Supporting Information

Silver Nanowire Based Multifunctional Wearable Sensors

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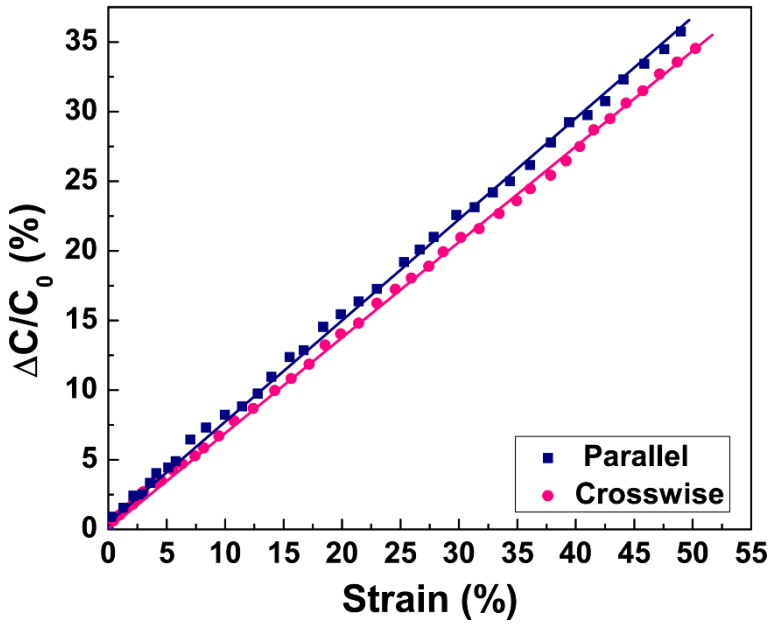

Figure S1. Comparison of relative capacitance changes between parallel and crosswise electrodes. The solid lines show the fitting results. It can be seen that the capacitance with parallel and crosswise electrodes exhibit similar gauge factors (0.73 for parrallel electrodes and 0.69 for crosswise electrodes).

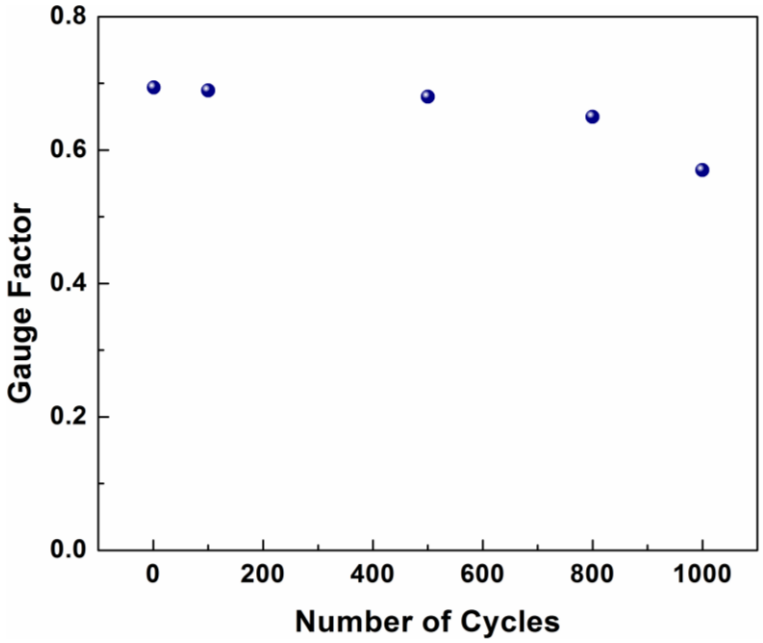

Figure S2. Gauge factors for strain sensing of for different cycles of stretching. The strain sensors are pretty stable during the first 500 cycles with a gauge factor of ~0.7. After 800 cycles and 1000 cycles, the gauge factor decreased to 0.65 and 0.57, respectively. Possible reasons include the irreversible sliding of Ag nanowires after repeatable stretching and the slightly local delamination of PDMS and the Ecoflex. Another factor that limits the durability is the possible leakage of the liquid metal and detachment of the copper wires from the liquid metal.

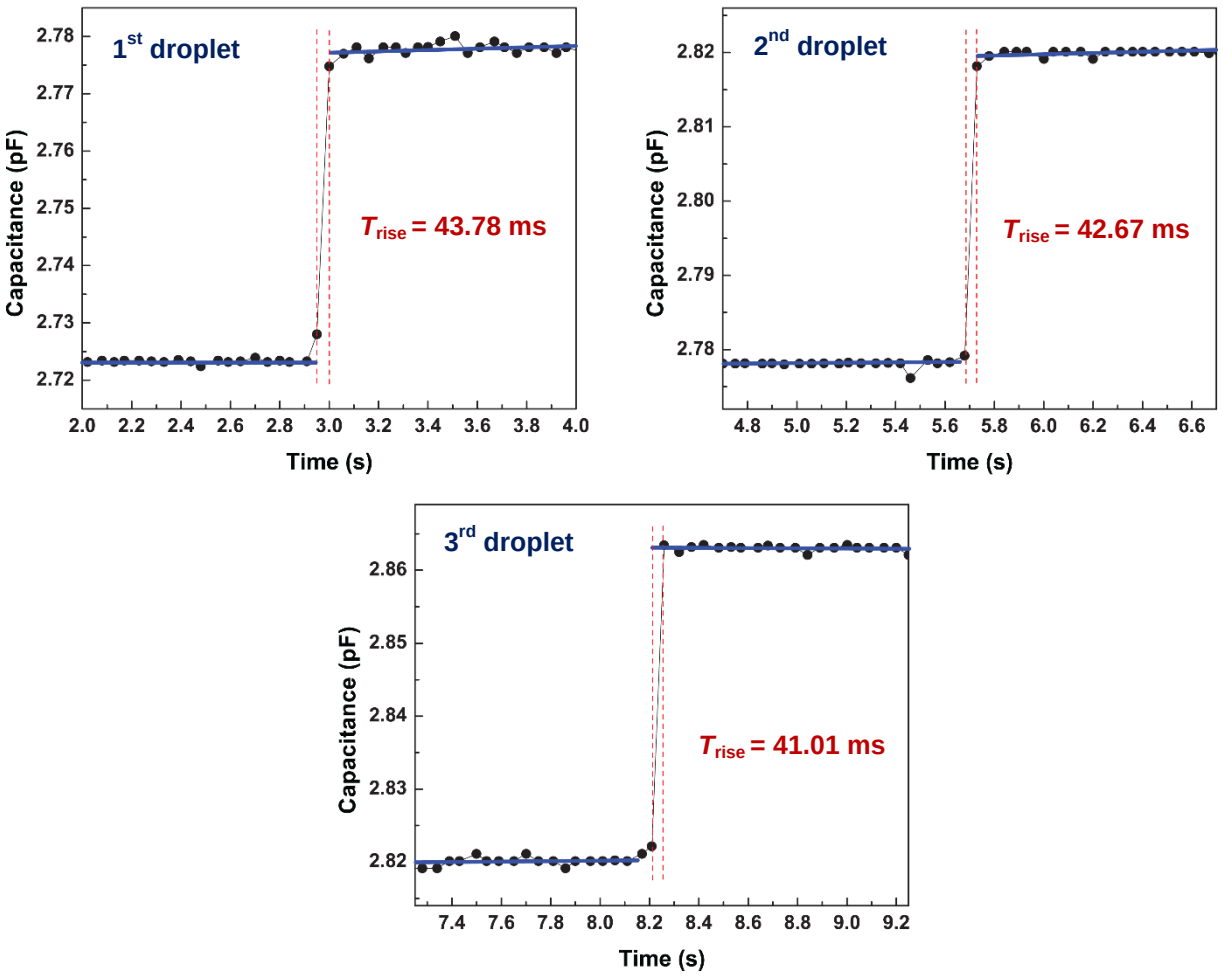

Figure S3. Plots showing the calculation of the response time. Here the response time (rise time) is defined as the time interval between 10% and 90% of the steady state values.