

## Supplementary information

### A counter electrode based on hollow spherical particles of polyaniline for a dye-sensitized solar cell

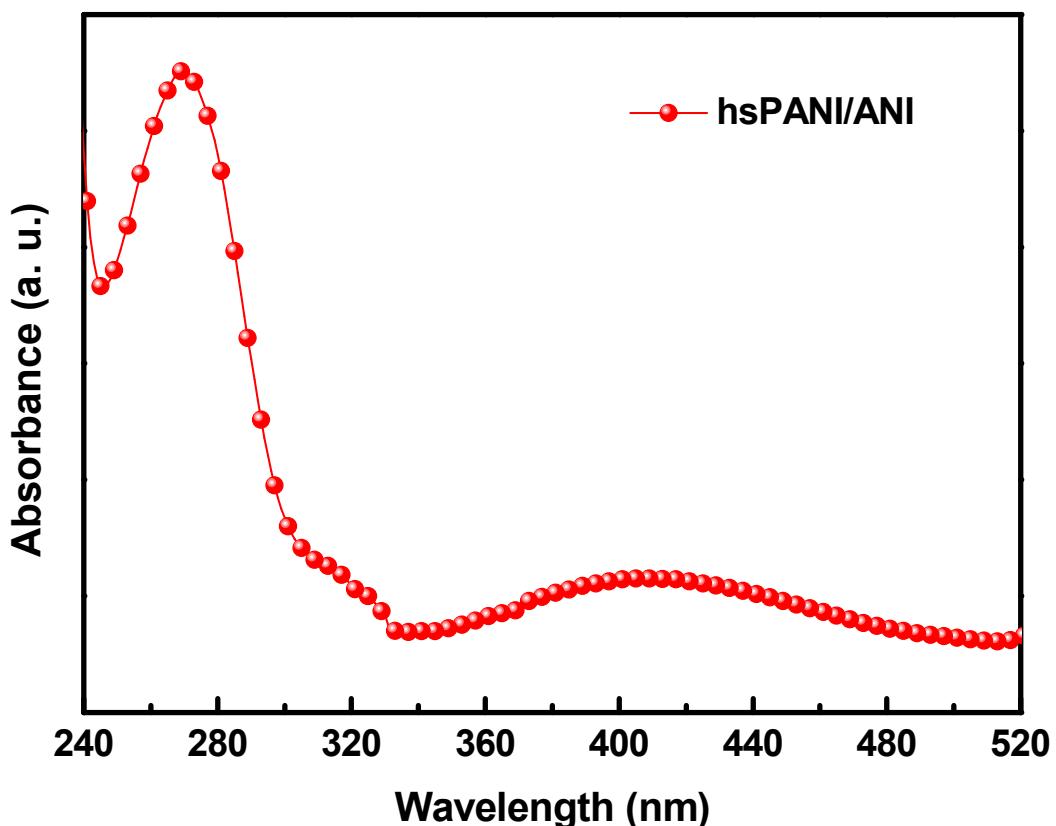
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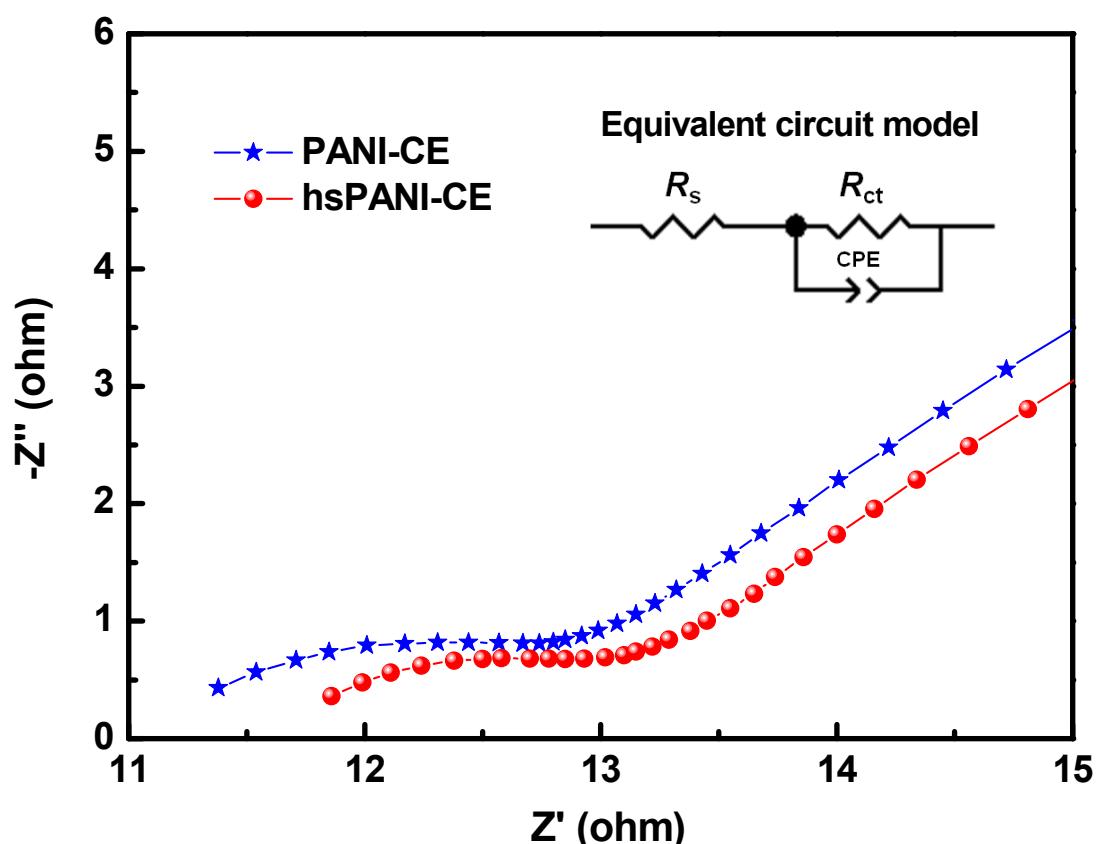
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**Fig. S1** UV/Vis absorption spectrum of hsPANI/ANI particles in water.



**Fig. S2** EIS spectra of the symmetric cells with PANI-CE and hsPANI-CE. The inset shows the corresponding equivalent circuit model.