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Supplementary information

Self-powered triboelectric microfluidic system for liquid sensing

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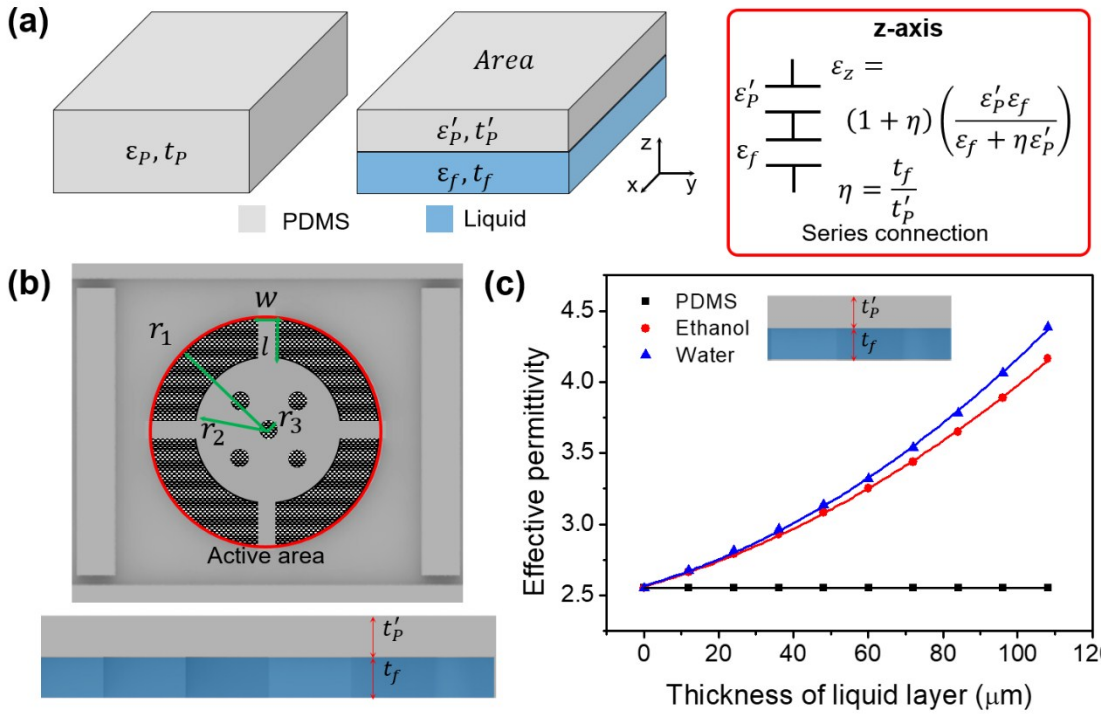

Figure S1. Calculation of effective permittivity. (a) Schematic of PDMS-fluid composite layer and connection types of permittivity. (b) Geometrical parameters to calculate effective thickness of PDMS layer. (c) Theoretical effective permittivity with various thickness of liquid layer.

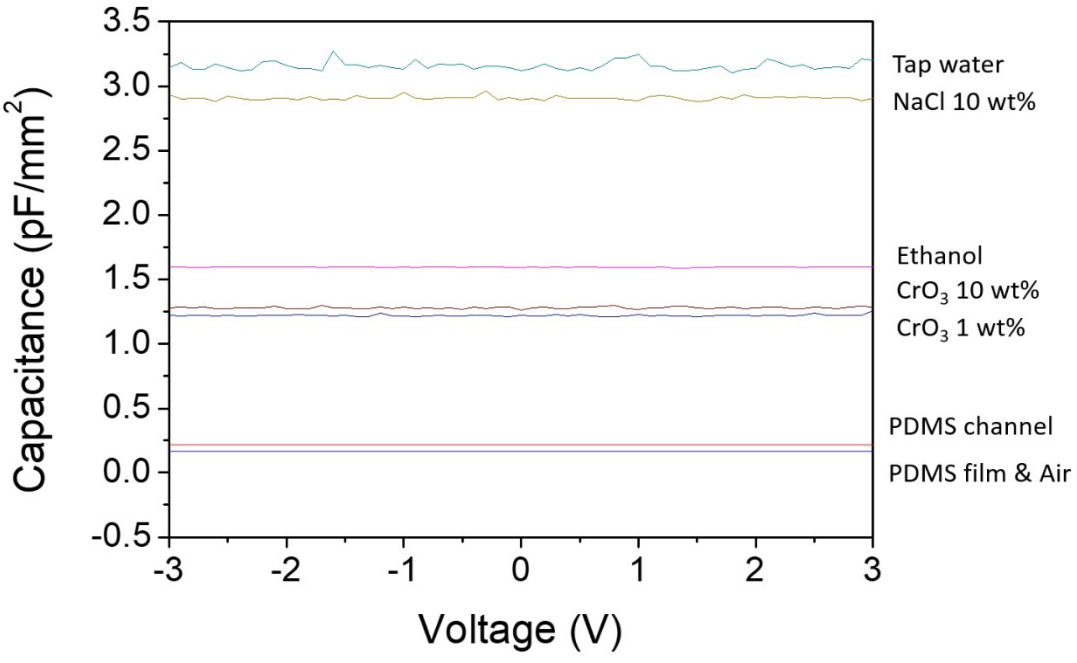

Figure S2. Measured capacitance of M-TENS with various liquids in microfluidic channel.

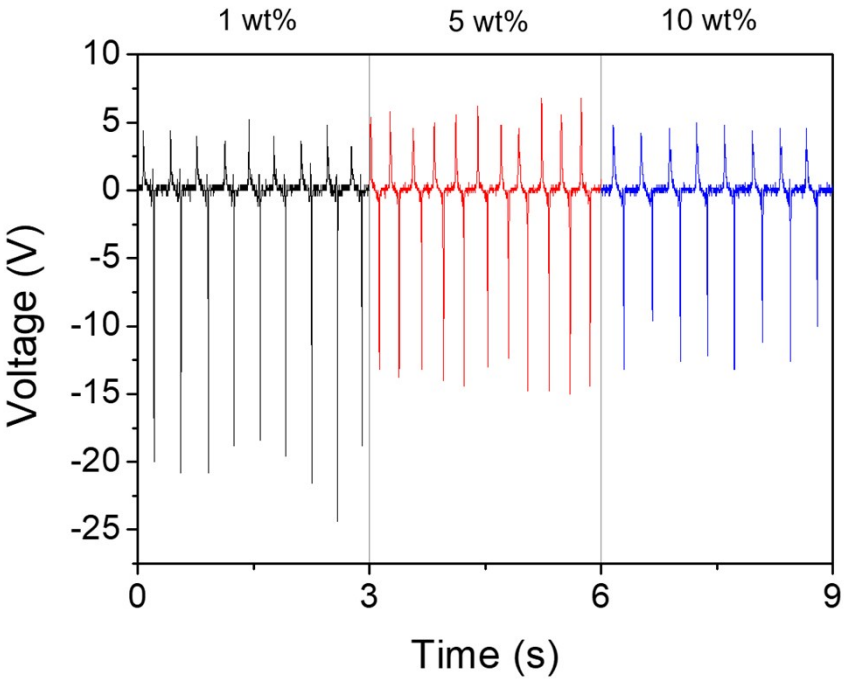

Figure S3. Measured voltage signals from different concentration of CrO_3 with finger driven M-TENS based on single electrode mode.