

Supplementary Information

“Water-in-salt” electrolytes enable the use of cost-effective aluminum current collectors for aqueous high-voltage batteries

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Table S1 Electrochemical stability window of 1m and 21m aqueous LiTFSI solutions on gold electrodes determined by linear sweep voltammetry at a scan rate of 10 mV s⁻¹ at room temperature.

Threshold current density (mA cm ⁻²)	Electrochemical stability window (V)	
	1m LiTFSI	21m LiTFSI
0.05	1.4	2.2
0.1	1.8	2.5
0.25	2.3	3.0
0.5	2.5	3.1
1	2.7	3.2

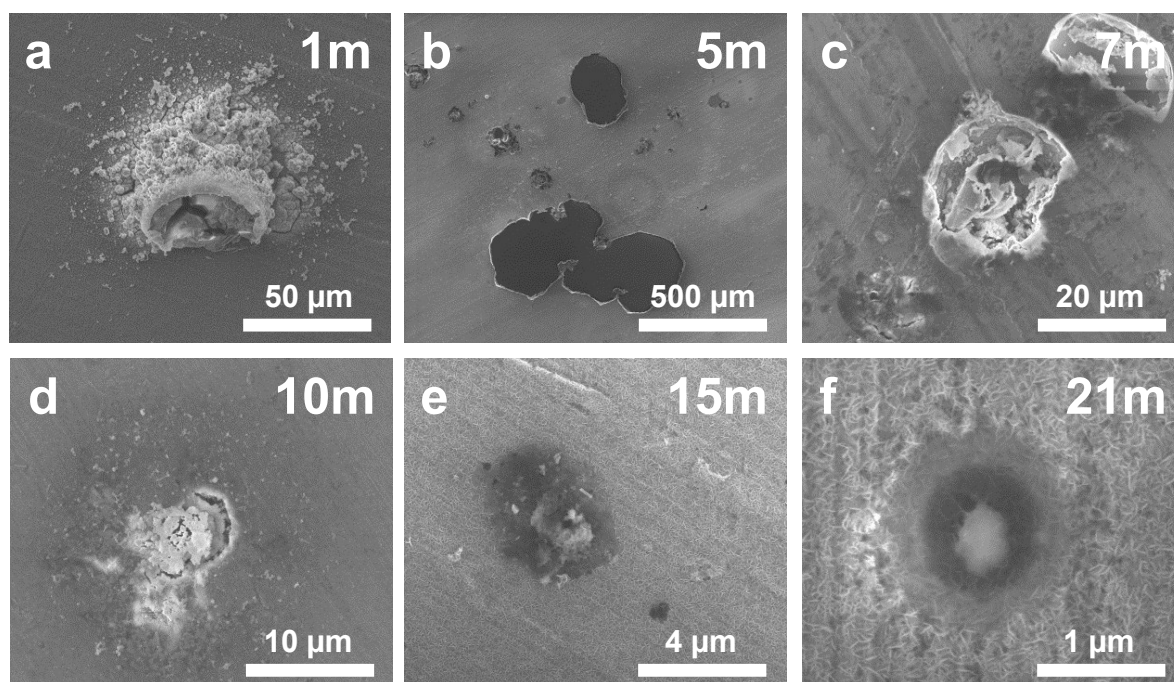


Fig. S1 SEM images of Al electrodes polarized in aqueous LiTFSI solutions of various concentrations at 4.8 V vs. Li/Li⁺ for 10 h (see Fig. 2d for the electrochemical data). The electrodes were relaxed for 1 min after every 9 min of polarization to reduce transport limitations. The SEM images were taken with a FEI NovaNanoSEM 230 after rinsing the electrodes with deionized water. The images illustrate the typical maximum pit diameter observed for the different LiTFSI concentrations.