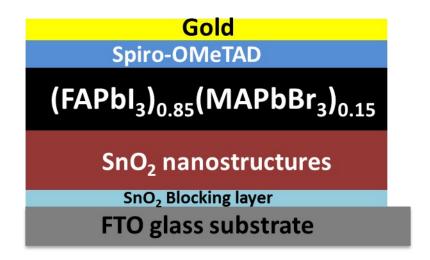
Electronic Supplementary Material (ESI) for Nanoscale Advances. This journal is © The Royal Society of Chemistry 2019

## **Supplementary Information**

for

Novel 3D hierarchically-structured cauliflower-shaped  $SnO_2$  nanospheres as effective photoelectrodes in hybrid photovoltaics



Scheme S1. Schematic illustration of complete device.

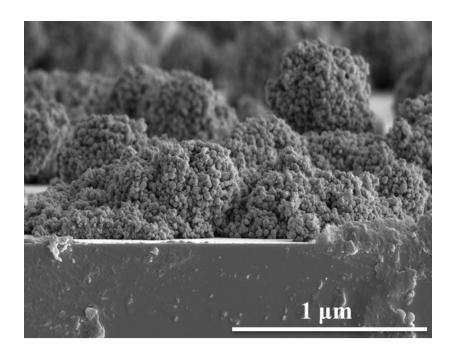


Fig. S1 Cross-sectional SEM image of 3D hierarchical SnO<sub>2</sub> nanostructures.

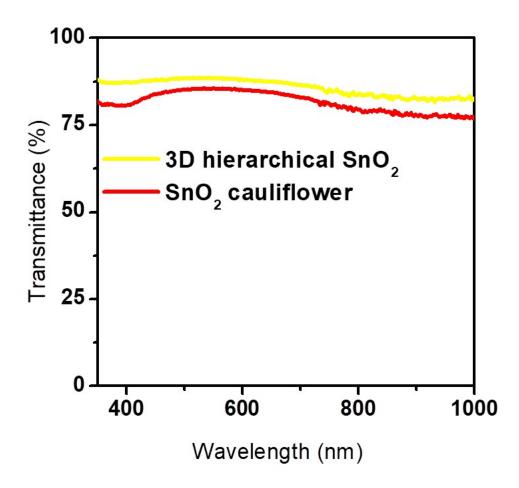


Fig. S2 Optical transmittance spectra of two different  $SnO_2$  nanostructures.

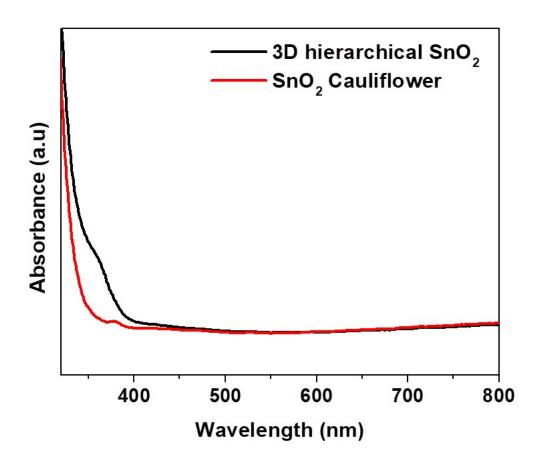


Fig. S3 Absorbance spectra of two different  $SnO_2$  nanostructures.

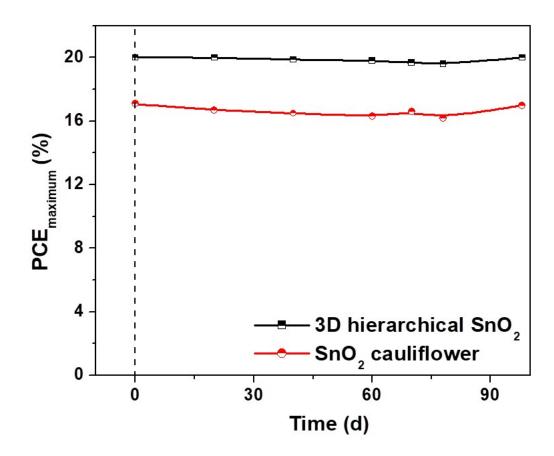


Fig. S4 Long-term stability testing of two different  $SnO_2$  nanostructures.