

Supporting Information

Vapor-Induced Marangoni Coating for Organic Functional Film

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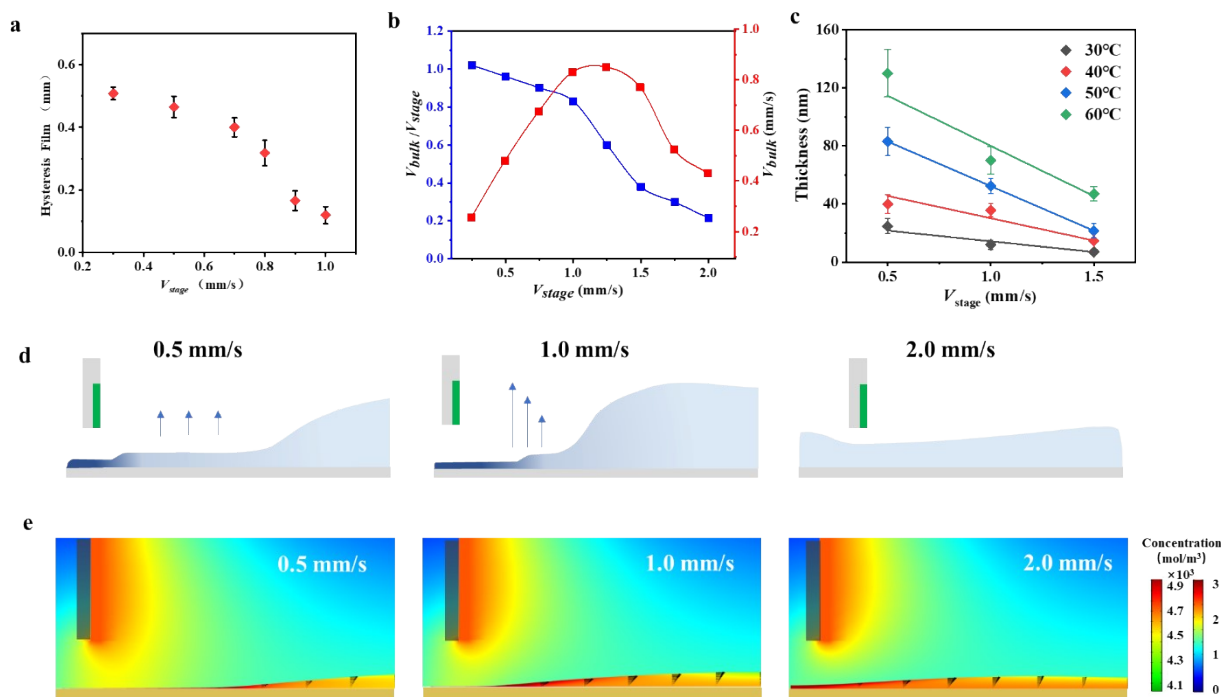


Figure S1. (a) Variation of the length of hysteresis film (l) with V_{stage} . (b) Variation of the ratio of V_{bulk} to V_{stage} and V_{bulk} with V_{stage} . (c) The film thickness related to stage temperature and velocity. (d) Schematic illustration of the meniscus shape comparing with the V_{stage} . (e) The diagram is the simulation of the liquid film deformation and solution flow rate with different V_{stage} .

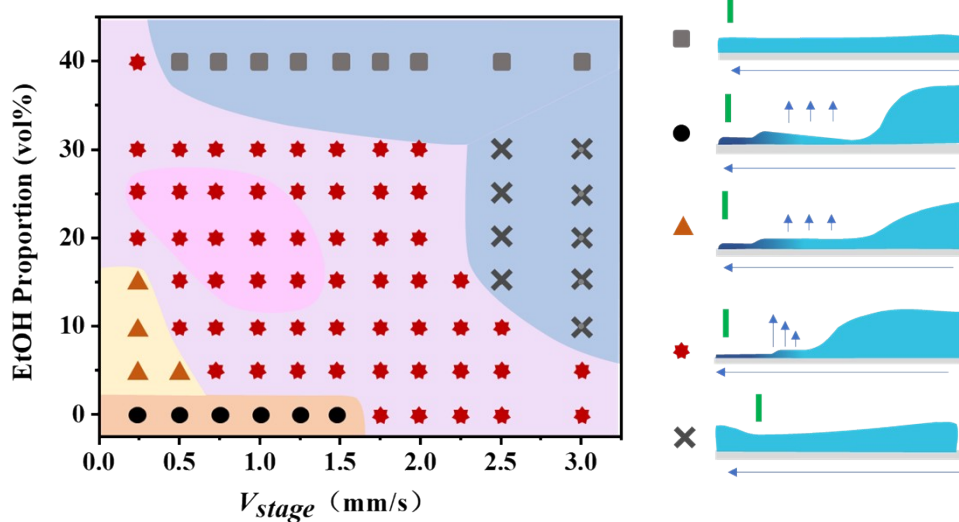


Figure S2. Phase image of vapor-induced coating related to surface tension difference and stage velocity V_{stage} .

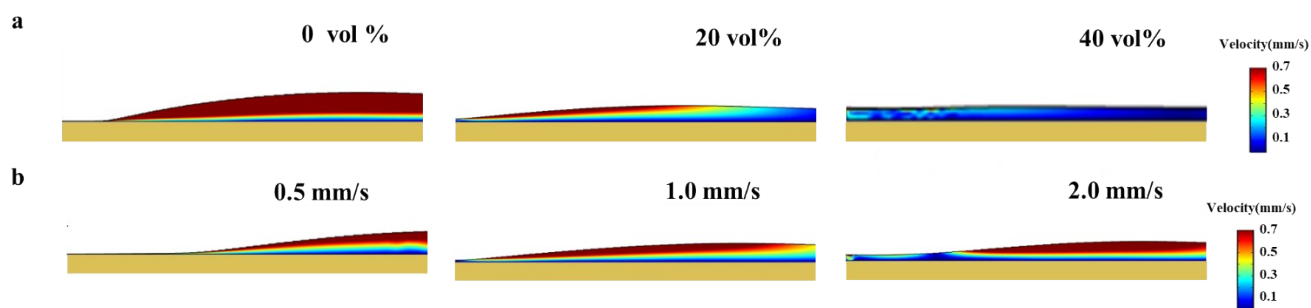


Figure S3. Simulation diagram of liquid film deformation and solution flow rate. (a) The diagram is the simulation of the liquid film deformation and solution flow rate with different concentrations of ethanol. (b) The diagram is the simulation of the liquid film deformation and solution flow rate with different V_{stage} .

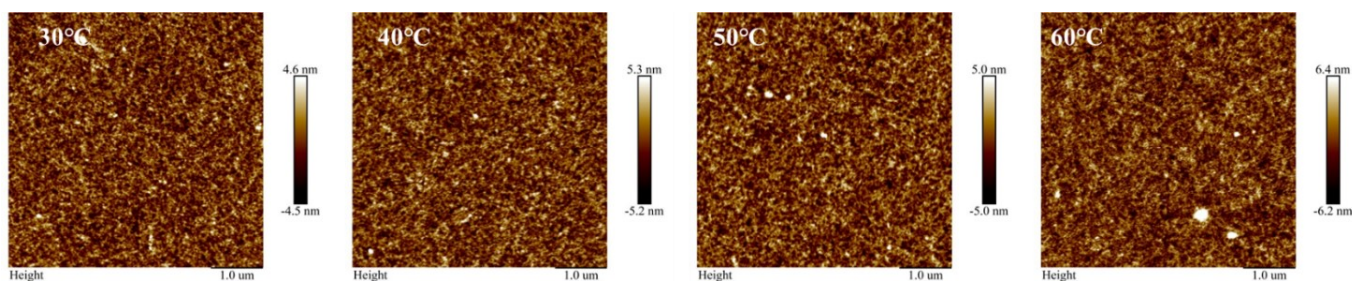


Figure S4. AFM morphology images of vapor-induced PEDOT:PSS films at different temperatures. The morphology of PEDOT:PSS films is similar at different temperatures.

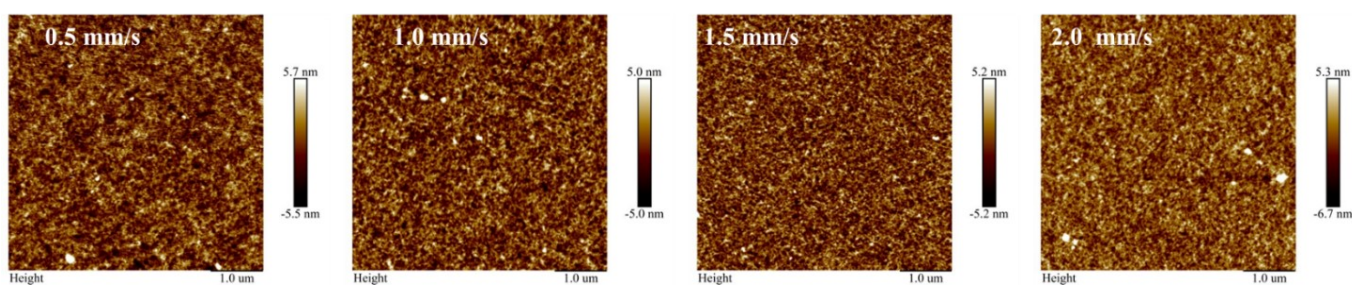


Figure S5. AFM morphology images of vapor-induced PEDOT:PSS films at different V_{stage} . The morphology of PEDOT:PSS films is similar at different velocities.

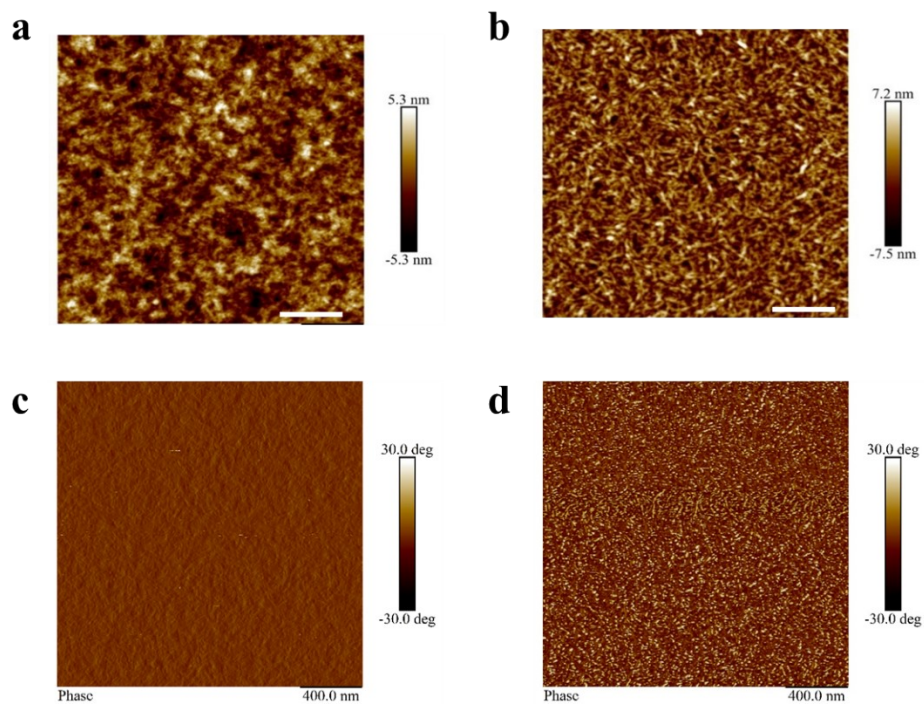


Figure S6. (a-b) AFM morphology images of blade coating PEDOT:PSS films before (a) and after H_2SO_4 treated (b), scale bars, 400 nm. (c-d) AFM phase images of blade coating PEDOT:PSS films before (c) and after H_2SO_4 treated (d), scale bars, 400 nm. Blade-coating film shows small particles without obvious phase separation.

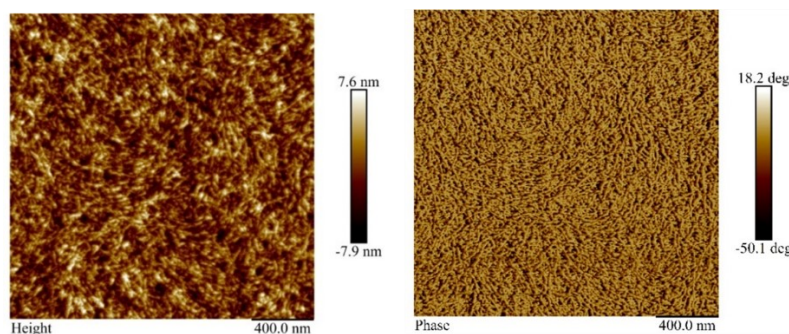


Figure S7. (a) AFM morphology images of vapor-induced coating PEDOT:PSS films after H_2SO_4 treated, (b) AFM phase images of vapor-induced coating PEDOT:PSS films after H_2SO_4 treated, scale bars, 400 nm.

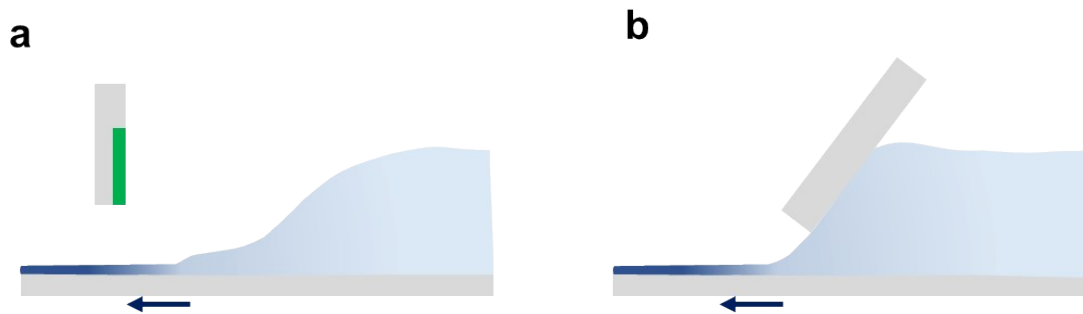


Figure S8 Schematic of (a) vapor-induced coating and (b) blade coating.

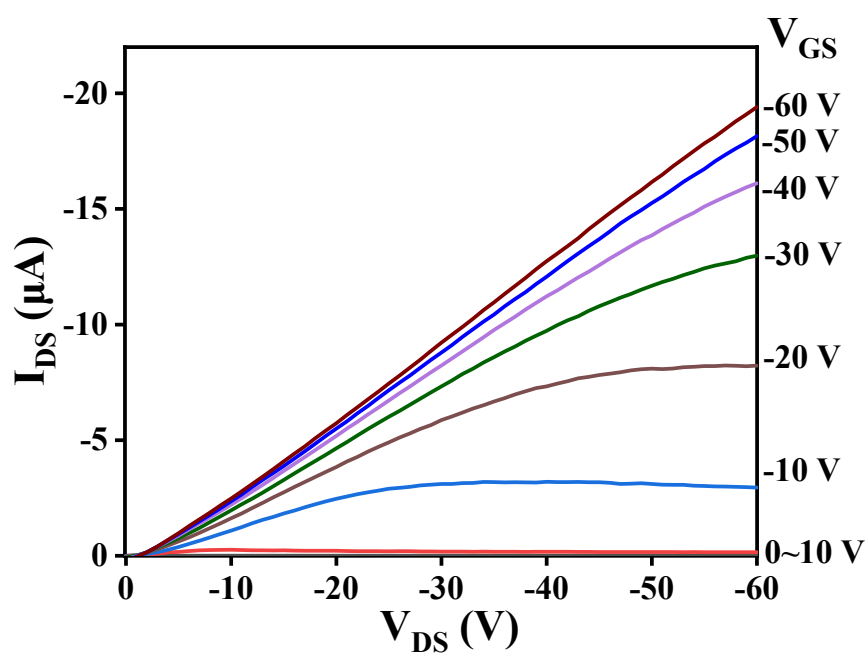


Figure S9. Output curves for organic field-effect transistors (OFETs).