Supplementary Materials

Ultrastretchable Electrical Switch Fiber with Magnetic Liquid Metal Core for Remote Magnetic Actuation

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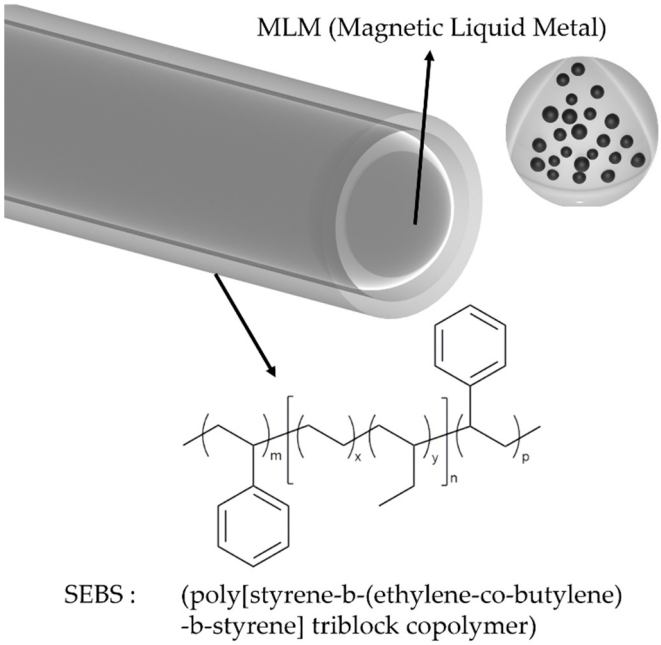

Figure S1. Schematic of MLM@SEBS fiber and the chemical structure of poly[styrene-b-(ethylene-co-butylene)-b-styrene]) triblock copolymer (SEBS) fiber.

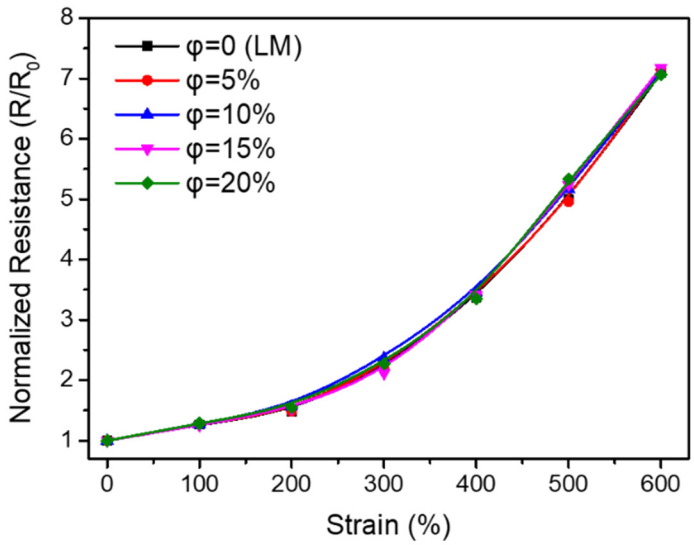

Figure S2. Normalized resistance changes of the LM@composite fiber and 5, 10, 15, and 20% MLM@composite fiber as a function of strain.

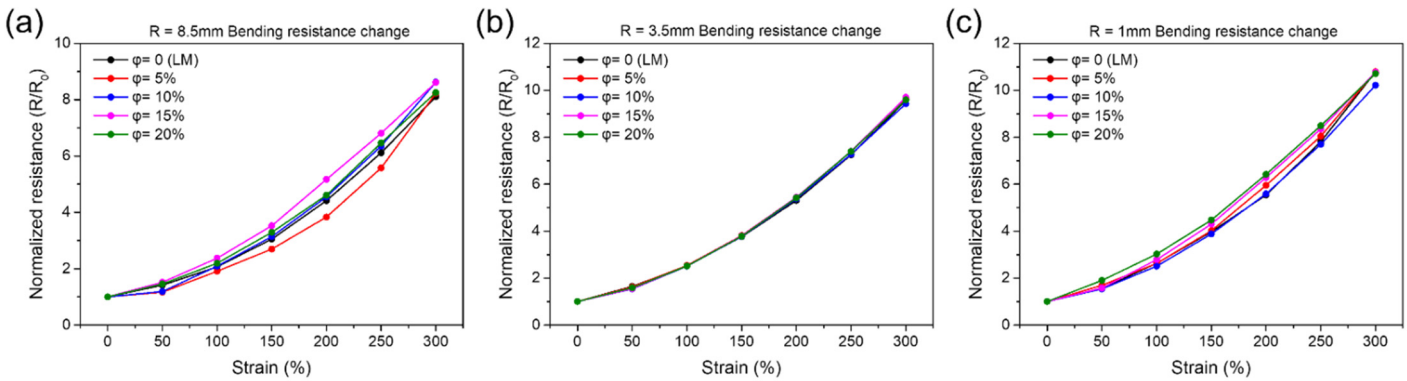

Figure S3. Normalized resistance changes of the LM@SEBS fiber and 5, 10, 15, and 20% MLM@SEBS fiber as a function of strain and bending radius (R), (a) R= 8.5 mm, (b) R= 3.5 mm, and (c) R= 1 mm.

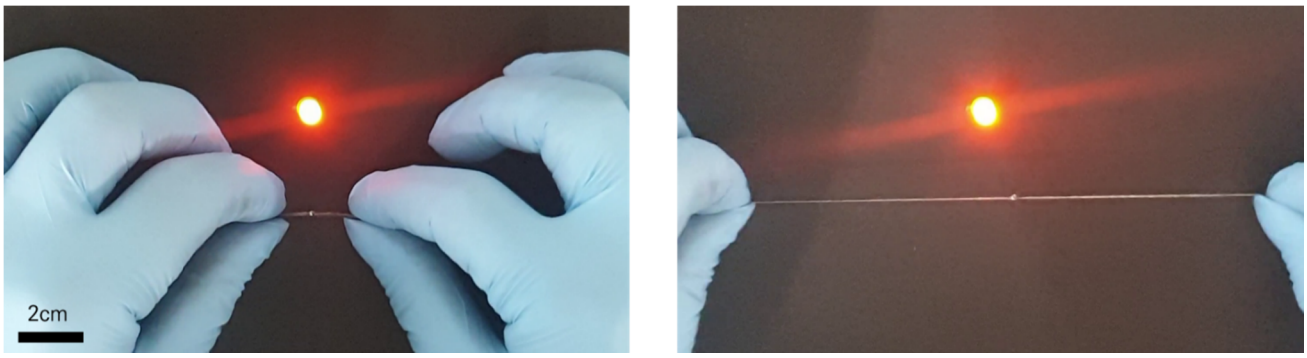

Figure S4. Stretching of a knotted 10% MLM@SEBS fiber to 600% strain while maintaining conductivity.

Supplementary Video List

Video S1. Stretching of a 5 cm 10% MLM@SEBS fiber to 25 cm while maintaining conductivity.

Video S2. Stretching of a knotted 10% MLM@SEBS fiber to 600% strain while maintaining conductivity.

Video S3. Activation of a LED by contact with a MLM@SEBS fiber via remote magnetic actuation.

Video S4. Switching three LEDs by contact with a MLM@SEBS fiber via remote magnetic actuation.