Electronic Supplementary Material (ESI) for RSC Advances.

(Electronic Supplementary Information)

Fast-response photothermal bilayer actuator based on poly(N-isopropylacrylamide)-graphene oxide-hydroxyethyl methacrylate/polydimethylsiloxane

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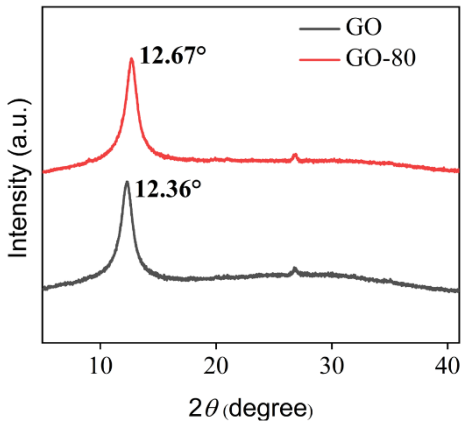

Fig. S1 X-ray diffraction (XRD) spectra of GO and GO heated at 80°C for 2 h (GO-80).

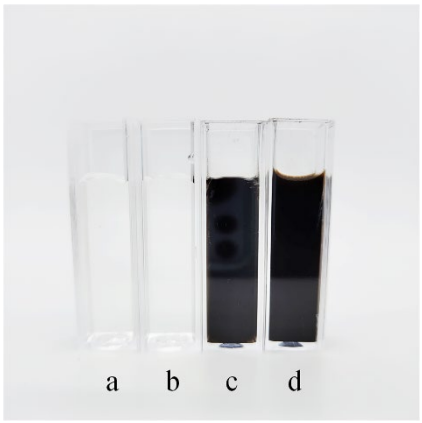

Fig. S2 Digital photos of the Pure PNIPAM, PH, PGH-1 and PGH-2 hydrogels in the cuvette (from left to right). (a) Pure PNIPAM, (b) PH, (c) PGH-1, and (d) PGH-2.

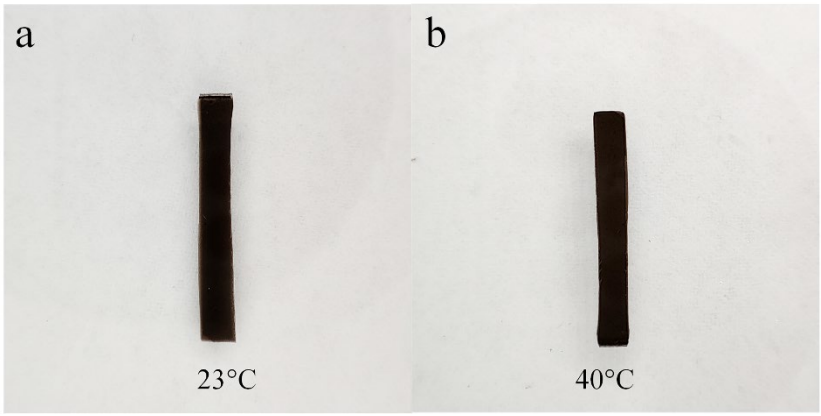

Fig. S3 Photos of PGH-2 in room temperature and hot solution. (a) in room temperature water (25°C). (b) in hot solution (40°C).

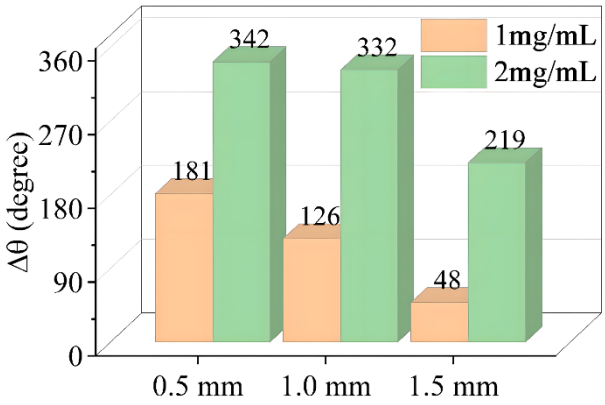

Fig. S4 Comparison of thermo-responsive actuation behavior of the bilayer actuators with different GO concentration and different thickness of PNIPAM-based composite hydrogel films.