## **Electronic Supplementary Information (ESI)**

## Suppressing the negative temperature coefficient effect of resistance in polymer composites with positive temperature coefficients of resistance by coating with parylene

## Chihiro Okutani, <sup>a</sup> Tomoyuki Yokota, <sup>a</sup> Ryotaro Matsukawa <sup>a</sup> and Takao Someya <sup>a\*</sup>

a. Department of Electrical Engineering and Information Systems, Graduate School of Engineering, The University of Tokyo, 7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656, Japan.

\*E-mail: someya@ee.u-tokyo.ac.jp



Fig. S1 Differential scanning calorimetry curve of acrylate copolymer with graphite. The melting point was 36.4 °C.



Fig. S2 Laser scanning confocal microscope images of the thermistor without the parylene coating at each temperature. Scale bars,  $20 \ \mu m$ .



Fig. S3 Change in the temperature of the peak resistance as a function of parylene thickness (N = 3). Error bars describe the standard deviation.



Fig. S4 Frequency dependences of the thermistor without the parylene coating at 25 °C and the commercial resistor (~120  $\Omega$ ). (a) Impedance modulus. (b) Phase angle.