

ARTICLE

Exploring the Impact of Lithium Halide-based Redox Mediators in Suppressing CO₂ Evolution in Li-O₂ Cells

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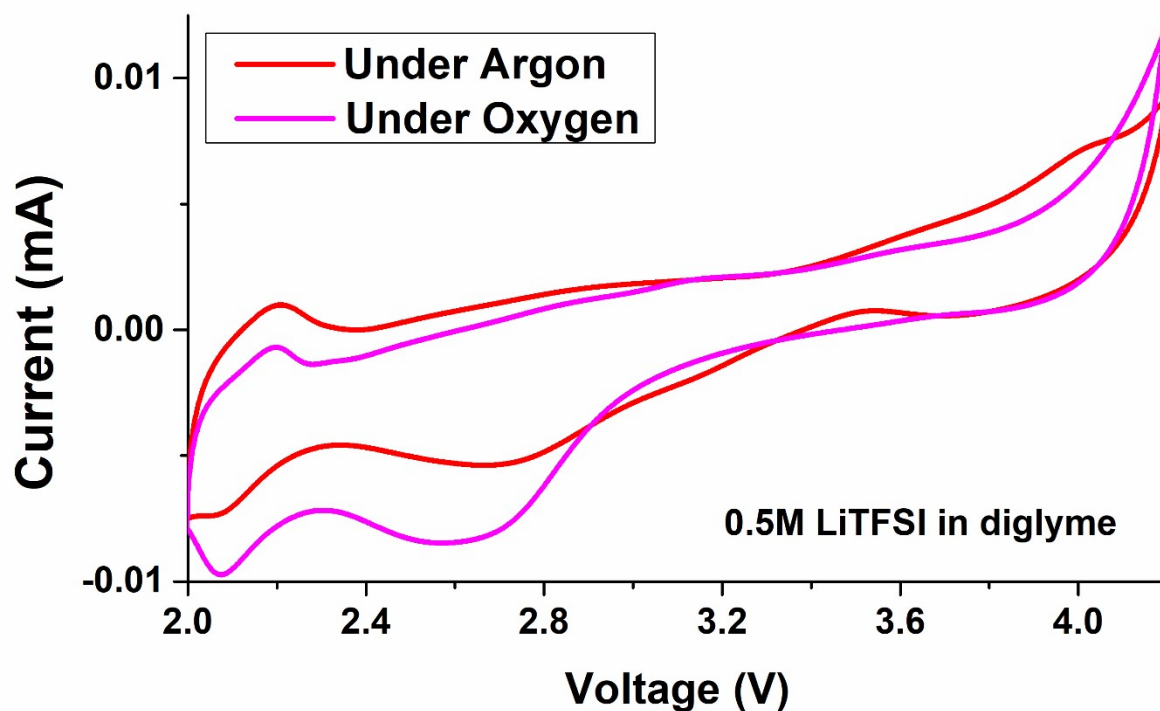


Figure S1. Cyclic voltammetry (5 mV s^{-1}) on Pt working electrode under argon atmosphere and oxygen atmosphere for 0.5M LiTFSI in diglyme.

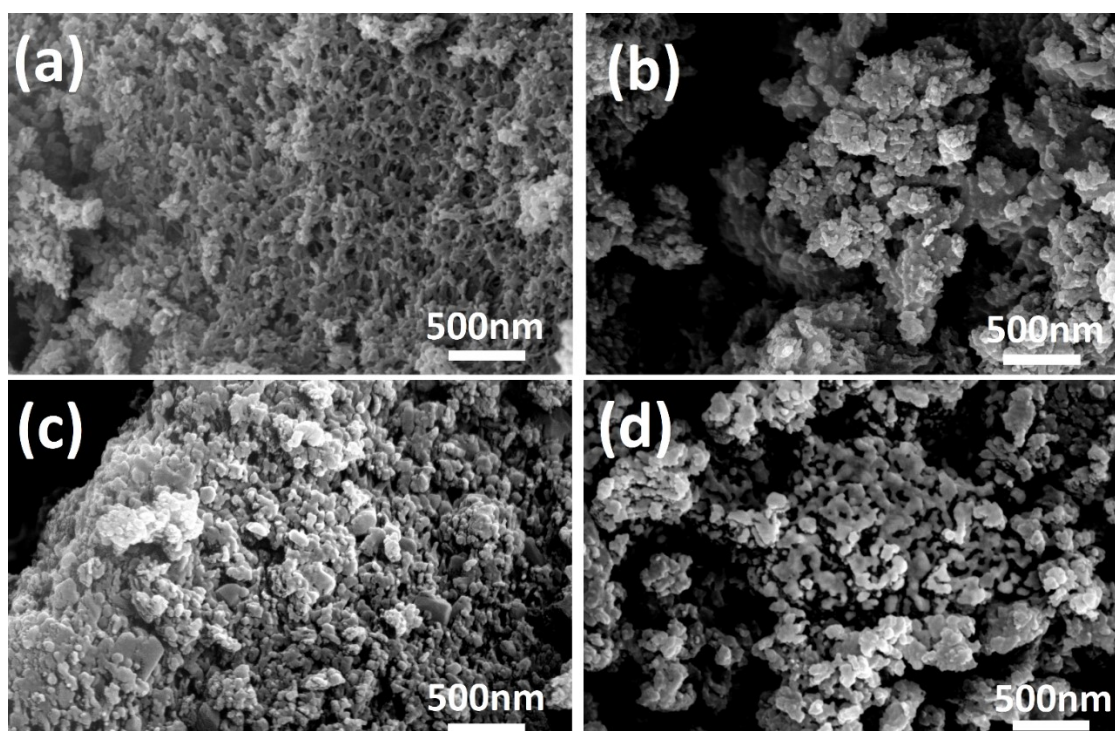


Figure S2. HRSEM images of a) Pristine carbon paper, lithium oxide deposits on the carbon paper after ~ 30 hours discharge b) 0.5M LiTFSI c) 50mM LiBr in 0.5M LiTFSI, d) 50mM LiI in 0.5M LiTFSI in diglyme electrolytes.

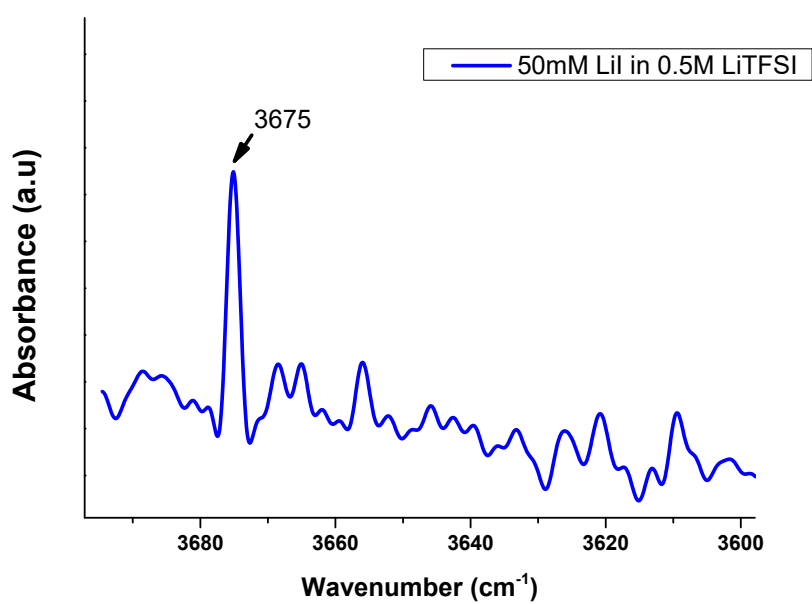


Figure S3. ATR-FTIR spectra representing -OH vibrational band at 3675cm^{-1} indicating the formation of LiOH in case of 50mM LiI in 0.5M LiTFSI in diglyme solution.

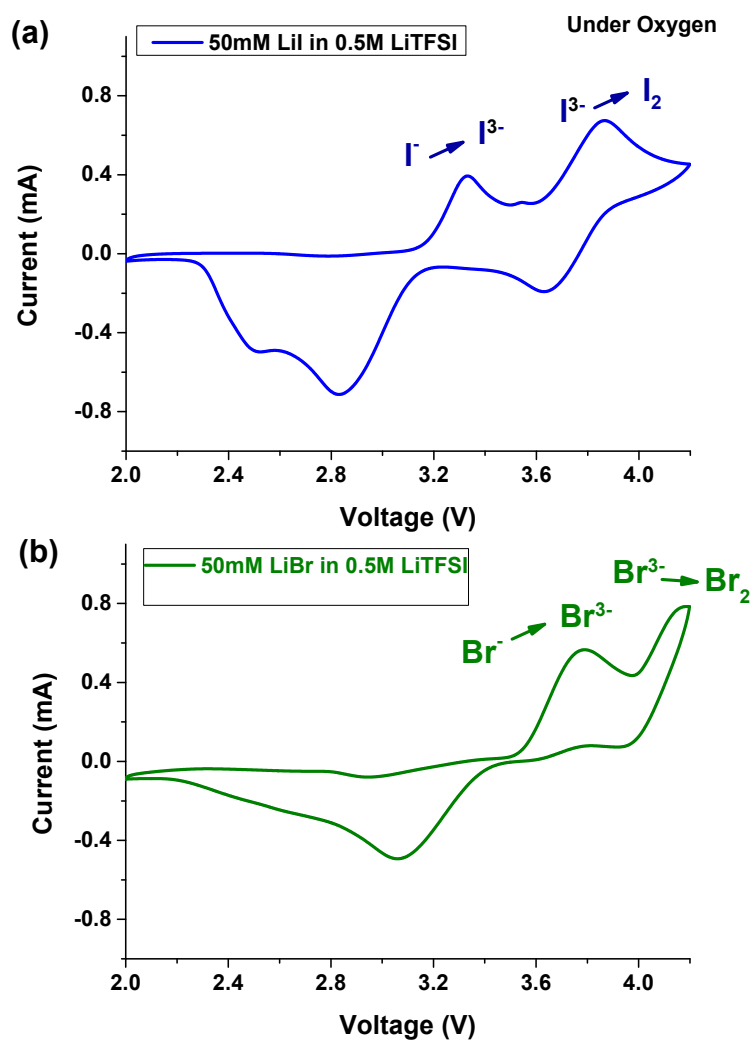


Figure S4. Cyclic voltammetry (5 mV s^{-1}) on Pt working electrode under oxygen atmosphere for (a) 50mM LiI in 0.5M LiTFSI and (b) 50mM LiBr in 0.5M LiTFSI in diglyme electrolyte.