Electronic Supplementary Material (ESI) for Soft Matter.

Supplementary Information

Tuning water-responsiveness with *Bombyx mori* silk-silica nanoparticle composites

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Supplementary Figures:

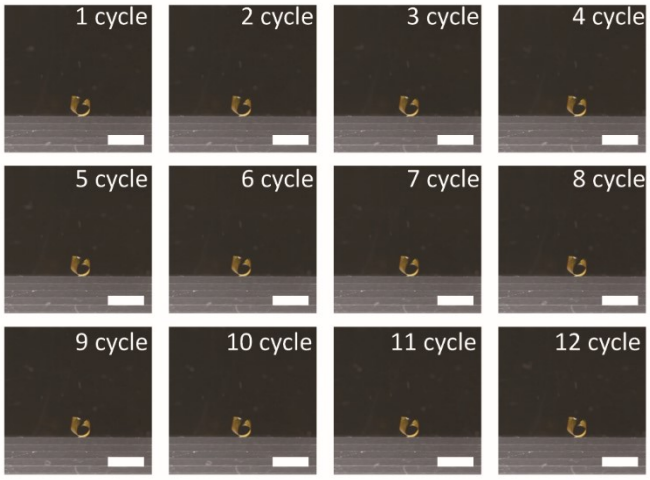

Fig. S1 The film with SFSiNP 17 reversibly bends when subjected to repeated changes in RH (10% -90% RH).

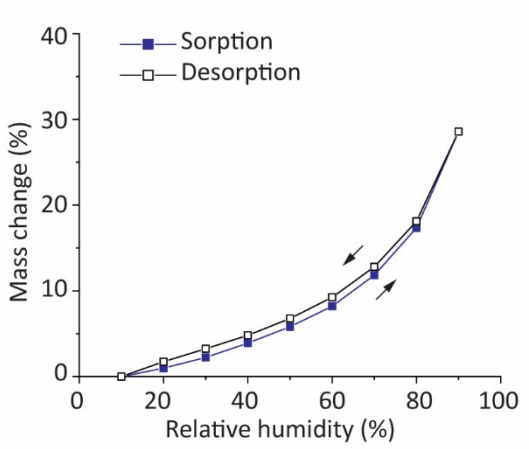

Fig. S2 DVS water sorption isotherm of SFSiNP 17 when RH is cycled between 10% and 90%.

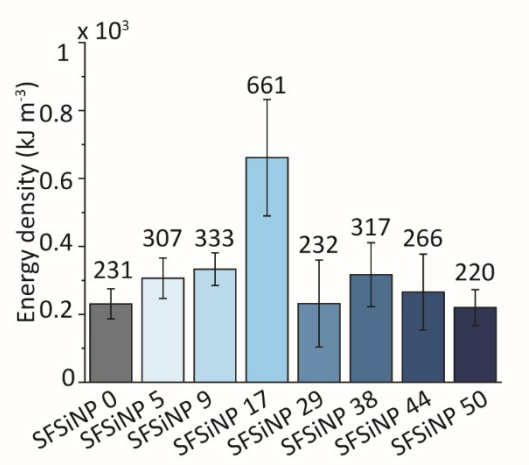

Fig. S3 SFSiNP composites' WR energy densities with different SiNP's concentrations (0-50 vol%).

Legend for Supplementary Movies:

Movie S1. The film with SFSiNP 17 reversibly bends and straightens in response to RH changes between 10% and 90% (Playback speed: 10X).