

Supporting Information

Photothermal Responsive Composites of Graphene Oxide/Liquid Crystal Networks with Different Mesogenic Arrangements towards Flexible and Bionic Devices

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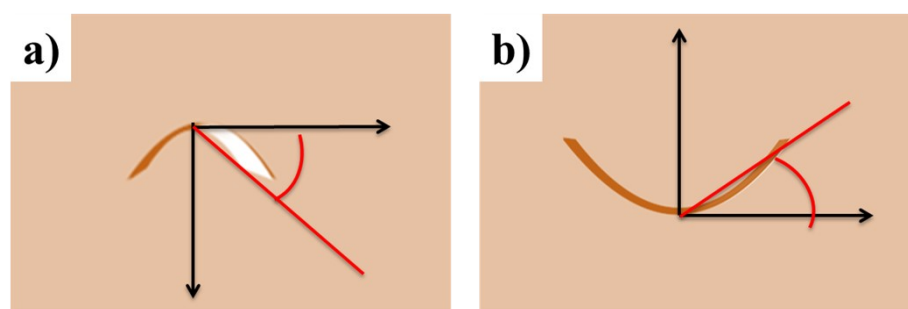


Figure S1. Diagram of bending Angle

When the edge of the film is bent, we define the angle between the centre of the bend and the horizontal line of the edge of the film as the bending angle of the film, which is taken as negative when the edge is bent downwards and positive when the edge is bent upwards.

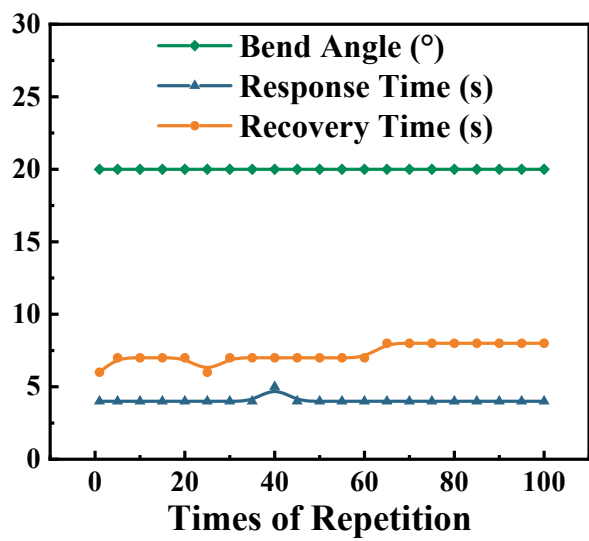


Figure S2. Response performance of Type I film in the 100 stimulus-response tests

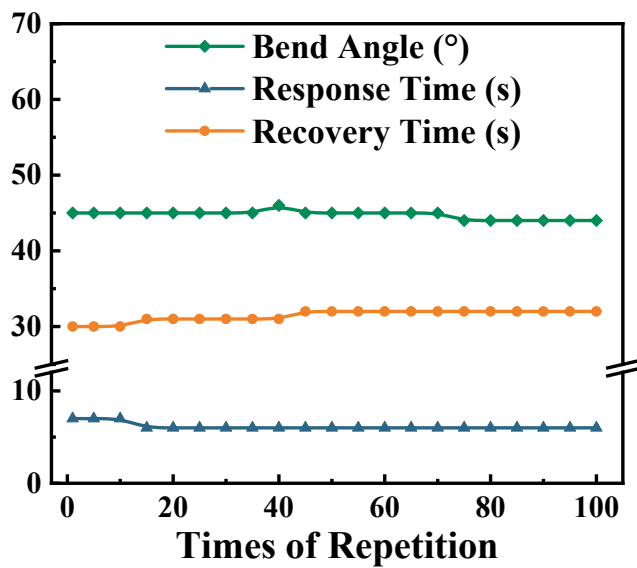


Figure S3. Response performance of Type II film in the 100 stimulus-response tests

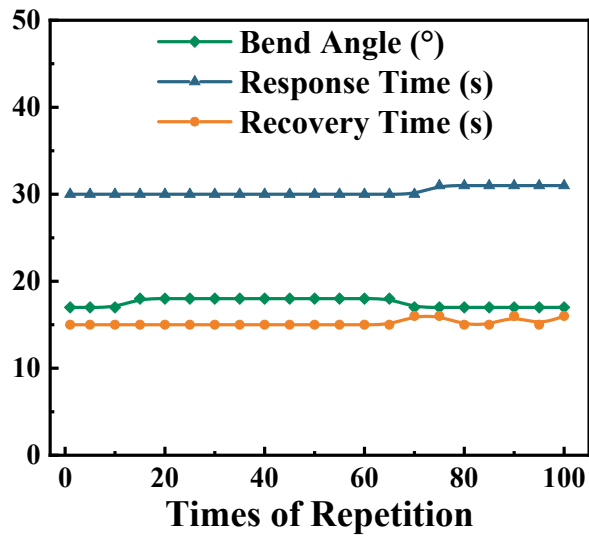


Figure S4. Response performance of Type III film in the 100 stimulus-response tests

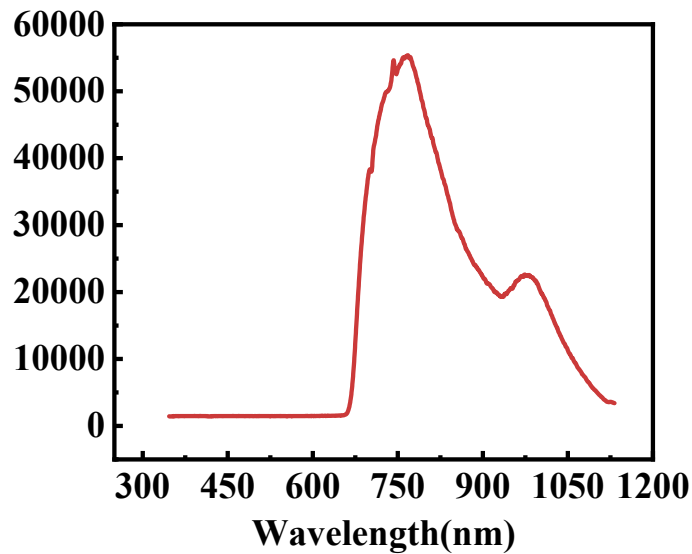


Figure S5. Near-infrared spectrograms used in the paper

Supplementary movie legends

Supplement files S1: Fluttering behaviour of a bionic butterfly stimulated by infrared light. (The infrared intensity is 200 mW/cm², and the response time of the bionic butterfly is 5s.)

Supplement files S2: Curling behaviour of a bionic leaf stimulated by infrared light. (The infrared intensity is 200 mW/cm², and the response time of the bionic leaf is 3s.)

Supplement files S3: Biomimetic looper designed to achieve crawling behaviour under

infrared stimulation. (The infrared light intensity is 200 mW/cm², and the response time of the bionic looper is 5s.)

Supplement files S4: Smart hook for heavy object extraction under the stimulation of infrared light. (The infrared intensity is 220 mW/cm², and the response time of the bionic hook is 3s.)

Supplement files S5: Smart tweezer for heavy grasping heavy objects under the stimulation of infrared light. (The infrared intensity is 220 mW/cm², and the response time of the bionic hook is 7s.)

Supplement files S6: A bionic robot composed of several types of composite membranes walked under infrared stimulation. (The infrared intensity is 220 mW/cm², and the response time of the bionic robot is 5s.)