

Supplementary Information

Toward multitasking solar desalination: Janus and scalable paper evaporator with light trapping, heat confinement, salt resistance, and pollutant degradation

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Contents

Fig. S1 XRD patterns of PDA and PDA@Fe.

Fig. S2 ¹H NMR spectrum of PDMS-OH.

Fig. S3 ¹H NMR spectrum of MBp monomer.

Fig. S4 Photographs of paper samples with tensile load in dry state and wet state.

Fig. S5 Photographs of Janus evaporators prepared from various paper substrates.

Fig. S6 a) Curling, b) piling and c) folding behaviors of J-PDFP evaporator.

Fig. S7 IR images of FP, PFP, PDFP and J-PDFP under a) dry state and b) operating state.

Fig. S8 Self-cleaning property of J-PDFP evaporator.

Fig. S9 Long-term catalytic durability of the prepared J-PDFP evaporator.

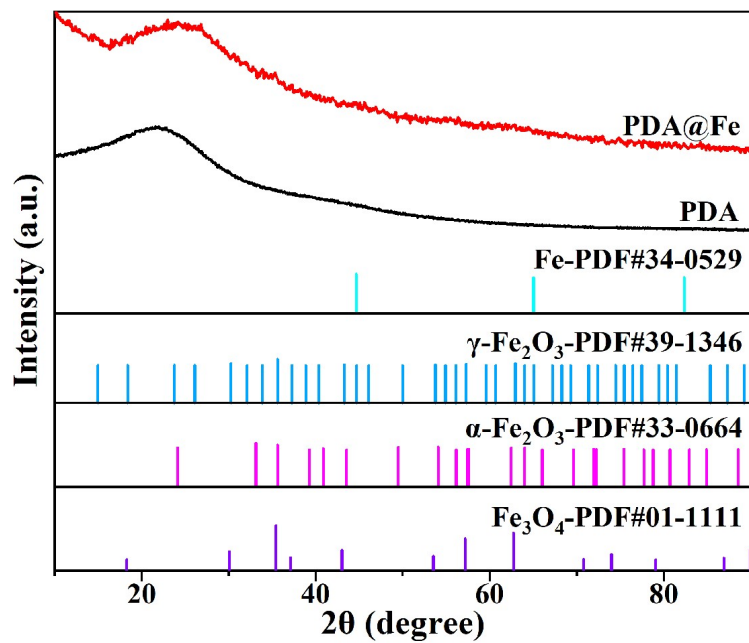


Fig. S1 XRD patterns of PDA and PDA@Fe.

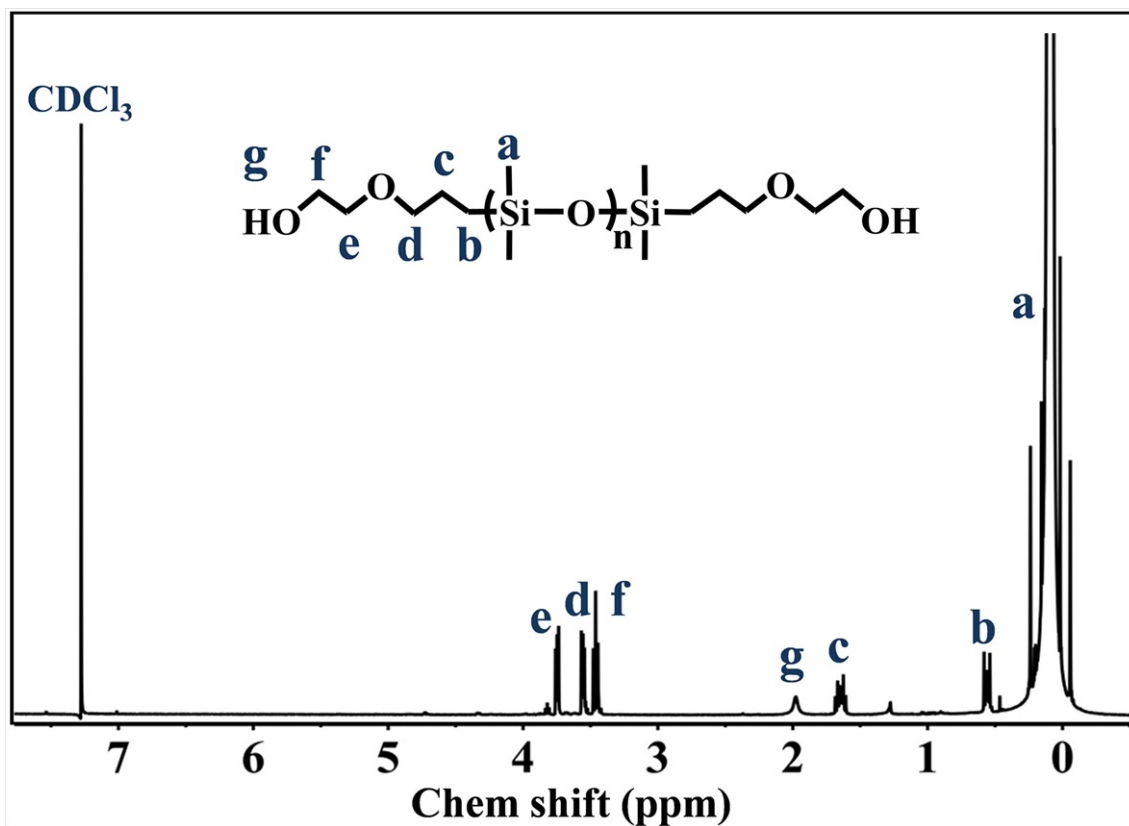


Fig. S2 ^1H NMR spectrum of PDMS-OH.

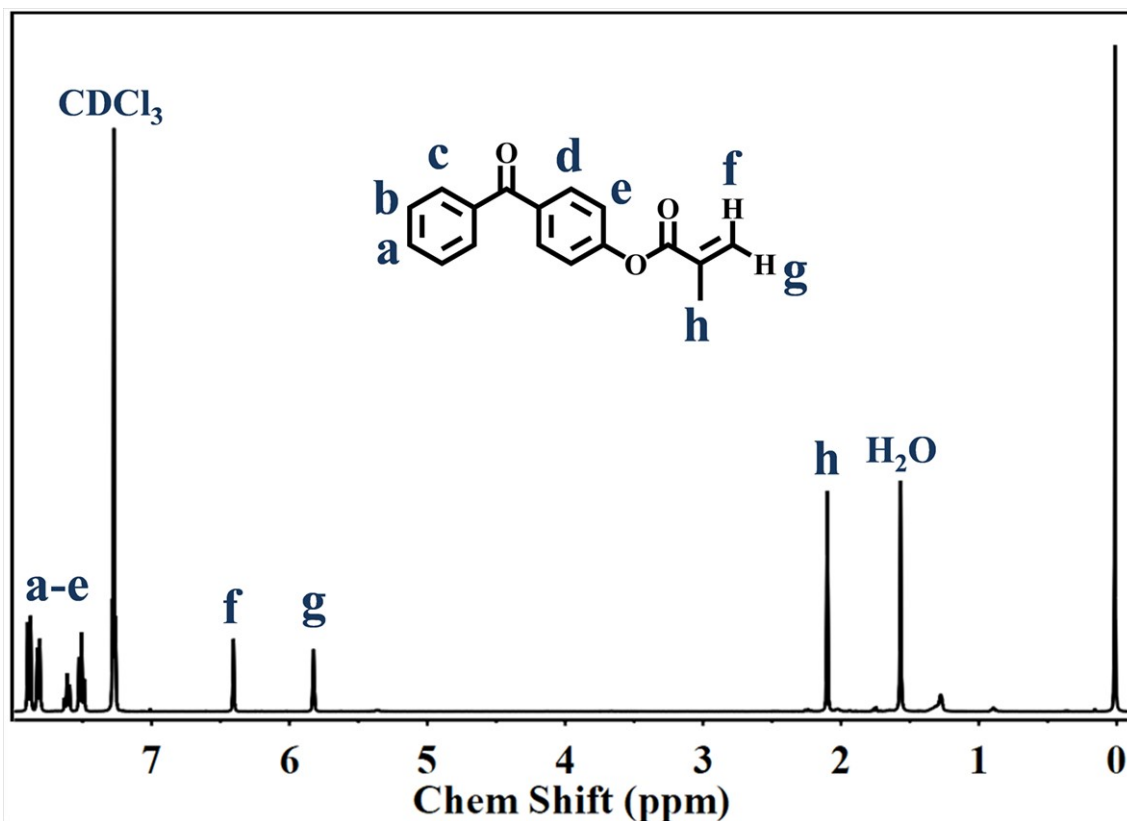


Fig. S3 ¹H NMR spectrum of MBp monomer.

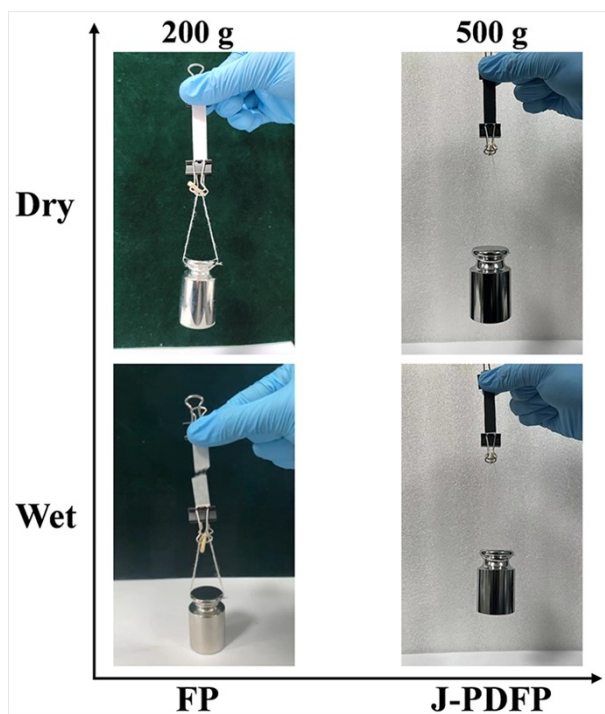


Fig. S4 Photographs of paper samples with tensile load in dry state and wet state.

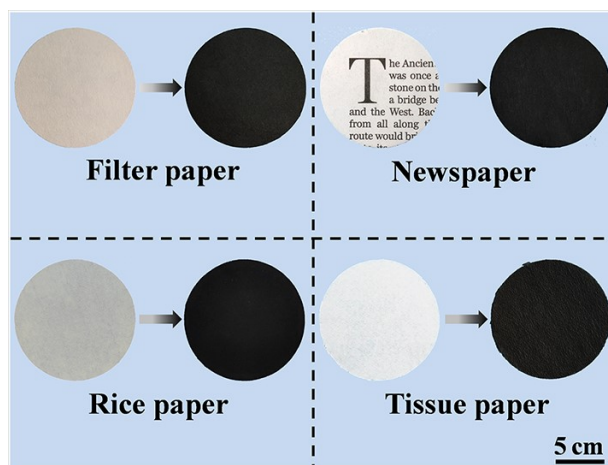


Fig. S5 Photographs of Janus evaporators prepared from various paper substrates.

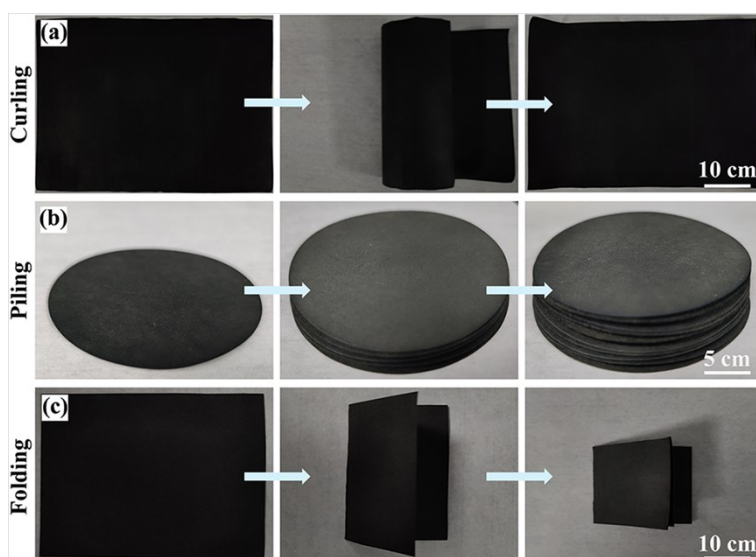


Fig. S6 (a) Curling, (b) piling and (c) folding behaviors of J-PDFP evaporator.

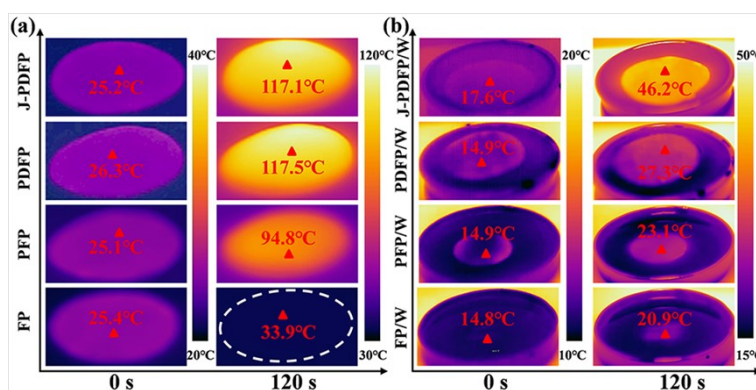


Fig. S7 IR images of FP, PFP, PDFP and J-PDFP under dry condition (a) and operating condition (b).

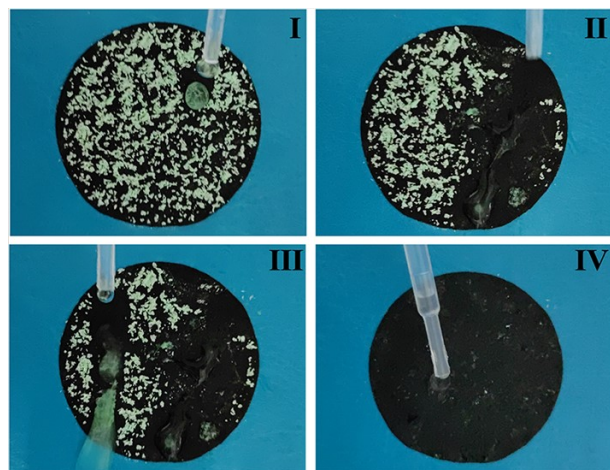


Fig. S8 Self-cleaning property of J-PDFP evaporator.

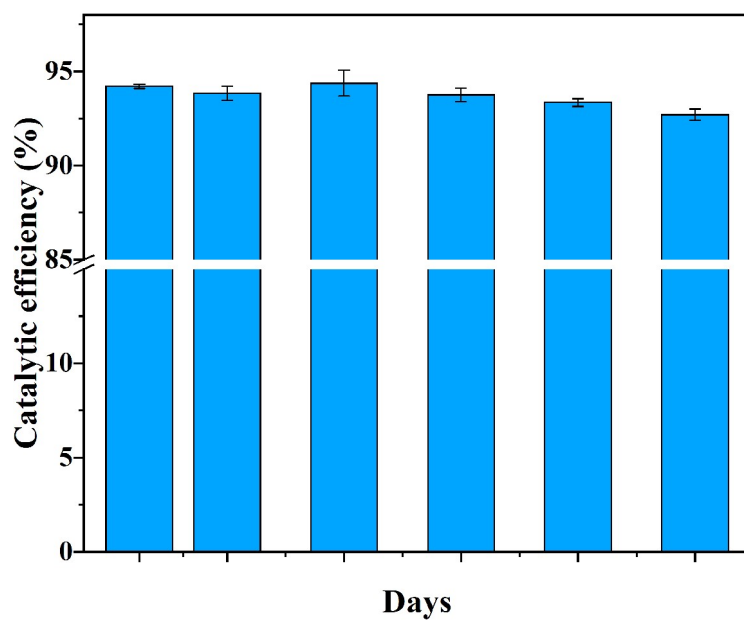


Fig. S9 Long-term catalytic durability of the prepared J-PDFP evaporator.