Supporting Information

Significantly Improved Cyclability of Lithium Manganese Oxide with Inhibiting Simultaneously Electrochemical and Thermal Decompositions of Electrolyte by Additive

Bo Liao[a], Hongying Li,[a] Xianshu Wang,[a] Mengqing Xu,[ab] Lidan Xing,[ab] Youhao Liao,[a,b] Xiang Liu, [*ab] and Weishan Li,[*ab]

[a] School of Chemistry and Environment, South China Normal University, Guangzhou 510006, China

[b] Engineering Research Center of MTEES (Ministry of Education), Research Center of BMET (Guangdong Province), Engineering Lab. of OFMHEB (Guangdong Province), Key Lab. of ETESPG (GHEI), and Innovative Platform for ITBMD (Guangzhou Municipality), South China Normal University, Guangzhou 510006, China

[*] Corresponding author: School of Chemistry and Environment, South China Normal University, Guangzhou, 510006, China. E-mail address: iamxliu@njtech.edu.cn (X. Liu); liwsh@scnu.edu.cn (W. Li)

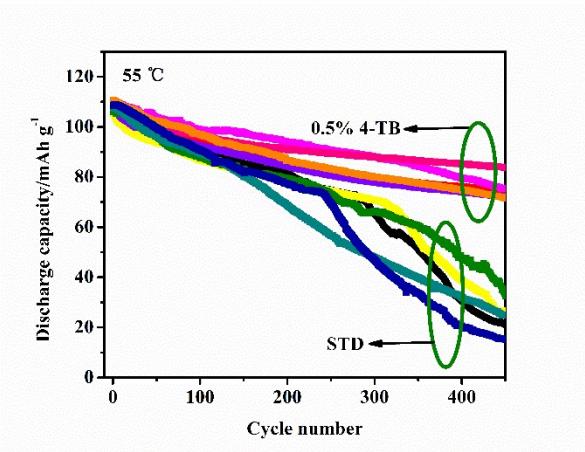

Fig. S1. Cyclability of Li/$LiMn_2O_4$ cells in electrolytes with and without 0.5% 4-TB at 1 C under 55 °C, with five samples for each cell.

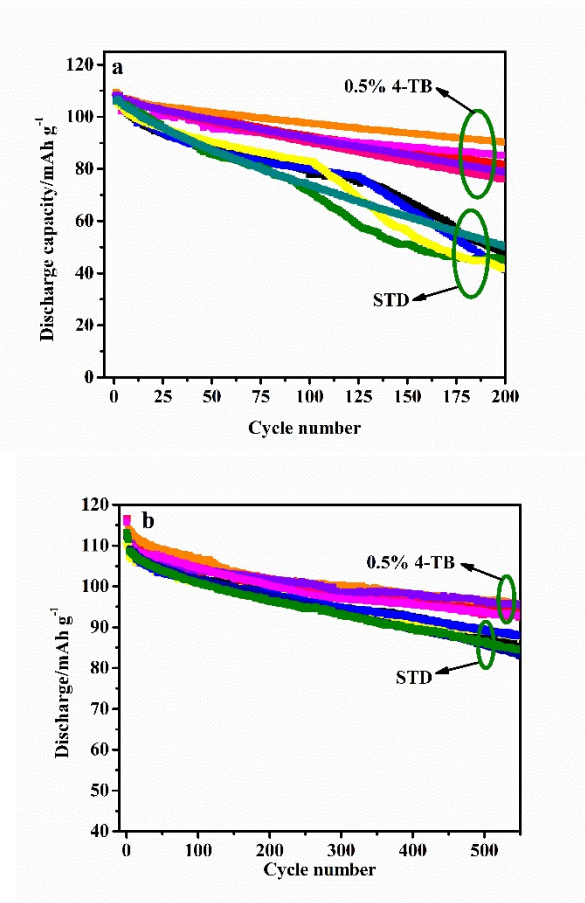

Fig. S2. Cyclability of Li/$LiMn_2O_4$ cells at 0.5 C for the first three cycles and at 1 C for the subsequent cycles under 25 °C, using the electrolytes after (a) and before (b) storage, with five samples for each cell.