

Supplementary material

Carbon-black-embedded poly(dimethylsiloxane)-paper hybrid device for energy-efficient nucleic-acid amplification in point-of-care testing

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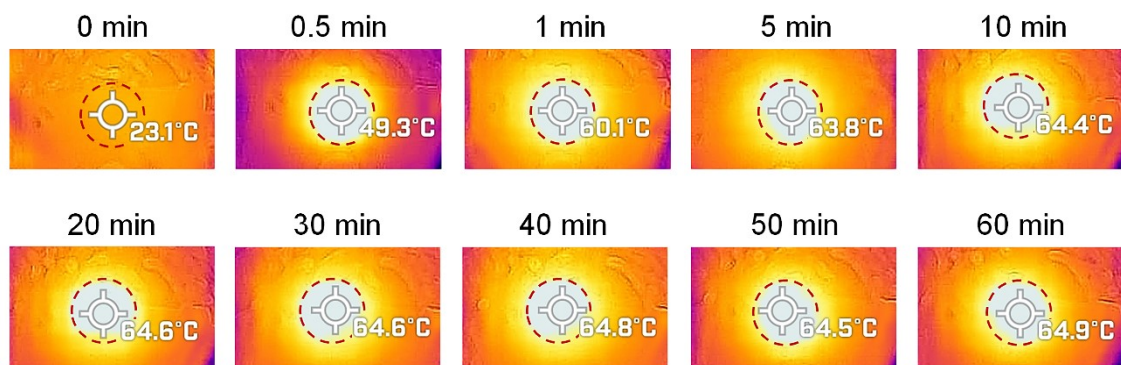


Fig. S1 Infrared (IR) images of the paper-based device patterned with 1% carbon-black-PDMS irradiated by a 0.5 W 808-nm laser taken over 1 h. After the temperature was reached to 64 °C, temperature was maintained with minimal fluctuation.

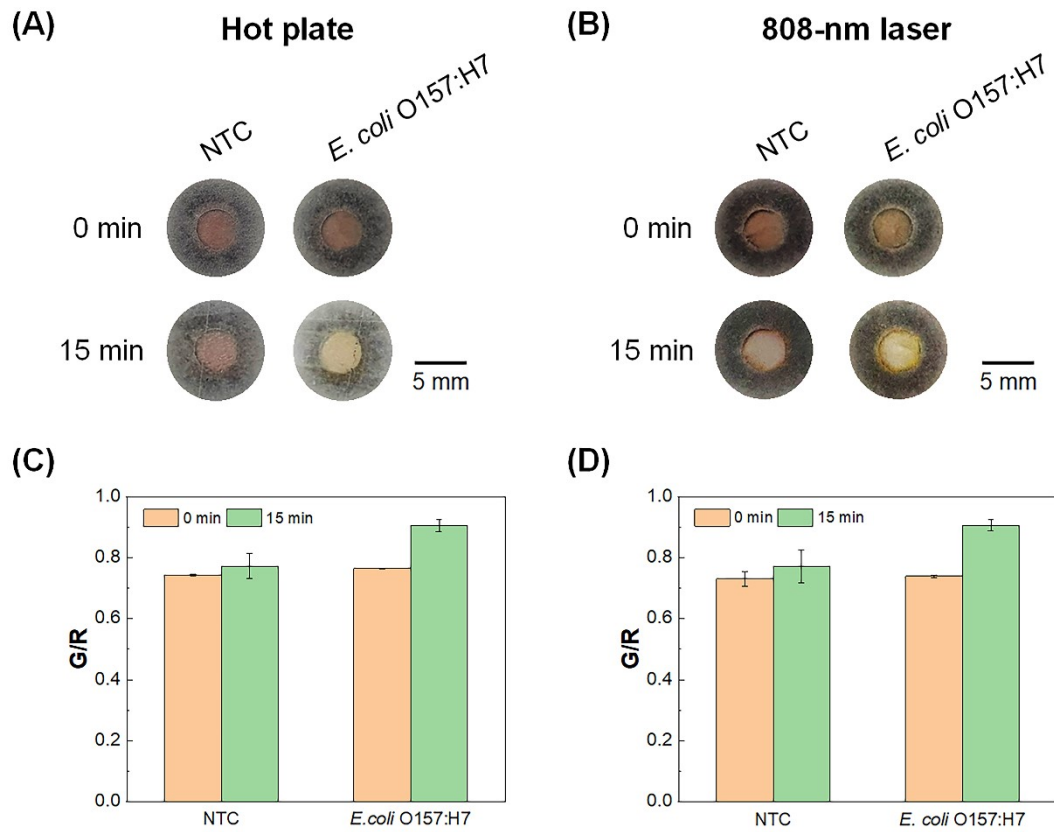


Fig. S2 Comparison between the heating method. (A) and (C) shows the result of the LAMP conducted with hot plate. (B) and (D) shows the result of the LAMP conducted with the 808 nm laser. Regardless of the heating method, only the color of the paper-based device containing *E. coli* O157:H7 changed pink to yellow. The error bars represent the standard deviation of the mean.