## **Supporting Information**

## In-situ Fabrication of Porous-Carbon-Supported $\alpha$ -MnO $_2$ Nanorods at Room Temperature: Application for Rechargeable Li-O $_2$ Battery

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## Electrochemical performance of Sample 2 (50% MnO<sub>2</sub> on carbon):

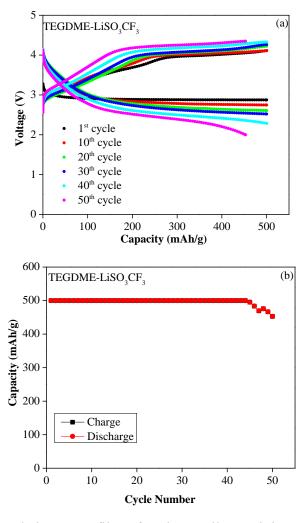


Figure S1. (a) Discharge and charge profiles of a Li-O<sub>2</sub> cell containing 50% MnO<sub>2</sub> in carbon matrix using TEGDME/ LiCF<sub>3</sub>SO<sub>3</sub> electrolyte between 2.2 and 4.3 V versus Li/Li<sup>+</sup> with limited capacity of 500 mAh/g at a constant current density of 100 mA/g (carbon catalyst); (b) Cyclability of the same cell shown in (a).