

## Supporting Information

### Thermo-, near-infrared light and water-induced shape memory polymer with healing fatigued shape memory performance

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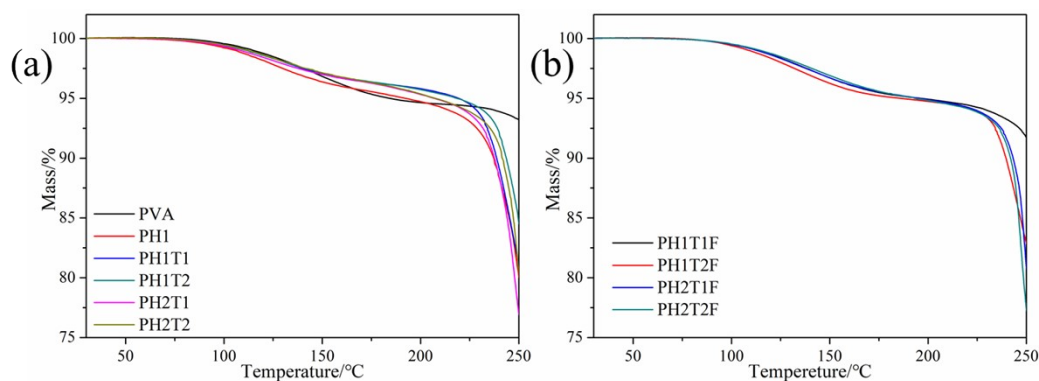


Figure S1 TGA curves PVA and PVA based SMPs

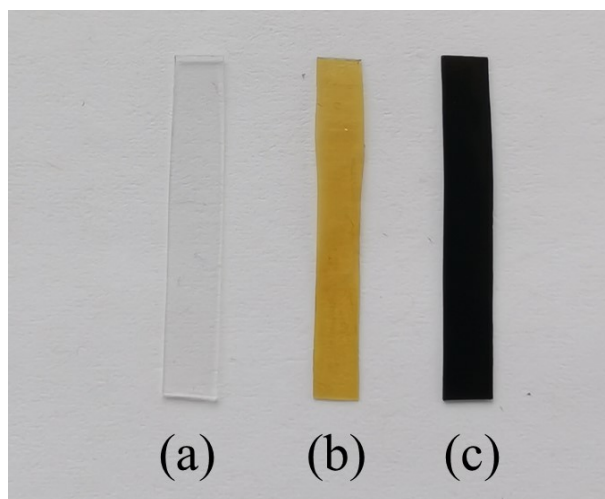


Figure S2 Optical picture of (a) PH1, (b) PH1T1 and (c) PH1T1F

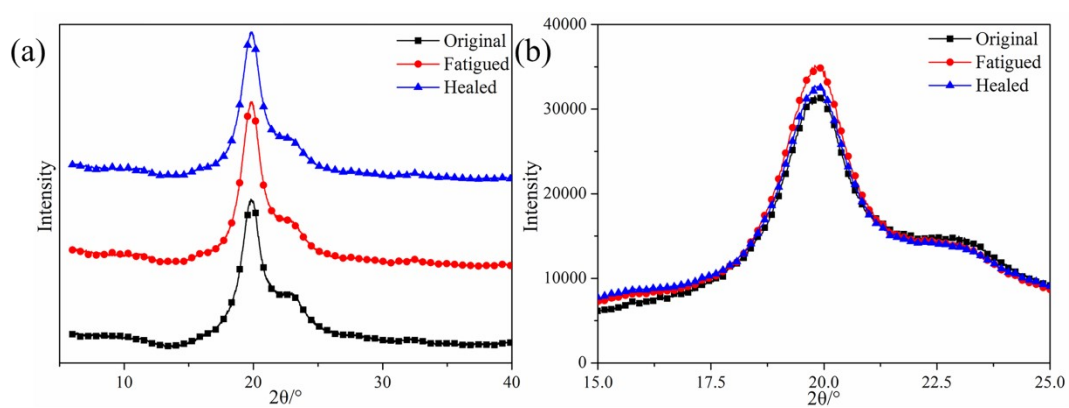


Figure S3 (a) and (b) XRD patterns of original, fatigued and healed PH2T1F

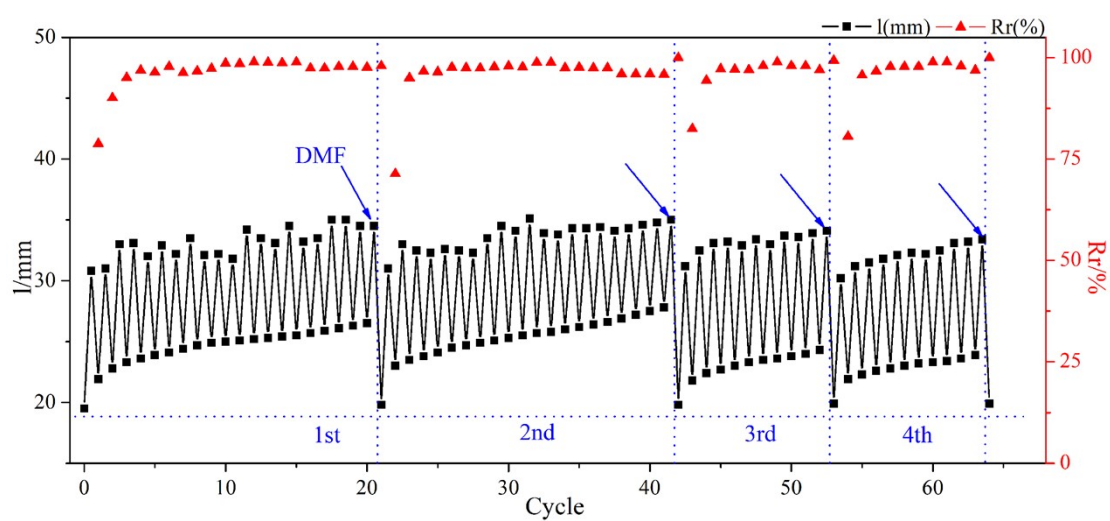


Figure S4 Fatigue-healing behavior of cross-linked EVOH