

# Supplementary Materials:

## Ligand-Based Stability Changes in Duplex DNA Measured with a Microscale Electrochemical Platform

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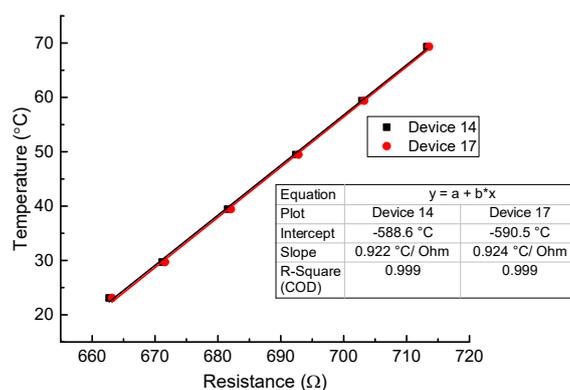
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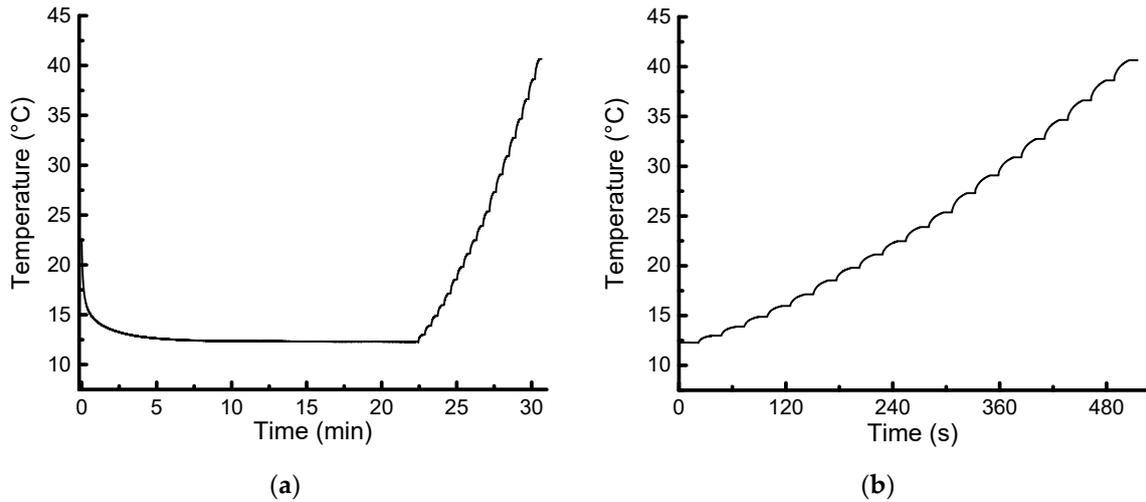
† Now at Spectrix Analytical Services, LLC, North Haven, CT 06473, USA.



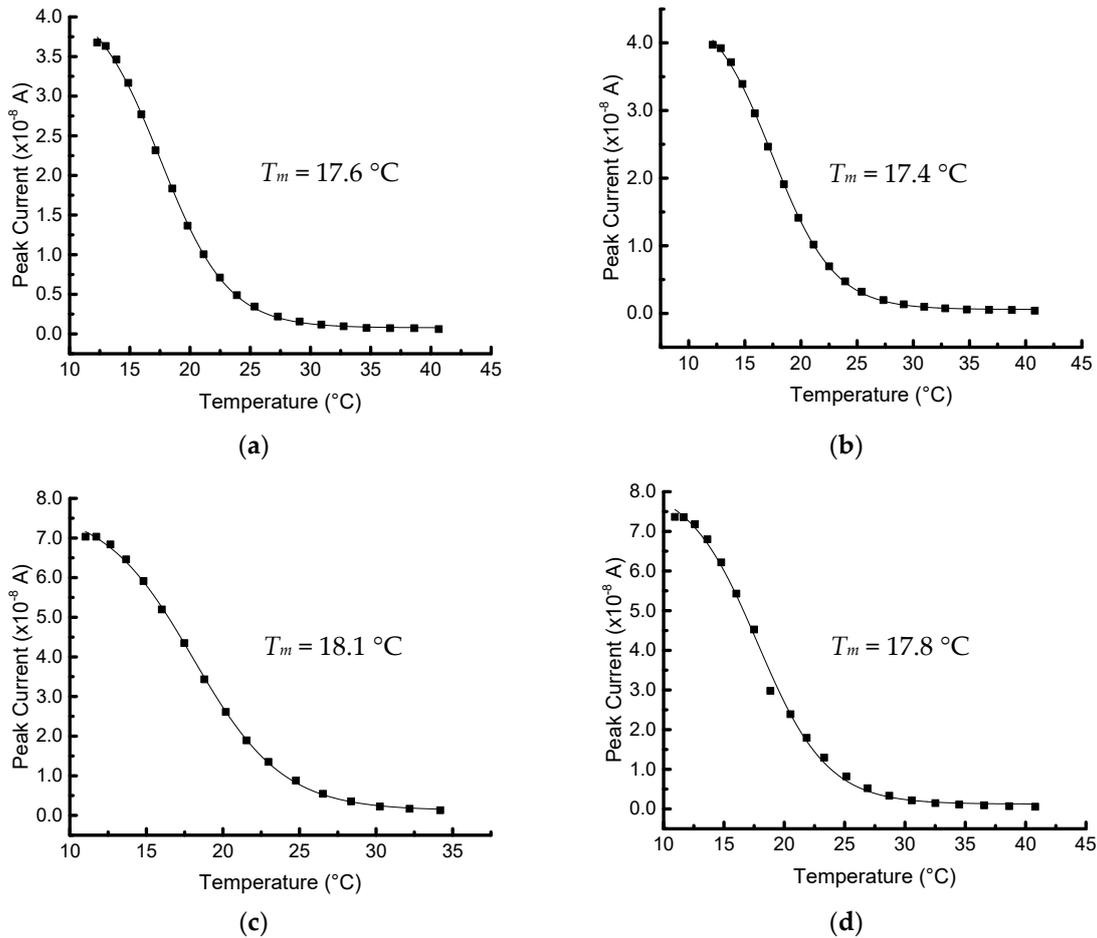
**Figure S1.** Example calibration curve of platinum microheater/PRT.



**Figure S2.** Photo of the assembled platform for thermoelectric heating. (a) Device mounted on PCB with epoxy. Platform includes: (b) devices mounted on PCB above thermoelectric (TE) module with silicone heat-sink compound at the TE/glass interface, (c) wire bonds from contact pads of device electrodes to PCB, (d) wire bonds from contact pads of PRT to PCB, (e) leads to PRT, (f) lead to Au working electrode, (g) lead to Pt reference electrode, (h) lead to Pt counter electrode, (i) leads to TE module (under device), (j) Al block heat sink, and (k) screws used to secure PCB to Al block. RTV pillars under PCB are not shown.



**Figure S3.** (a) Full temperature program of platform in a melting experiment with 20 min of cooling at 0.3 V applied to thermoelectric, and (b) an expanded view of the melting portion of the experiment. The voltage was stepped by 0.25 V every 25 s from 0.3 V to -0.3 V.



**Figure S4.** Duplex melting curves on two different devices on the same day. (a) and (b) show results for Wafer 8, Device 17, trials 1 and 2; (c) and (d) show results for Wafer 8, Device 14, trials 1 and 2. All data were plotted in OriginPro 2016 and a Boltzmann function was used fit to the data to find  $T_m$ .