

# Tuning Evaporation Driven Deposition in Sessile Drops via Electrostatic Hetero-aggregation

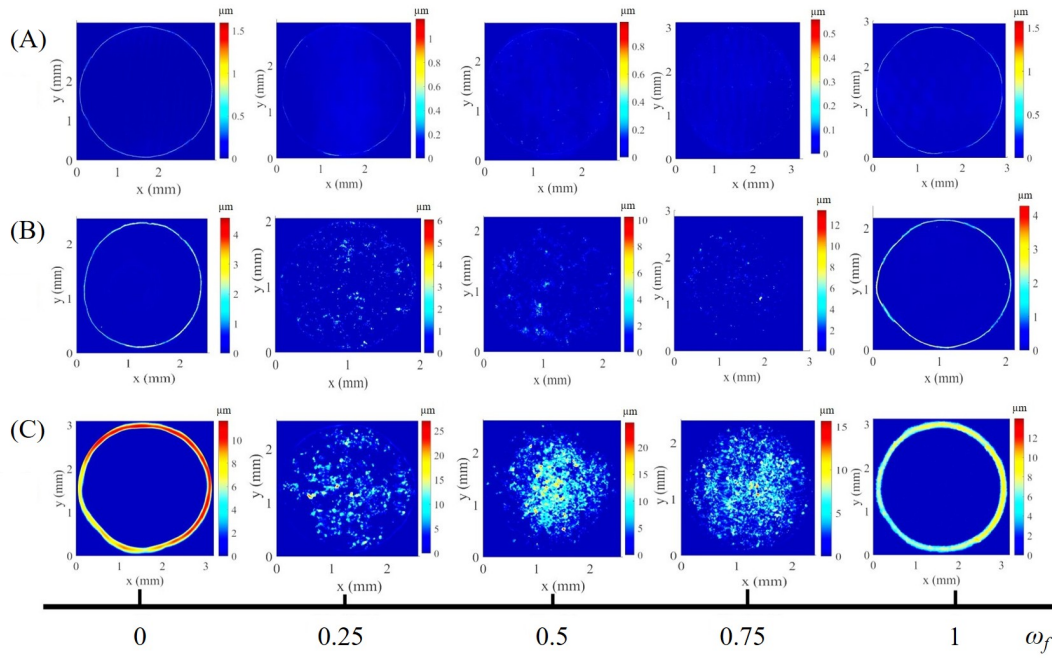
---

## Supplementary Information

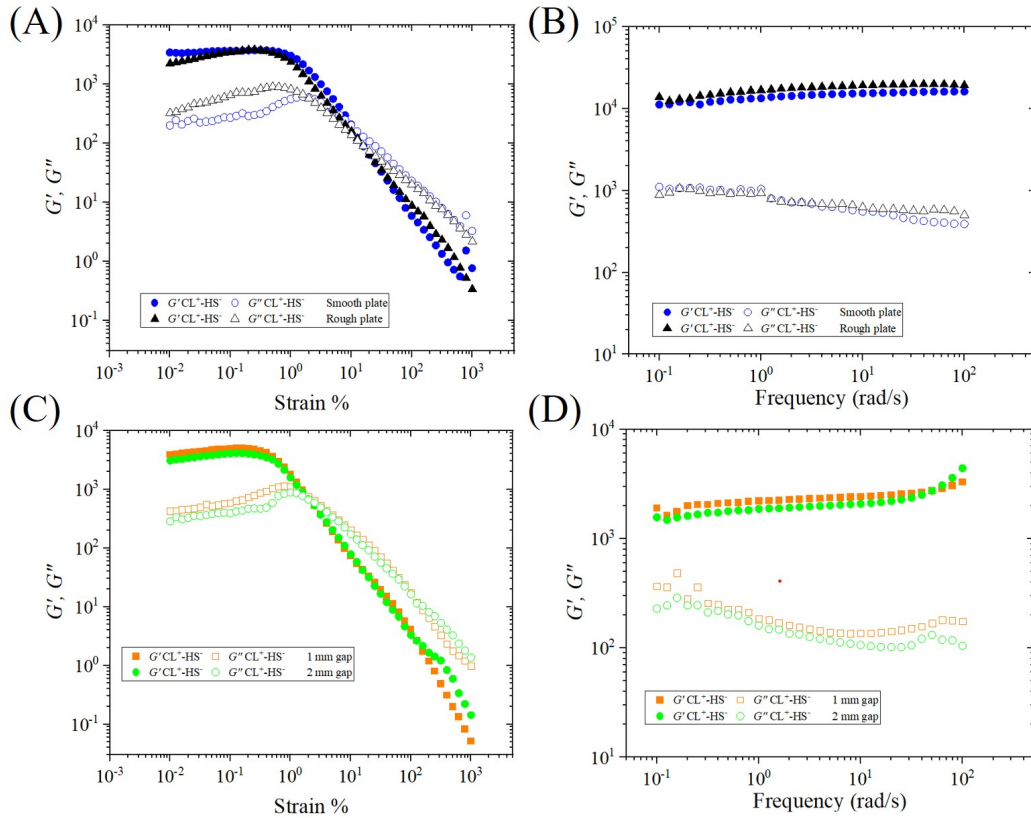
Sankar Hariharan,<sup>a</sup> Md Fariduddin,<sup>a</sup>, Salil S. Vaidya<sup>a</sup>, Sumesh P. Thampi,<sup>a\*</sup> and Madivala G. Basavaraj<sup>a‡</sup>

*Polymer Engineering and Colloid Science Lab, Department of Chemical Engineering, Indian Institute of Technology Madras,  
Chennai 600036, Tamil Nadu, India*

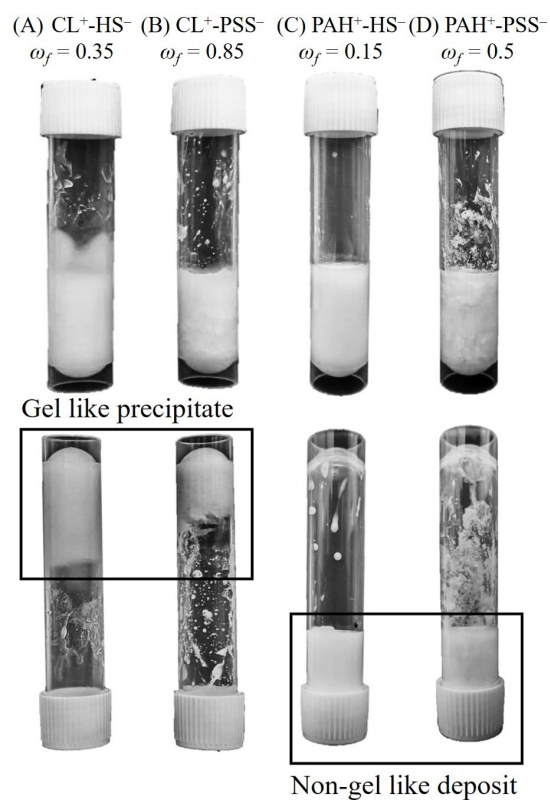
Corresponding authors: <sup>‡</sup>sumesh@iitm.ac.in; <sup>\*</sup>basa@iitm.ac.in



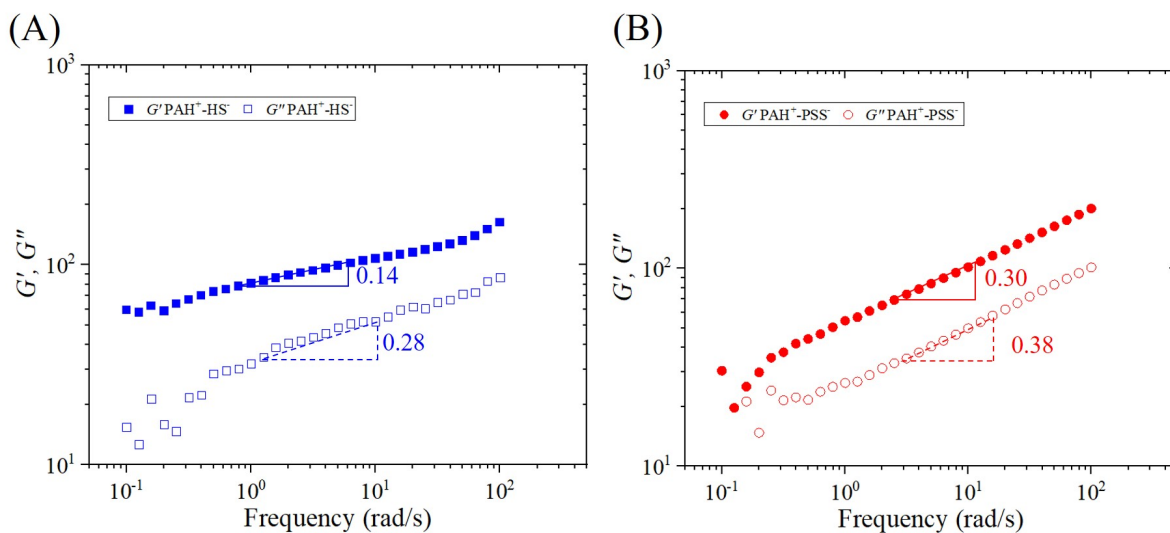
**Fig. S1** Surface profile of the dried deposit patterns formed by drying binary dispersions drops containing  $\text{PS}^+\text{-PS}^-$  ( $\approx 200$  nm diameter) at (A)  $C_T=0.01\%$ , (B)  $C_T=0.1\%$ , and (C)  $C_T=1\%$  for various mixing fractions ( $\omega_f$ )



**Fig. S2** (A, C) Amplitude and (B, D) frequency sweep measurements performed for a binary mixture of  $\text{CL}^+\text{-HS}^-$  using a (A, B) smooth and rough plate at 0.5 mm gap height and (C, D) using a smooth plate at two different gap heights at  $C_T = 10\%$  and at the isoelectric mixing fraction



**Fig. S3** Vial inversion test performed for (A)  $\text{CL}^+-\text{HS}^-$ , (B)  $\text{CL}^+-\text{PSS}^-$ , (C)  $\text{PAH}^+-\text{HS}^-$ , (D)  $\text{PAH}^+-\text{PSS}^-$  at  $C_T=10\%$  and at the isoelectric mixing fractions



**Fig. S4** Frequency response of (A)  $\text{PAH}^+-\text{HS}^-$  and (B)  $\text{PAH}^+-\text{PSS}^-$  binary mixture system performed at a particle concentration of 10 % at the isoelectric mixing fraction using a cone and plate geometry