

Supporting Information

Influences of Surface and Ionic Properties on Electricity Generation of Active Transducer Driven by Water Motion

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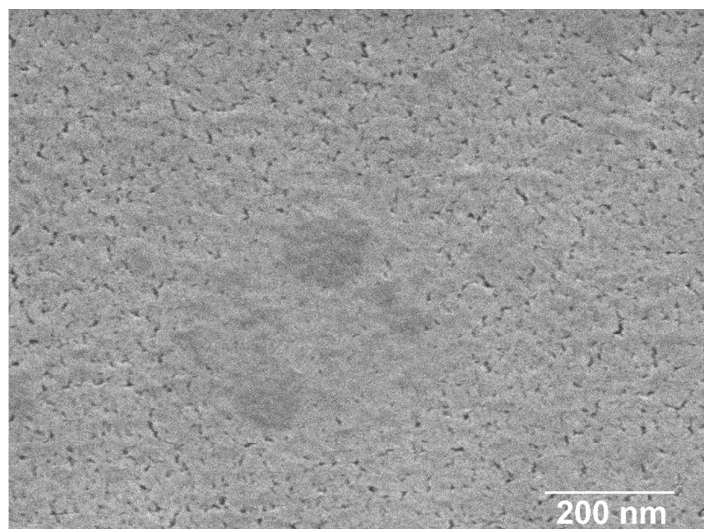


Figure S1. Top view SEM image of the active transducer (15.0kV, X100,000, WD 9.9 mm.)

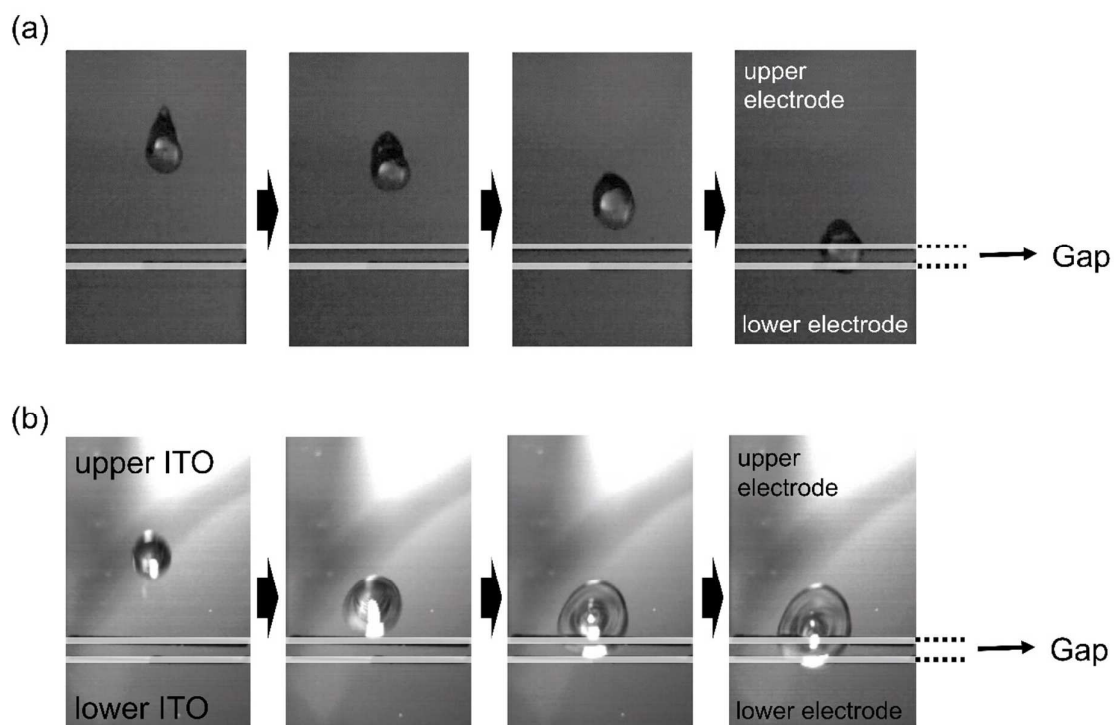


Figure S2. Captured images of high speed camera video. a) In this study, droplets used for active transducer dripped onto the upper parts of the upper electrode so that the droplets slid by the gap. b) Droplet had been dripped onto the substrate very close to the gap between electrodes.¹⁸

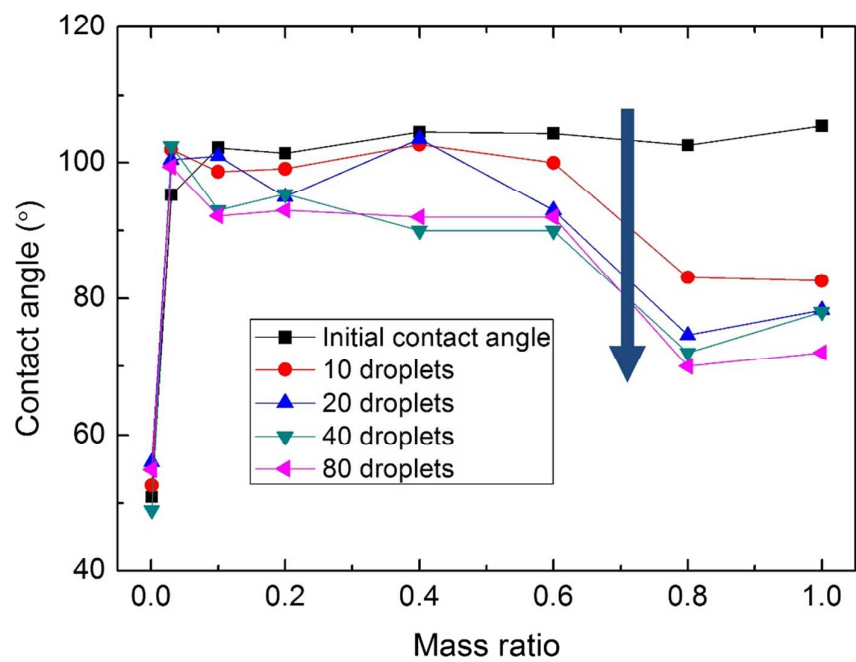


Figure S3. Measured contact angle of according to the POTS/TEOS mass ratio after several numbers of droplets flowed on the substrate. 0.01 M NaCl solution was used.

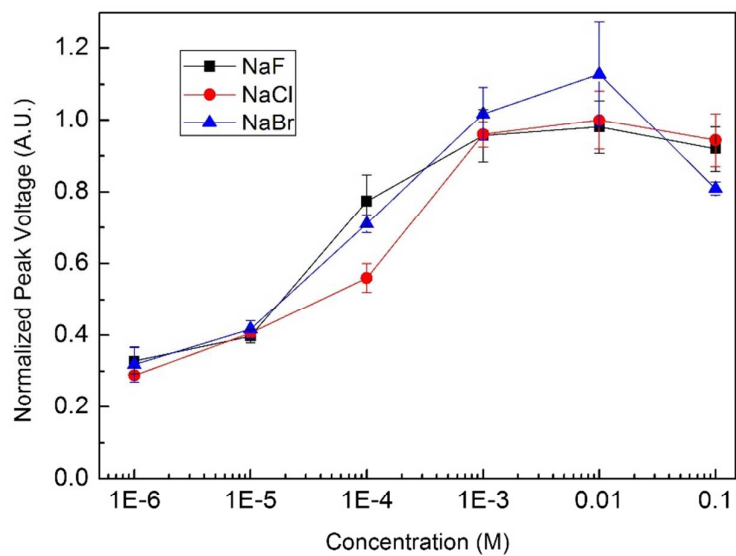


Figure S4. With sodium ion as cation, various halogen ions were used to investigate the effect of atomic number of anion. Falling height = 20 cm. POTS/TEOS mass ratio = 0.030. Measured voltage were normalized by the voltage using the 0.01 M NaCl solution droplets, which were used in Figure 1b.

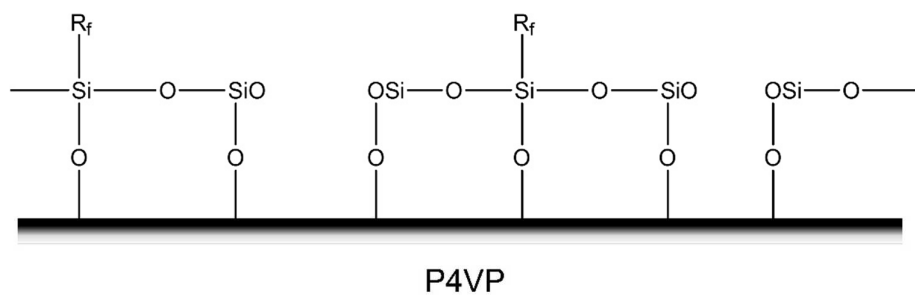


Figure S5. Schematic image of silica-gel film coated on P4VP