## SUPPORTING INFORMATION

## High-Quality Hollow Closed-Pore Silica Antireflection Coatings Based on Styrene-Acrylate Emulsion@Organic-Inorganic Silica Precursor

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Figure S1. Monodisperse SA nanospheres.



Figure S2. Monodisperse SA@OISP nanospheres.



Figure S3. Morphology (A) and the cross-sectional (B) SEM images, and AFM measurement (C) image of well-defined CHAR-300 films.



Figure S4. Transmittance spectra with the test time of DHT test.



Figure S5. Schematic diagram of the poly-crystalline silicon solar modules.