

Supplementary Information

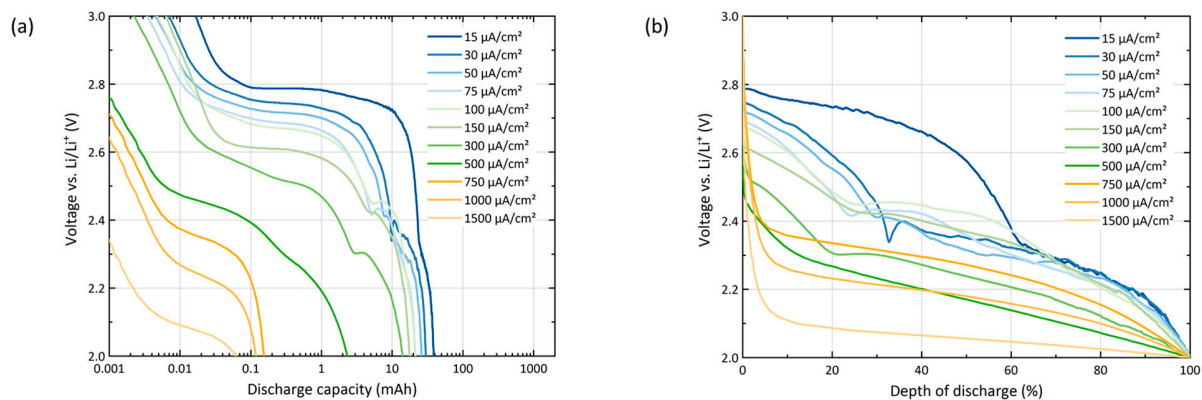


Figure S1: (a) Logarithmic representation and (b) normalized discharge profiles of GNS-foam electrodes with current densities between 15 $\mu\text{A}/\text{cm}^2$ and 1.5 mA/cm^2 .

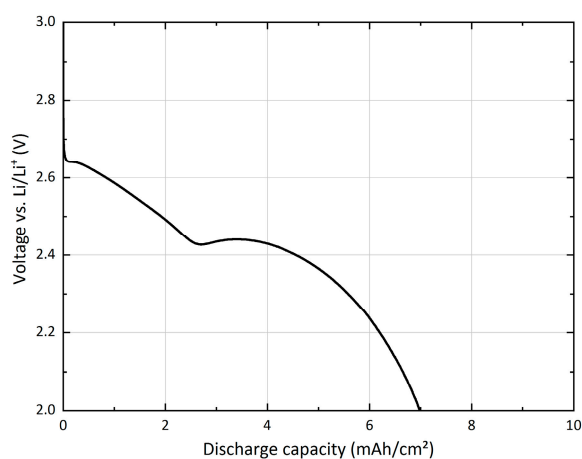


Figure S2: Discharge profile of a GNS-foam electrode at 150 $\mu\text{A}/\text{cm}^2$ and an oxygen pressure of 11 atm.

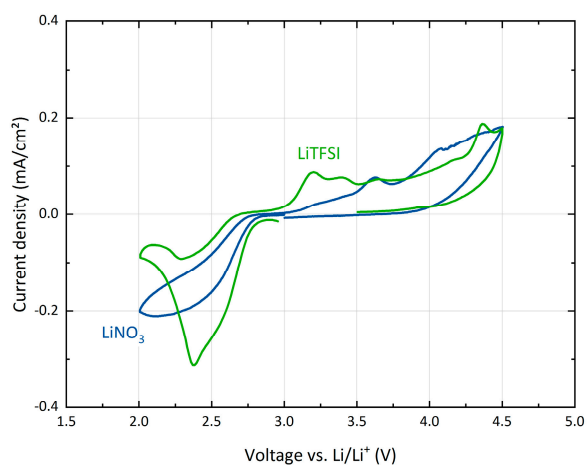


Figure S3: Cyclic voltammetry $j(U)$ profile for Li-O₂ cells with GNS-foam electrodes in combination with 200 μ L of either 1.0 M LiTFSI or 0.5 M LiNO₃ in TEGDME as electrolyte. The CV measurements are carried out with a Zahner IM6 potentiostat. The sweep rate is 100 μ V/s and tests start with a negative sweep from the equilibrium potential of the cell (\approx 3 V).

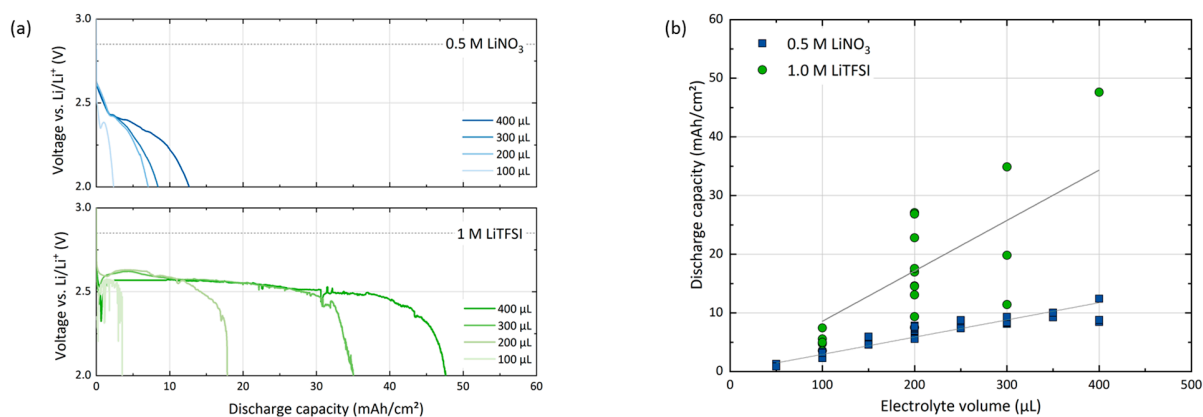


Figure S4: Effects of the electrolyte volume (100 μ L – 400 μ L) on the discharge capacity of GNS-foam electrodes.

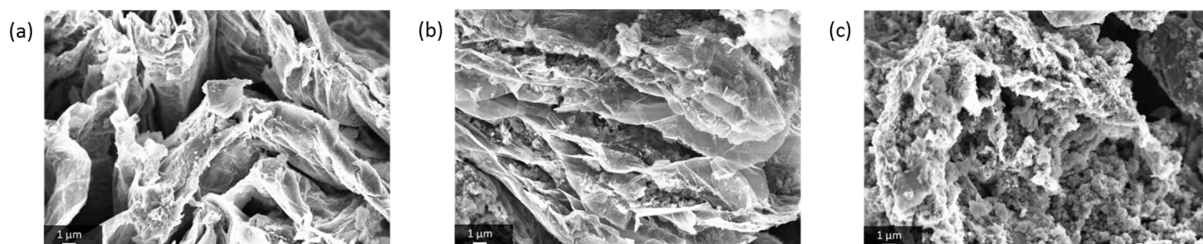


Figure S5: Three GNS-foam electrodes were stacked in a single cell and discharged to 56.2 mAh/cm². The figure shows the SEM images of GNS from the top (a), middle (b) and bottom (c) electrode.