## Supporting information:

## Thermo-and near infrared light-induced reversible multi-shape

## memory material for actuators and sensors

Xi Xie<sup>a,#</sup>, Xu Xu<sup>a,#</sup>, Qixuan Zhu<sup>b</sup>, Shaorong Lu<sup>a</sup>, Yuqi Li<sup>\*,a</sup>, and Yongkang Bai<sup>\*,b</sup> a. Key Laboratory of New Processing Technology for Nonferrous Metals and Materials, Ministry of Education, College of Materials Science and Engineering, Guilin University of Technology, Guilin, 541004, China

b. School of Chemical Engineering and Technology, Shaanxi Key Laboratory of Energy Chemical Process Intensification, Institute of Polymer Science in Chemical Engineering, Xi'an Jiaotong University, Xi'an, Shaanxi 710049, PR China;

Corresponding Author: Yuqi Li, liyuqi@glut.edu.cn

Yongkang Bai, yongkangbai@sina.com

#These authors contributed equally to this work.

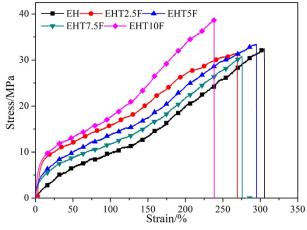


Figure S1 strain-stress curves of EVOH based SMPs

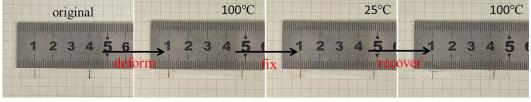


Figure S2 Shape memory behaviors of EVOH