**A simple strategy for fabricating honeycomb patterns on commercially available polymer film under a wide humidity range**

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**Figure S1.** Changes of the surface morphology of the honeycomb patterned films through varying the preparation conditions of RH level (a) 40% ;(b) 50%;(c) 65% ;(d) 70%; (e) 80% and (f) 90%. Scale bar: 5μm. ( other conditions were kept constant with the concentration of 70 mg/ml, the methanol content of 33% and the temperature of 25℃).



**Figure S2.** With the water content in the mixed solution increases, the EC solution gradually changes from clarification to emulsion. (a) without water; (b) the water content in the mixed solution reached 3.2wt%.