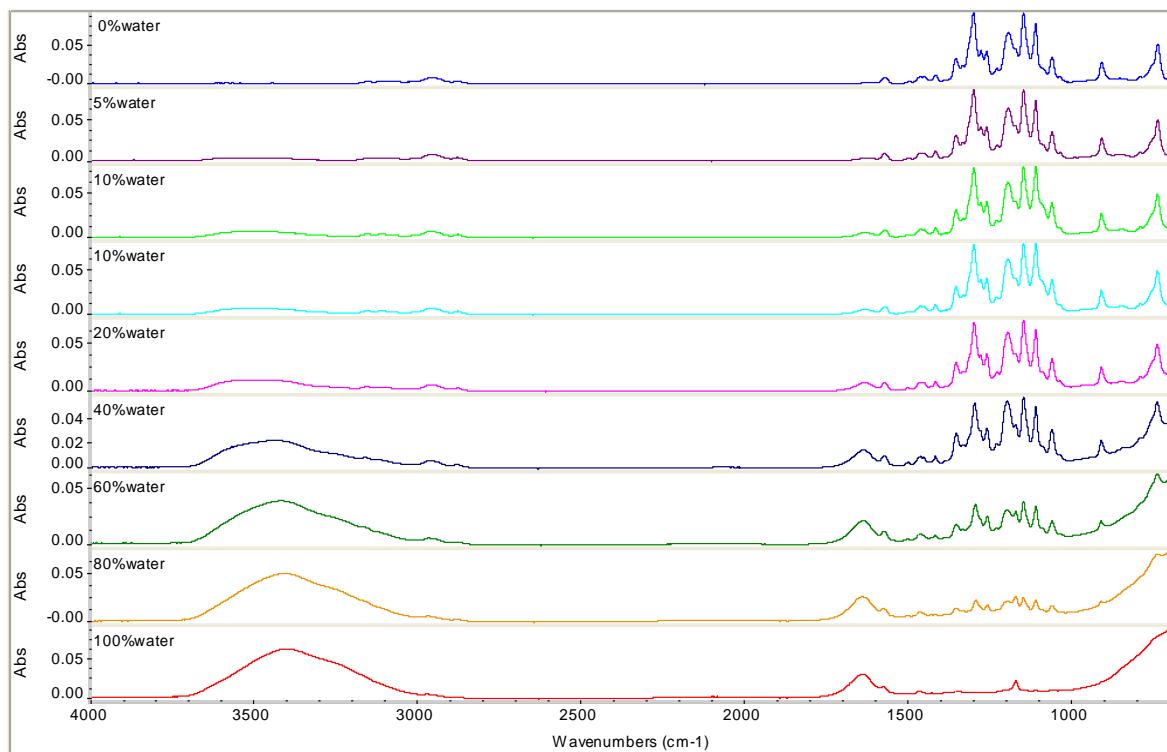
### **High-efficiency glass and printable flexible dye sensitized solar cells with Water-based electrolytes.**

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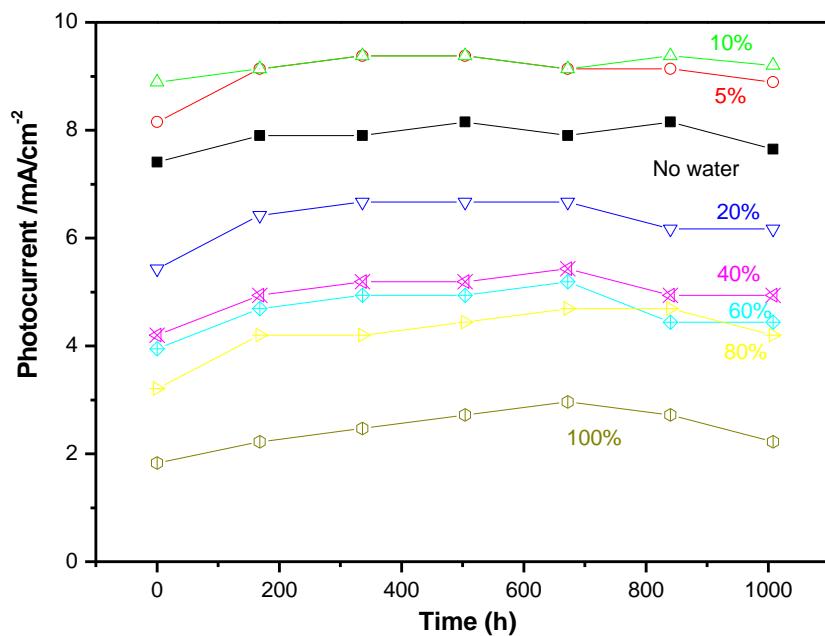
**S1.** FT-IR obtained with the different water-based electrolyte contents.



**S2.** Viscosity, pH and charge transfer resistance of a water-based electrolyte for flexible DSSCs. <sup>a</sup> Low viscosity not recorded.

Water Content	Sulfolane Content	R <sub>ct</sub> [Ohm]	pH	Viscosity [mPas]
[%]	[%]			
0	100	72.2	7.60	22.2
5	95	68.1	7.33	17.5
10	90	65.6	7.08	12.6
20	80	53.4	6.93	0.95
40	60	37.0	6.70	<sup>a</sup>
60	40	11.4	6.65	<sup>a</sup>
80	20	4.53	6.62	<sup>a</sup>
100	0	2.83	6.60	<sup>a</sup>

**S3.** Evolution of the photocurrent under long term illumination at AM 1.5 condition (100 mW/cm<sup>2</sup>) of water-based electrolyte flexible DSSCs measured in the BMIM-I 1.4M, PMIM-TFSI 0.7M, BBI 0.4M, I<sub>2</sub> 01M, water-% and sulfolane-%.



**S4.** Analysis of the printable flexible cells after 1000h life-time studies under soaking at 1sun, 60°C.

