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## **Supporting Information**

## Hierarchically photonic structured stimuli-responsive materials as high-performance colorimetric sensors

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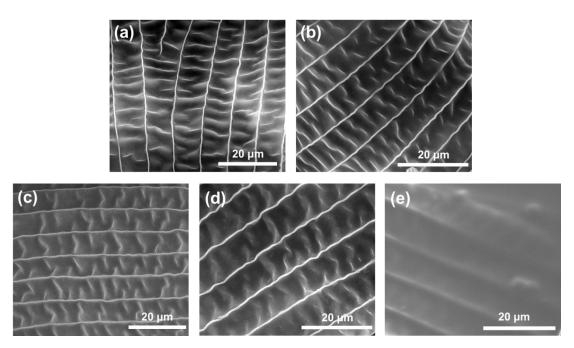


Figure S1. Low magnification SEM images of (a) original *Papilio* butterfly wings, (b) alkalitreated biotemplate and (c-e) PAAm-*Papilio*-1, -2 and -3.

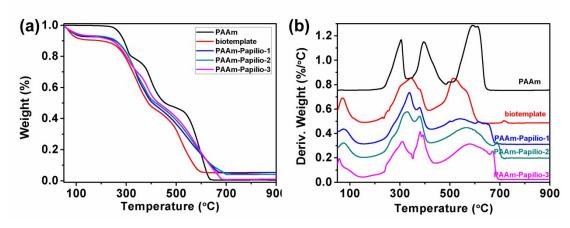


Figure S2. TGA (a) and DTGA (b) curves of pure PAAm, alkali-treated biotemplate and three samples with different polymer content.