

Supporting Information

Regulating the growth of aluminum electrodeposits: towards anode-free Al batteries

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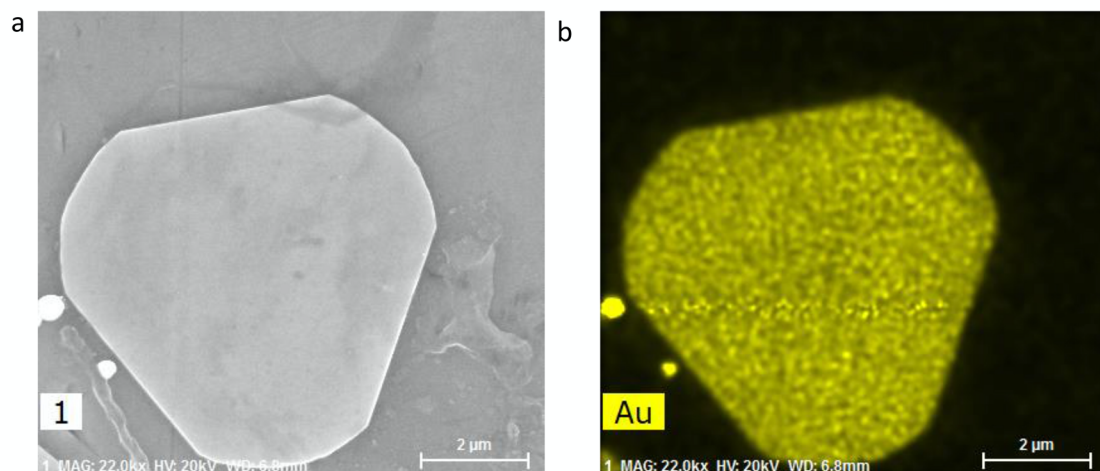


Figure S1. a) SEM and b) corresponding EDX Au mapping of prepared Au nanosheets.

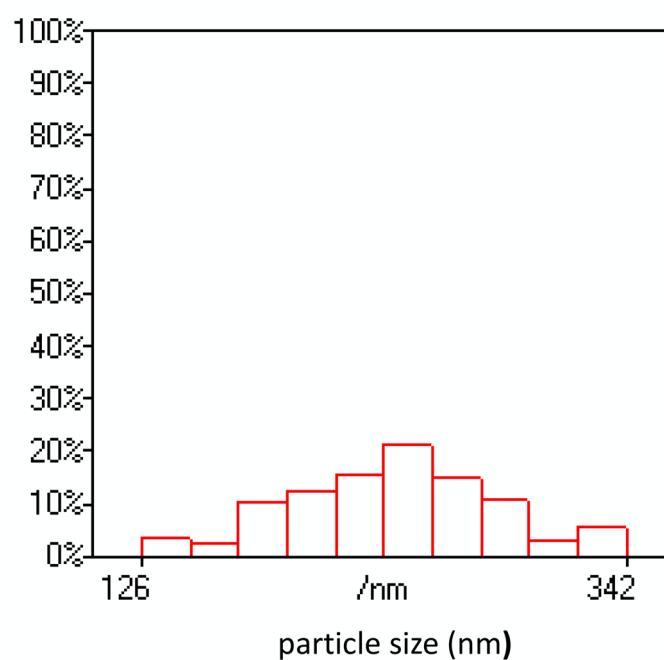


Figure S2. Size distributions of Al nanoparticles deposited on Au nanosheets.

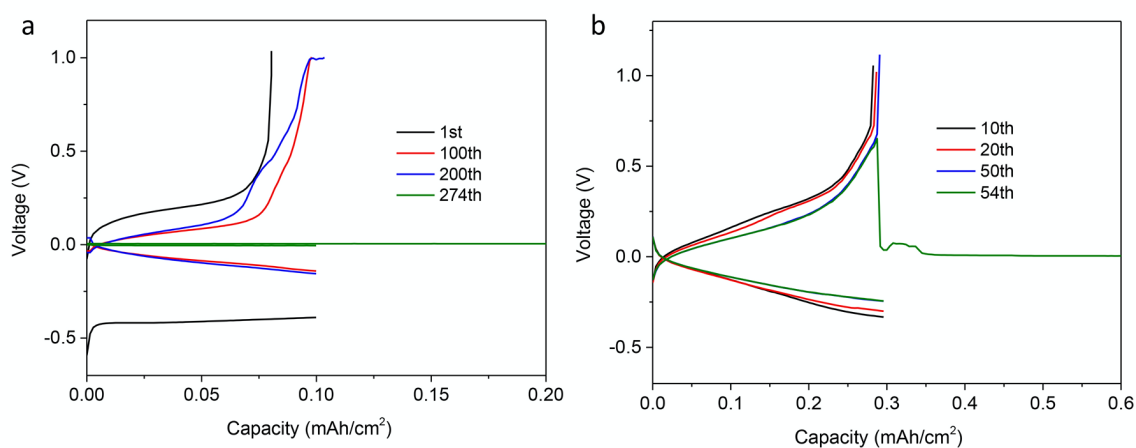


Figure S3. Al plating and stripping profiles in Al//SS electrochemical cells. a) 1mA/cm² b) 3mA/cm².

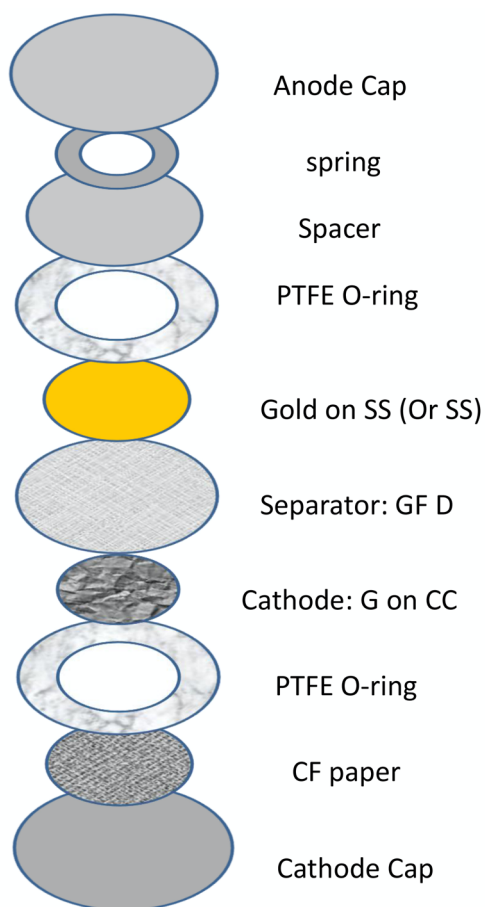


Figure S4. Structure of a coin type dual-ion Al battery.

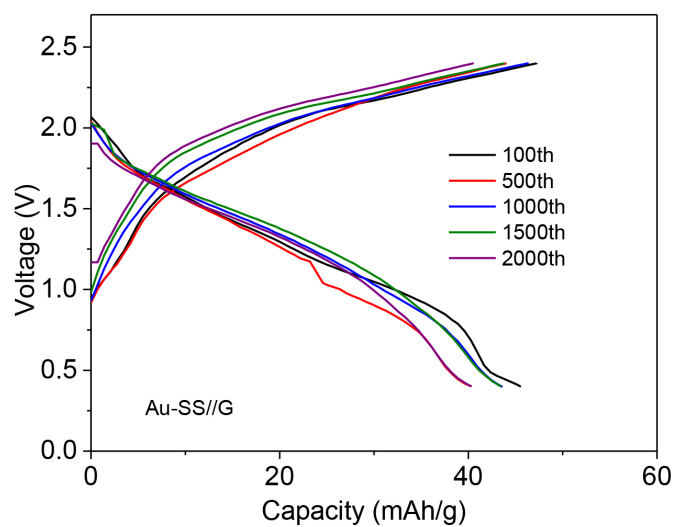


Figure S5. Charge/Discharge profiles of Au-SS//G batteries at 100th, 500th, 1000th, 1500th, and 2000th cycle.

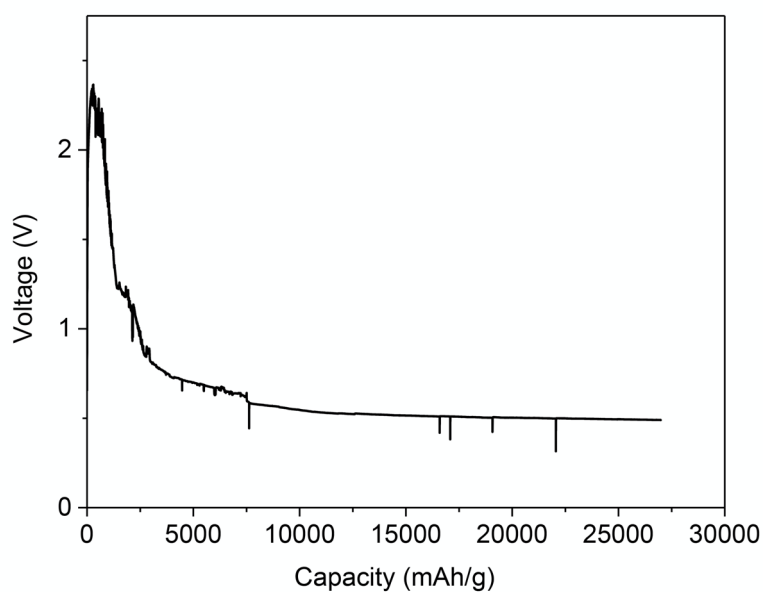


Figure S6. Typical failure profiles of Al//G batteries and SS//G batteries.

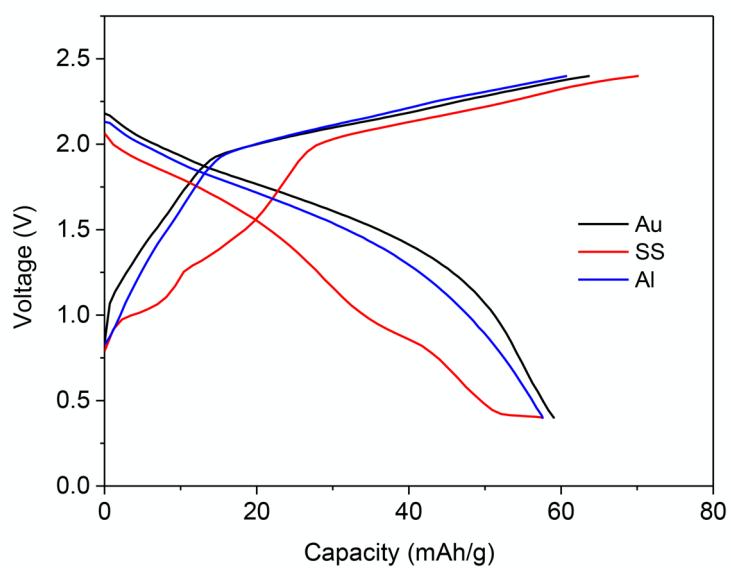


Figure S7. Polarization comparisons of Au-SS//G batteries, SS//G batteries and Al//G batteries. The profiles are the fifth cycle of the batteries.