Supplementary Information

Flexible transparent and hydrophobic SiNCs/PDMS coatings for anti-counterfeit applications

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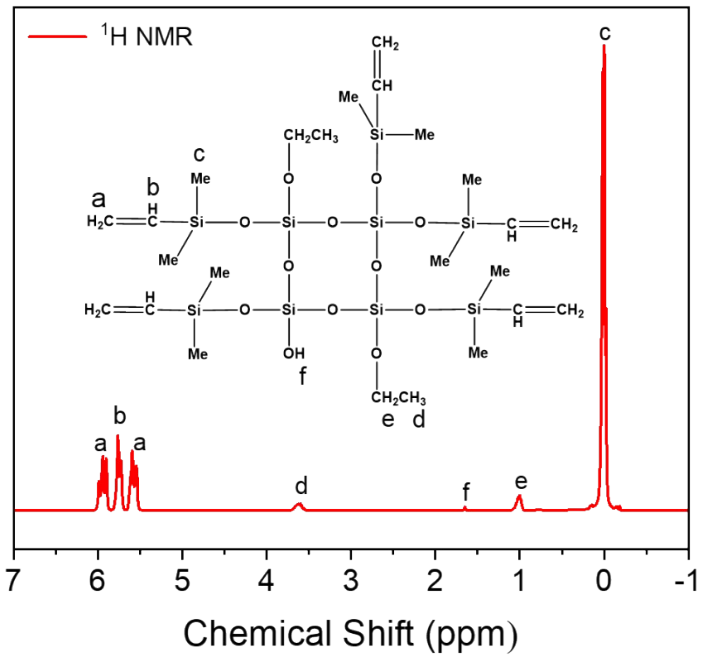

Figure S1. ^{1}H NMR of V-MQ.

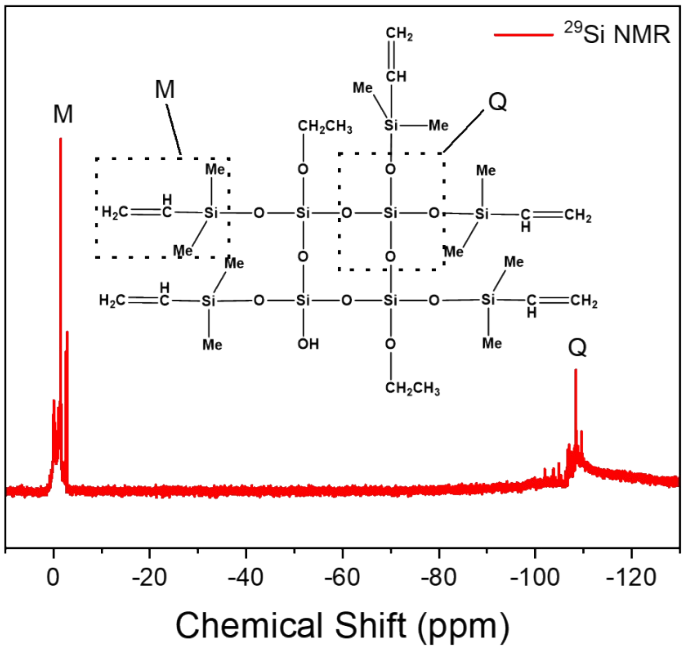

Figure S2. ^{29}Si NMR of V-MQ.

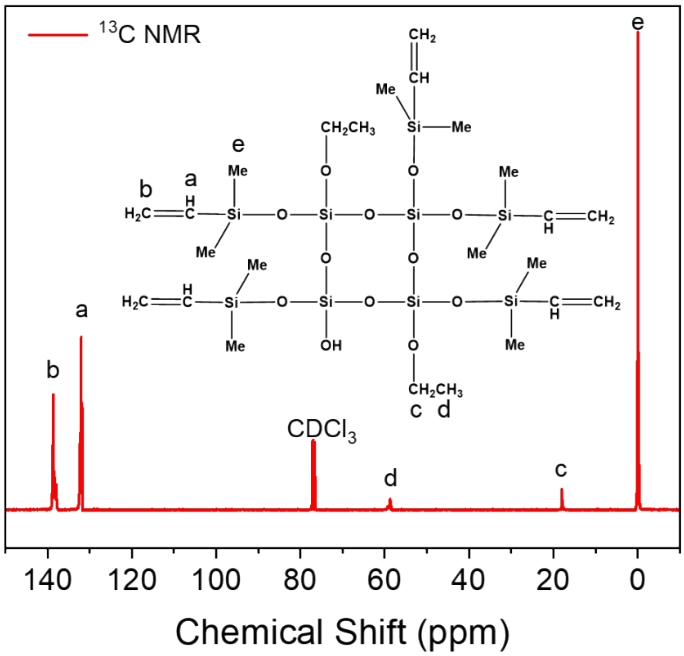

Figure S3. ^{13}C NMR of V-MQ.

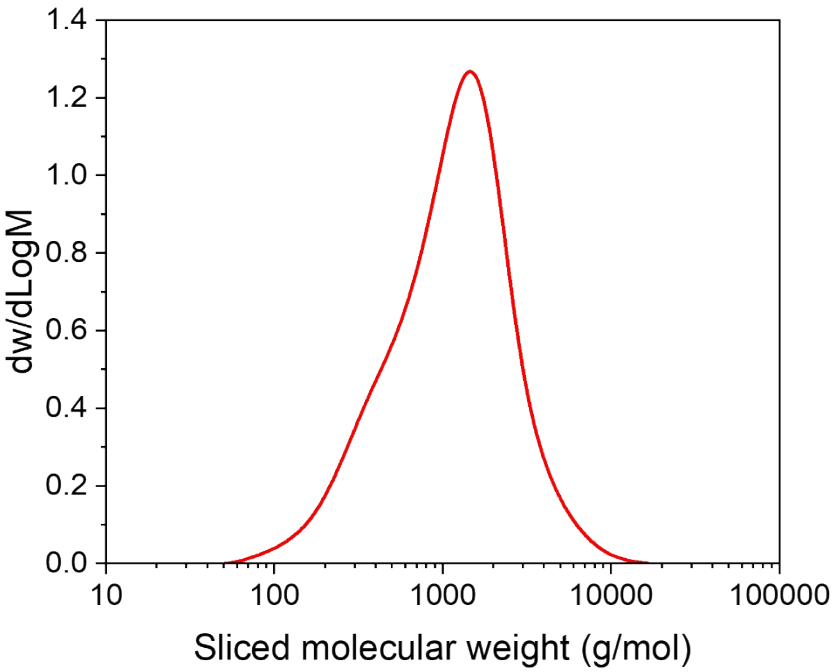

Figure S4. GPC of V-MQ.

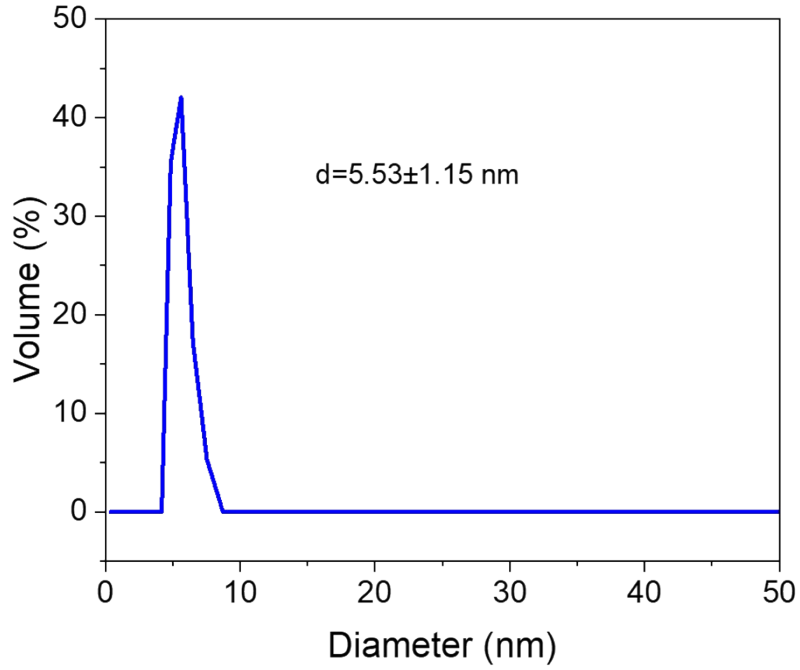

Figure S5. DLS analysis diameters of the De-SiNCs dispered in petroleum ether.

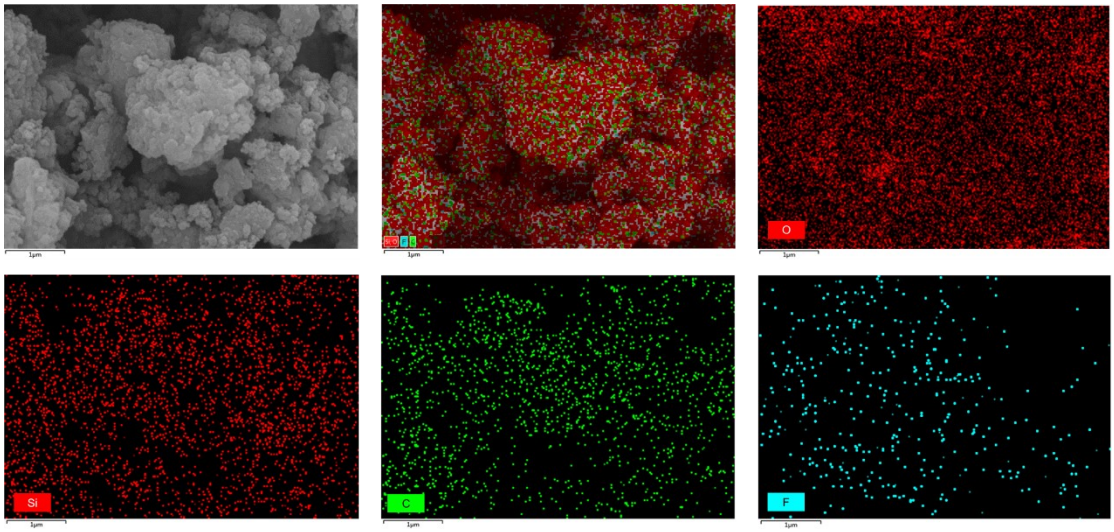

Figure S6. EDS of the De-SiNCs (scale of 1 μm).

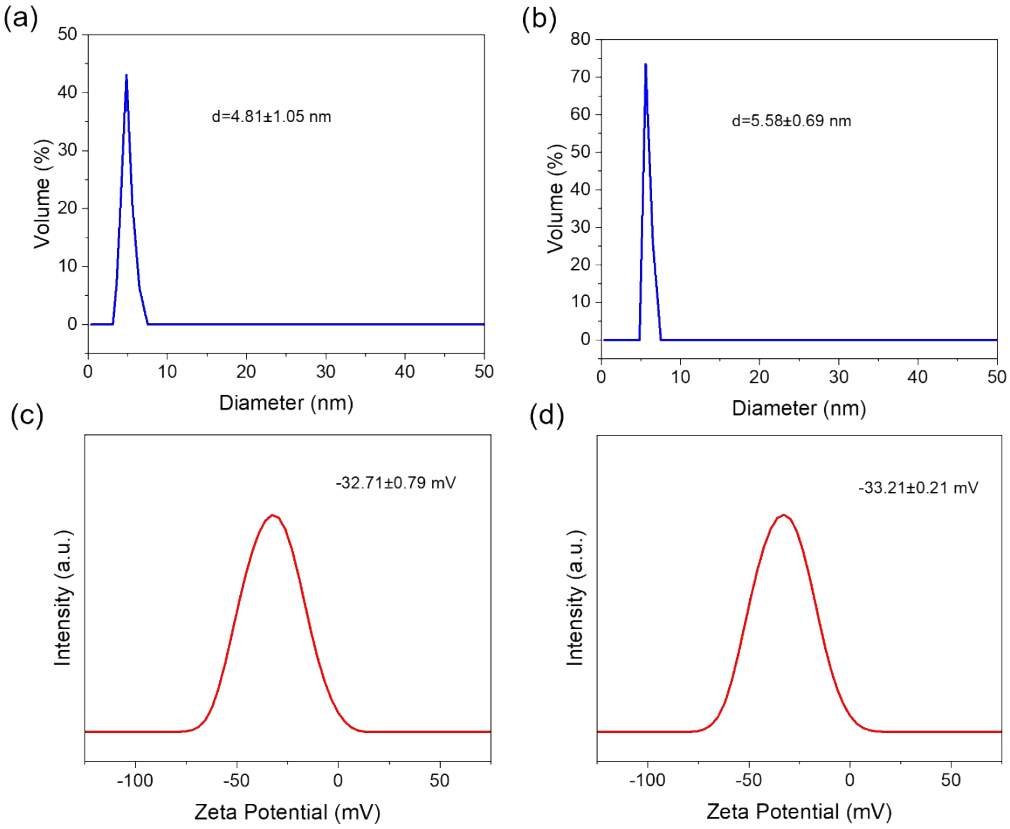

Figure S7. (a-b) Changes in particle size and (c-d) surface potential of De-SiNCs before and after storage for 7 days.

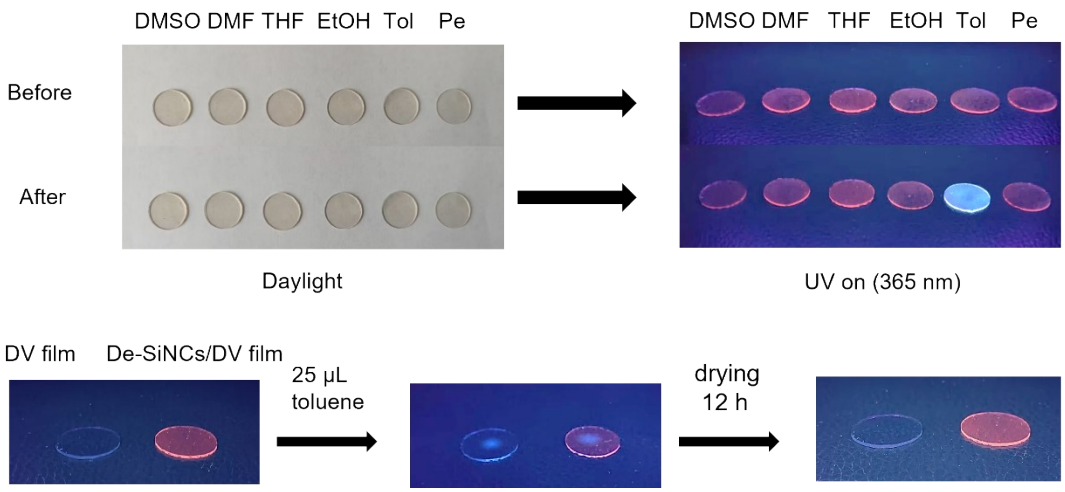

Figure S8. Experimental photo of solvent resistance test of DV and De-SiNCs/DV films.

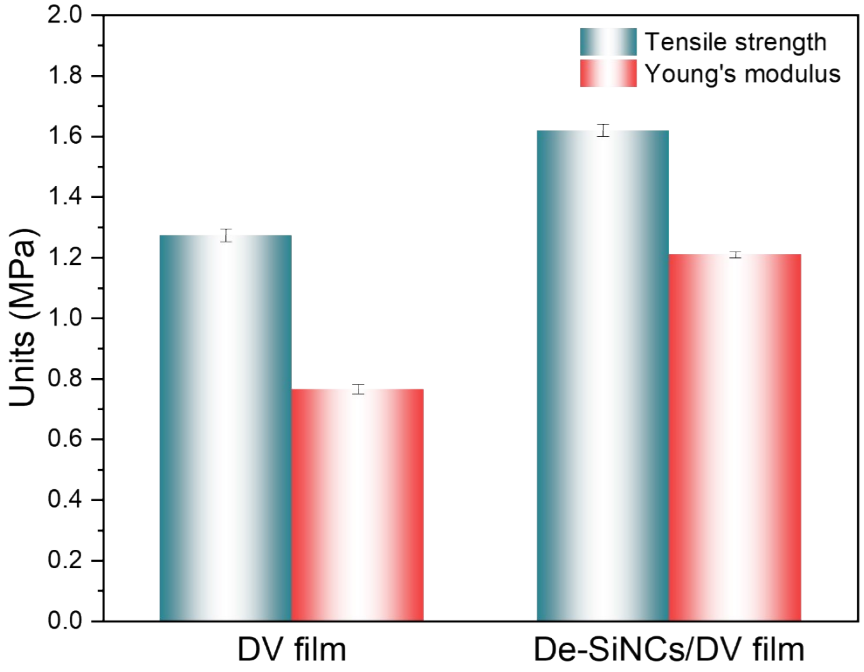

Figure S9. Tensile strength and Young's modulus of DV and De-SiNCs/DV films.

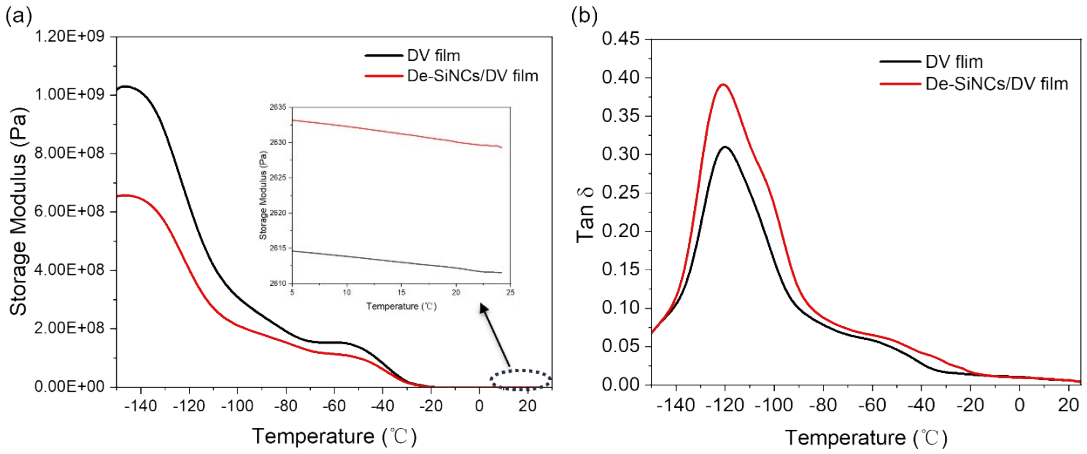

Figure S10. DMA curves of the DV and De-SiNCs/DV films. (a) Storage Modulus. (b) Tan δ.

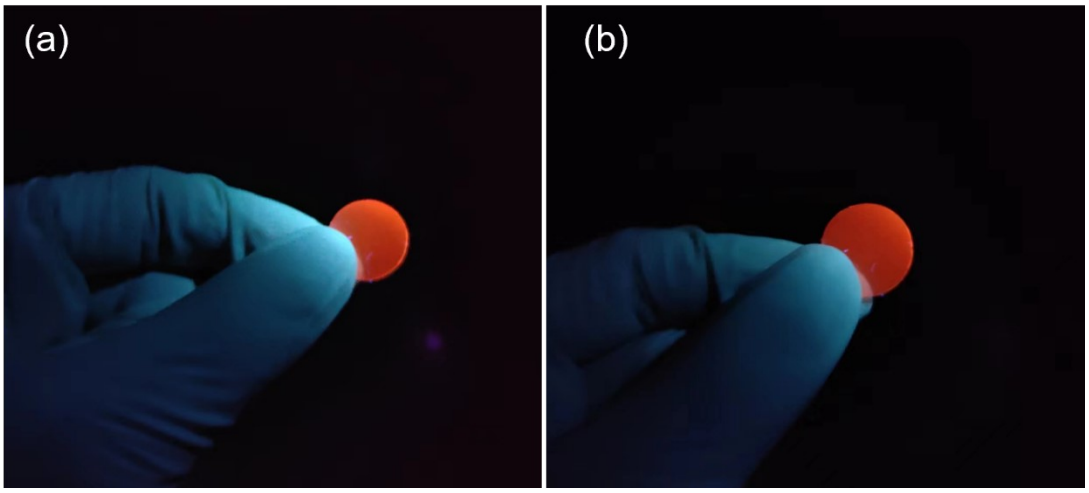

Figure S11. Fluorescence photographs of De-SiNCs/DV films (a) before and (b) after storage for 300 days.

Table S1. Important characterization data for degradation of DV and De-SiNCs/DV films.

Sample	Temperature for 5% weight loss (℃)	Temperature for 20% weight loss (℃)	Temperature at maximum degradative rate (℃)	Residue at 800 ℃ (%)	ΔE^{a} (kJ/mol)
DV film	439.3	514.1	495.0	52.5	45.97
De-SiNCs/DV film	444.9	525.5	605.0	36.4	97.63

[a] Activation energy for the maximum degradation step of DV and De-SiNCs/DV films under a constant heat rate of 10 ℃/min.