

Figures

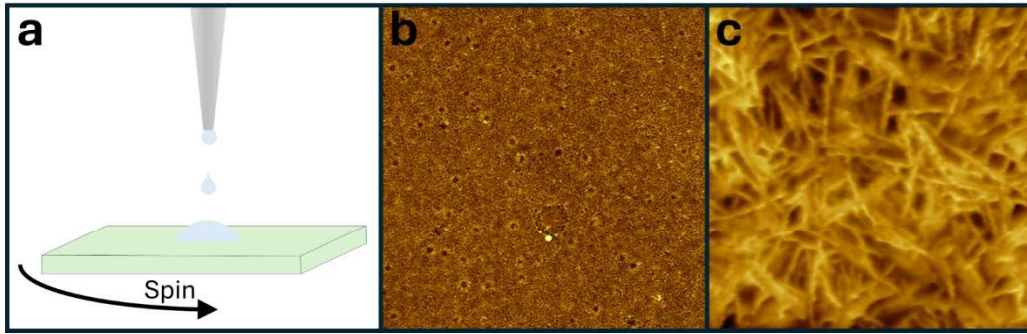


Figure 1: (a) Depiction of the spin coating process, (b) $40\ \mu\text{m} \times 40\ \mu\text{m}$ AFM scan window showing uniformity of the surface, and (c) a $500\ \text{nm} \times 500\ \text{nm}$ AFM scan window showing the Nylon fibrils prior to rubbed alignment.

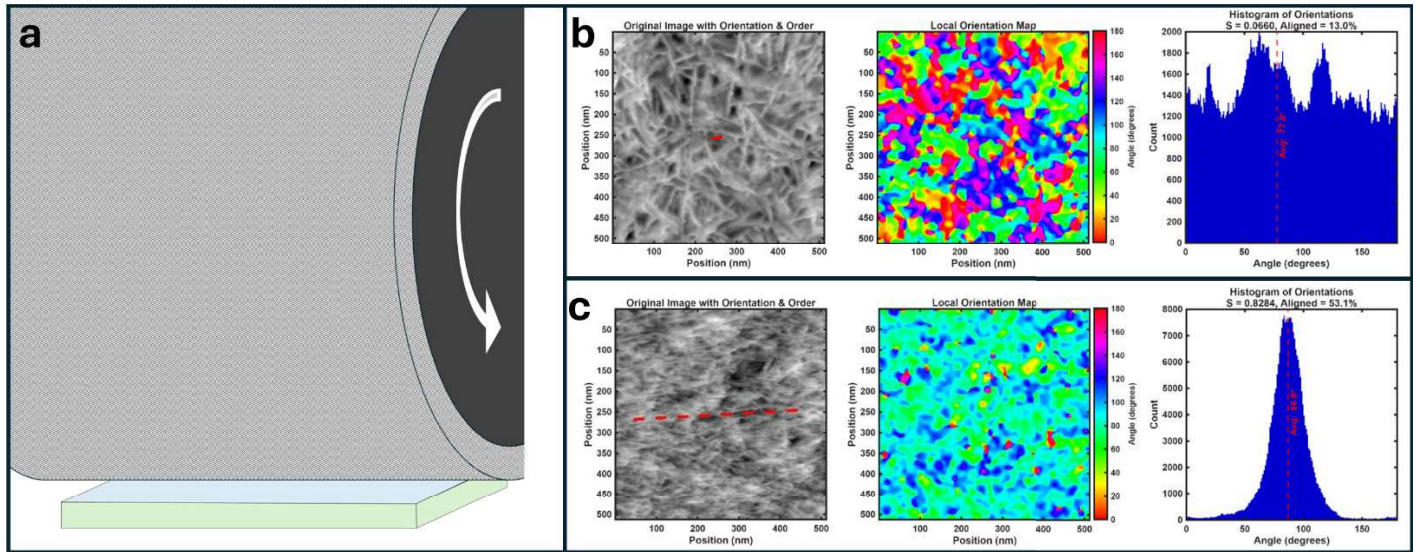


Figure 2: (a) Depiction of the rubbed alignment process, (b) map and histogram of polymer fibril orientation before rubbing, and (c) map and histogram of orientation after rubbing, confirming polymer realignment.

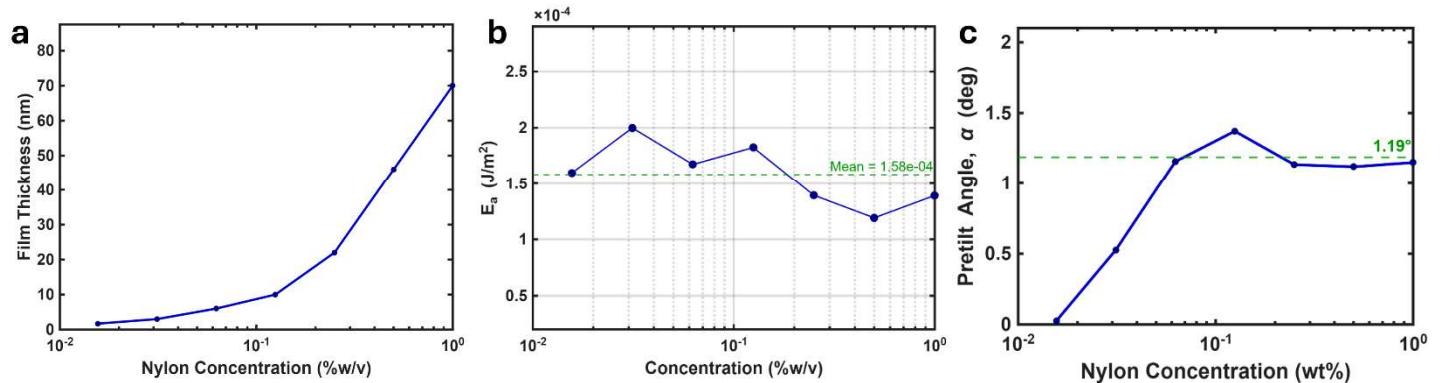


Figure 3: (a) Relationship between nylon spin concentration and film thickness shows approximate linearity despite representation on a logarithmic axis, (b) relationship between solution concentration and anchoring energy remains approximately constant across all concentrations, and (c) relationship between spin concentration and pretilt angle showing concentration-correlated behavior below approximately 0.0625% solution concentration, and pretilt saturation above 0.0625% with a mean value of 1.19° .