Quantifying nematic order in evaporation-driven self-assembly of Halloysite nanotubes: Nematic islands and critical aspect ratio

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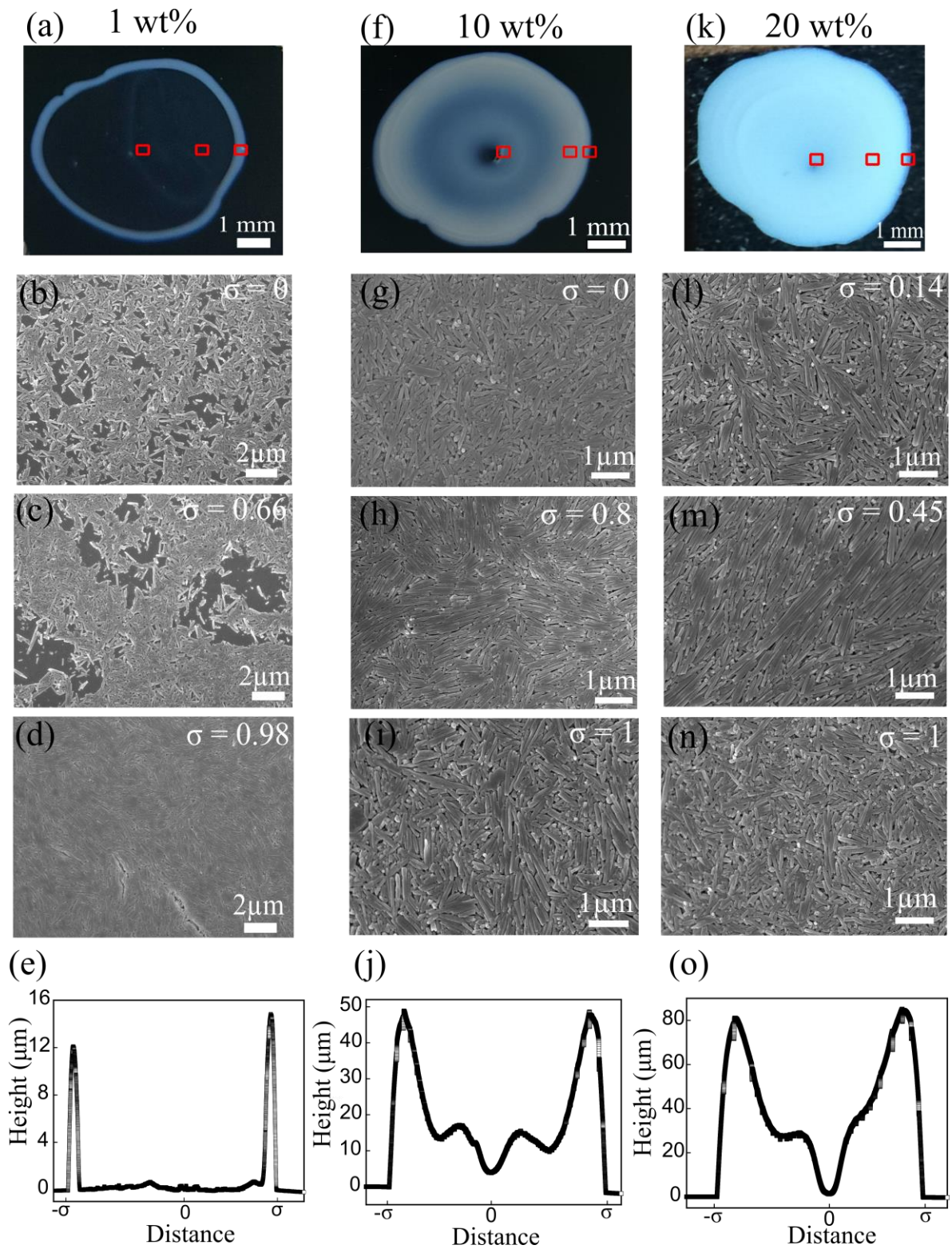[c] *Homi Bhabha National Institute, Anushakti Nagar, Mumbai 400094, India*

Fig. S1: Optical images of dried deposit, corresponding SEM images and height profiles at different σ for $c = 1$ wt. % (a-e), $c = 10$ wt. % (f-j) and $c = 20$ wt. % (k-o) respectively.
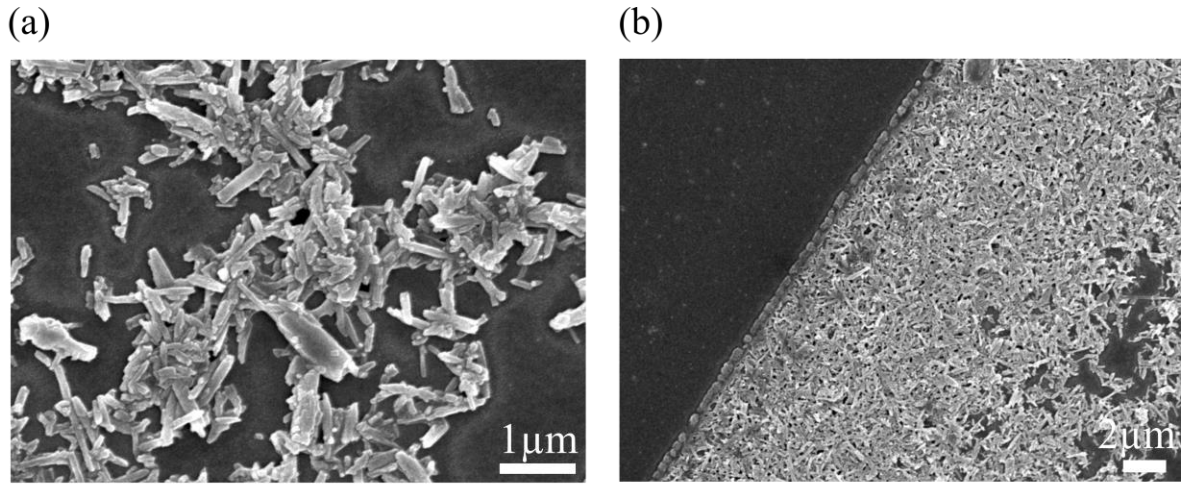
Fig. S2: SEM images of bare HNTs nanorods of $c = 0.5$ wt% at the centre ($\sigma \approx 0$) and at the edge ($\sigma \approx 1$) respectively. Due to the pronounced tendency to form clusters, we do not see nematic order even at the edge of the coffee ring.
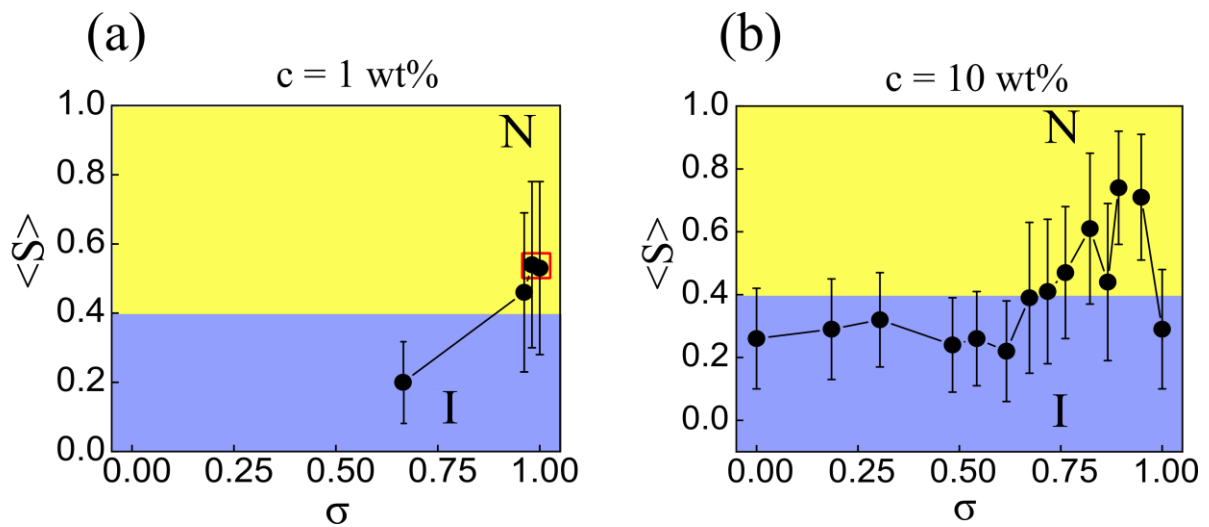

Fig. S3: Non-monotonic behaviour between S and σ emerges as we increase HNT concentration, c. (a) c = 1 wt% (b) c =10 wt%.
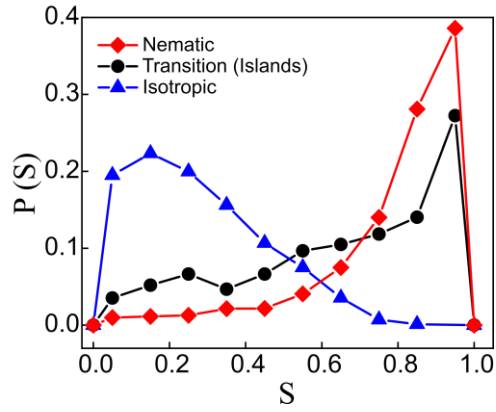
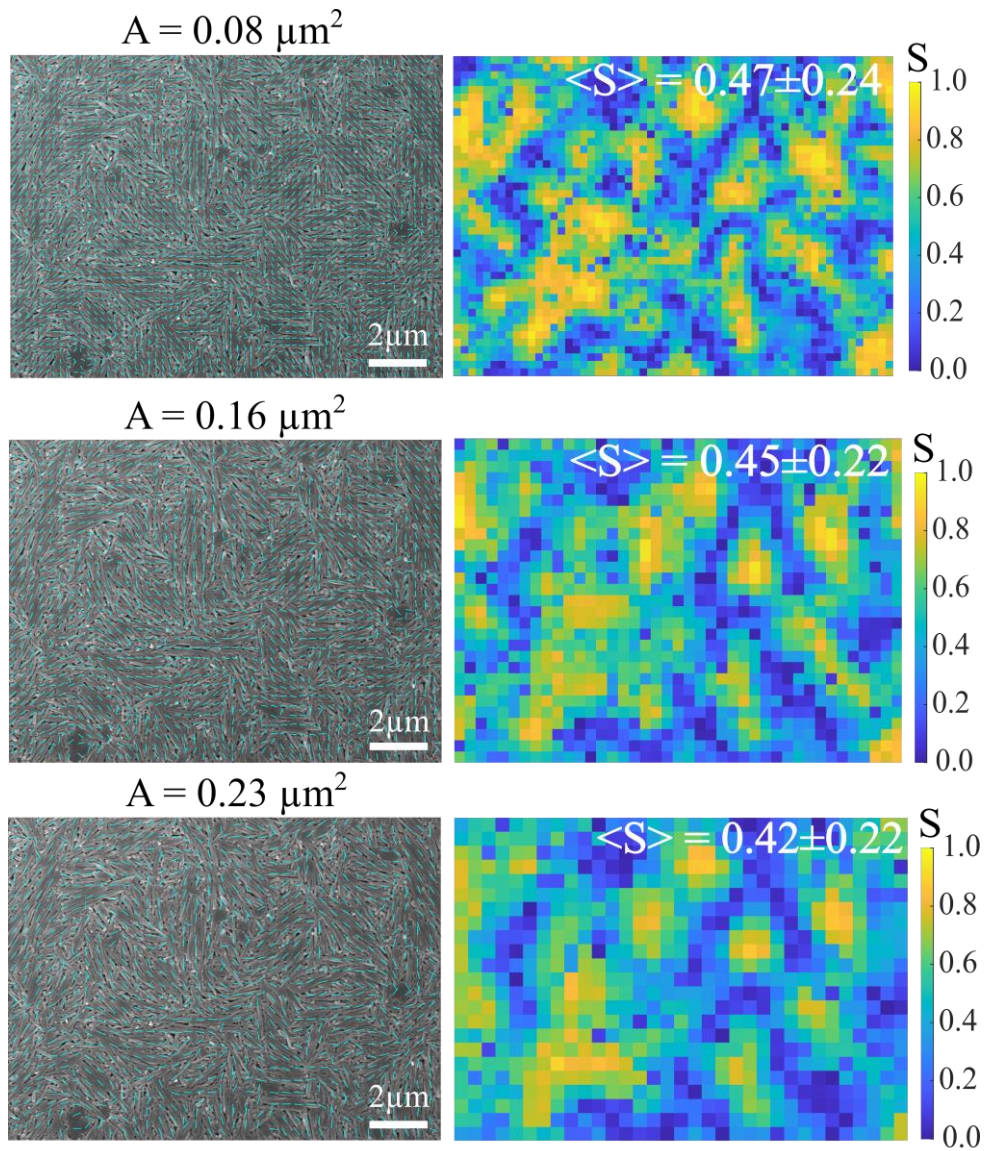**Fig. S4:** Distribution of local nematic order P(S) for nematic, isotropic and transition phase in our experiments.

Fig. S5: The effect of grid area A for calculating *S* in an SEM image. Clearly, the resulting <S> is independent of the choice of A over a range of $0.08 - 0.23 \ \mu m^2$.