

Ag⁺ Interference from Ag/AgCl Wire Quasi-Reference Counter Electrode Inducing Corrosion Potential Shift in an Oil-Immersed Scanning Micropipette Contact Method Measurement

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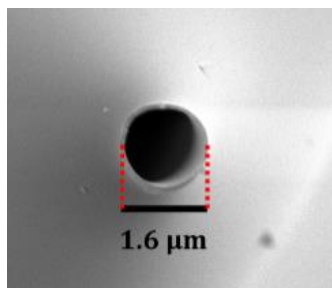


Figure S1. SEM image of the micropipette with a diameter of 1.6 μm .

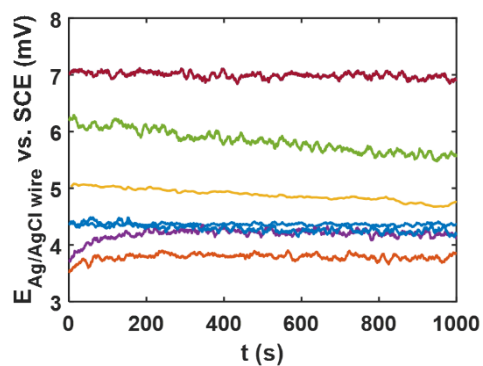


Figure S2. The open circuit potentials of eight Ag/AgCl wires were monitored for 1000 s in a 3.5 wt% NaCl aqueous solution versus SCE.

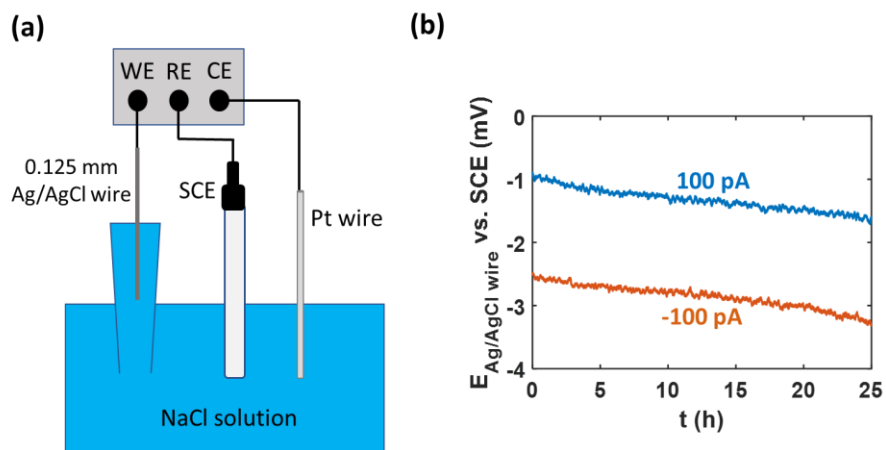


Figure S3. (a) Schematic of the electrochemical cell in a three-electrode configuration with a SCE as the RE and a Pt wire as the CE to monitor the potential of a 0.125 mm diameter Ag/AgCl wire (WE) in 3.5 wt % NaCl solution. (b) The potential of Ag/AgCl wire was recorded for 25 h via chronopotentiometry with 100 pA (blue) and -100 pA (orange) currents applied.

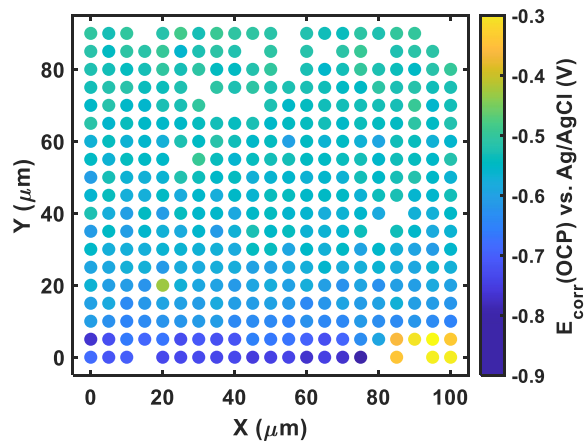


Figure S4. (a) OI-SMCM $E_{\text{corr}}(\text{OCP})$ map of the scanned area showed in Figure 2d.

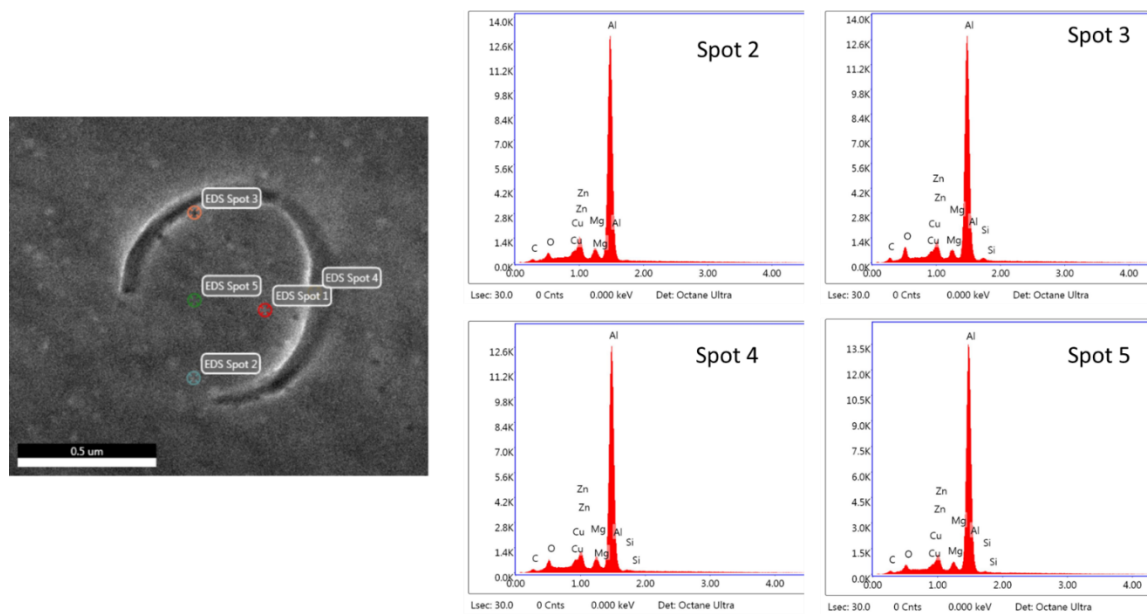


Figure S5. EDS point analyses of the sites on the landing surface in the yellow box of Figure 2d. The spectrum of spot 1 is shown in Figure 2e.

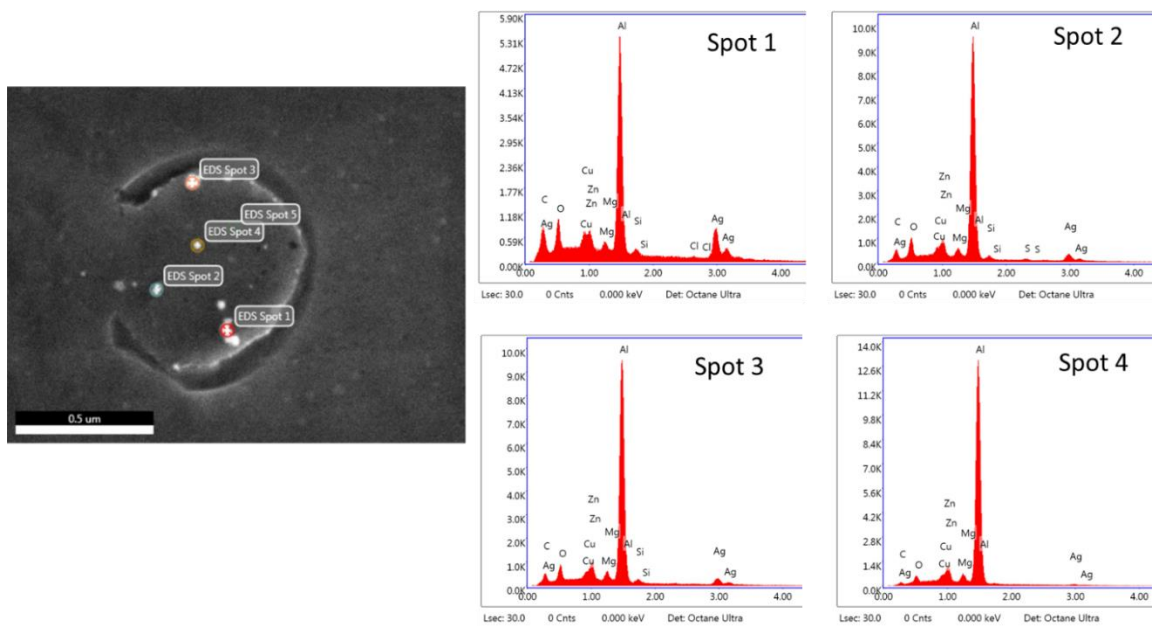


Figure S6. EDS point analyses of the precipitates on the landing surface in the green box of Figure 2d.

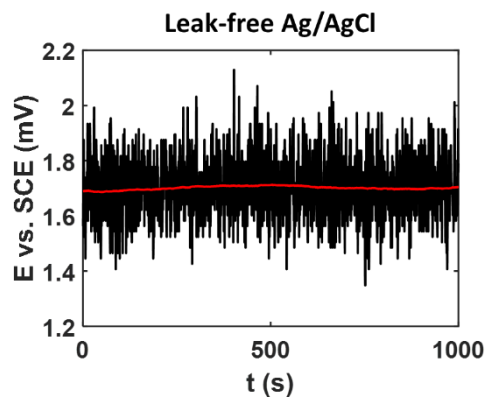


Figure S7. The potential of leak-free Ag/AgCl electrode was measured versus a SCE in a 3.5 wt% NaCl solution via OCP mode for 1000 s. Black trace: raw data, red trace: 500-point averaged data.