

**P and N type copper phthalocyanines as effective semiconductors in organic thin-film transistor based DNA biosensors at elevated temperature**

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Supplementary Information

Figures S1 and S2 display the electronic data for CuPc and F16-CuPc devices deposited at  $T = 25\text{ }^{\circ}\text{C}$ . These devices were tested identically to those deposited at  $T = 140\text{ }^{\circ}\text{C}$ .

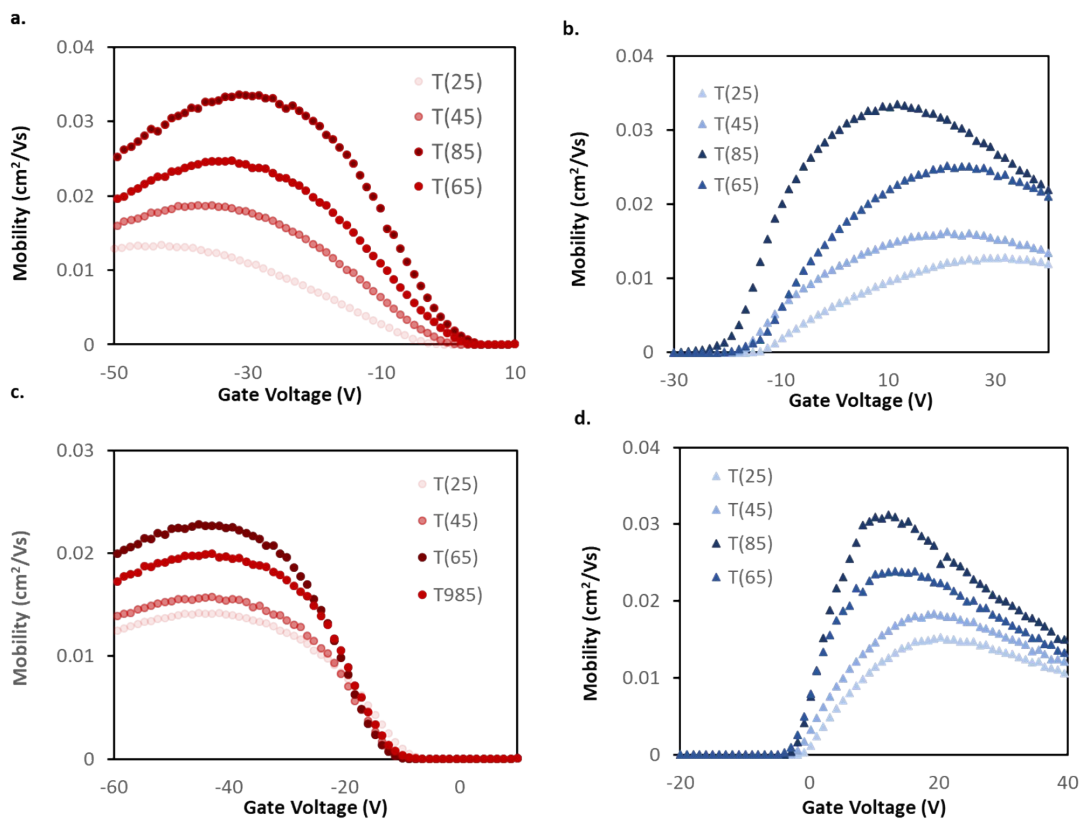


Figure S1. Field-effect mobility for (a,c) CuPc and (b,d) F16-CuPc devices deposited at  $T = 25\text{ }^{\circ}\text{C}$  with respect to applied gate-source voltage ( $V_{\text{GS}}$ ) for characteristic devices at varied temperatures in air (a, b) and vacuum (c, d). This mobility was calculated between adjacent points in the transfer data using equation 2

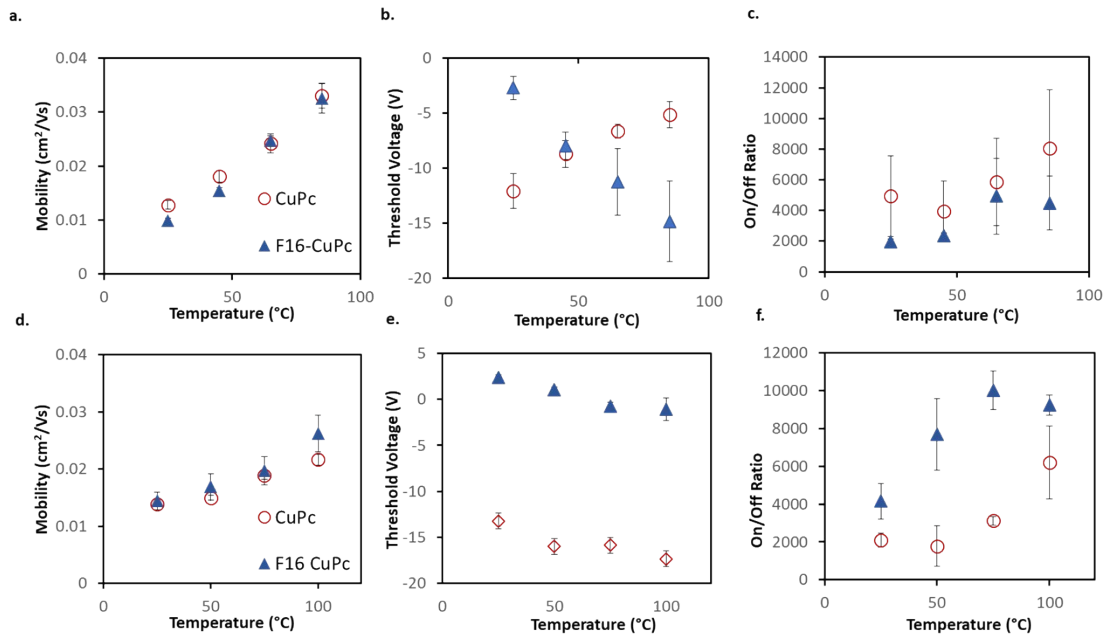


Figure S2. Performance of CuPc and F<sub>16</sub>-CuPc devices (deposited at T = 140 °C) in air at various temperatures. (a) Field-effect mobility. (b) Threshold voltage (V<sub>T</sub>). (c) on/off ratio. Presented are the averages for four devices with error bars representing the standard deviation. The legend in (a) is the same as in (b) and (c).