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Supporting Information

The study of the synergistic effect between oxysilane and phosphite-

based flame retardant additive and its application in lithium-ion

batteries

YuChao Chen^a, Jin Liang^{a*}, and Jiang Cao^b

^a Central South University of Forestry and Technology, Changsha 410004, China

^b Dongguan Deli New Energy Materials Co., Ltd, Dongguan 523542, China

*Corresponding author: <u>ljcfstu@163.com</u>

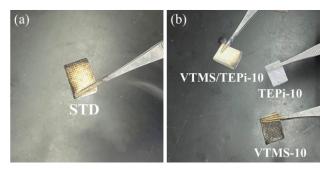


Figure S1 Photographs of fiberglass papers containing (a) standard electrolytes and (b) standard electrolytes with different additives (10 wt. %) after combustion



Video S1 Self-extinguishing test about standard electrolyte



Video S2 Self-extinguishing test about standard electrolytes containing different additives (10 wt.%)

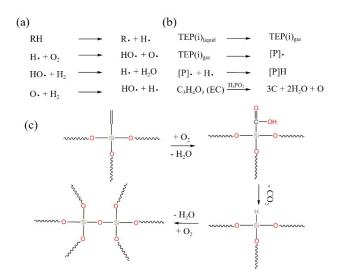


Figure S2 Illustrative depiction of the combustion process and mechanism of flame retardation (a) combustion process flame retardant mechanism of (b) phosphate ester; (c) Organosilicon

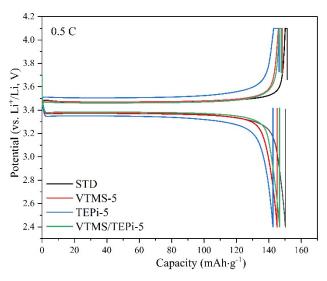


Figure S3 The electrochemical performance of Li|LiFePO₄ half cells with different additives at 0.5

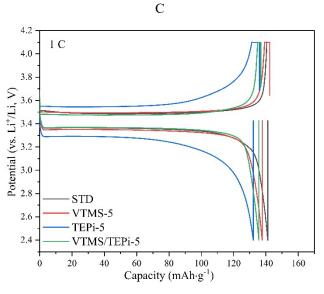


Figure S4 The electrochemical performance of Li|LiFePO₄ half cells with different additives at 1

С

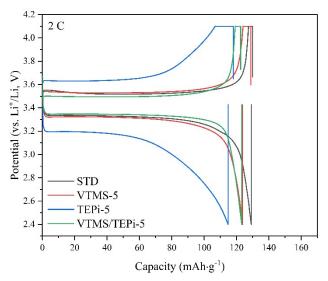


Figure S5 The electrochemical performance of Li|LiFePO₄ half cells with different additives at 2

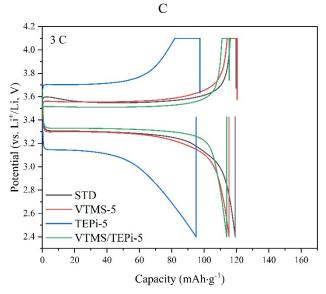


Figure S6 The electrochemical performance of Li|LiFePO₄ half cells with different additives at 3 C

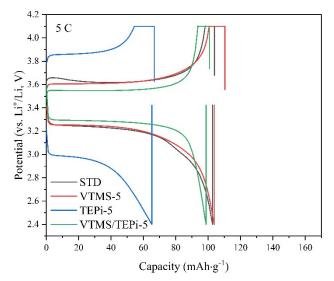


Figure S7 The electrochemical performance of $\text{Li}|\text{LiFePO}_4$ half cells with different additives at 5

С

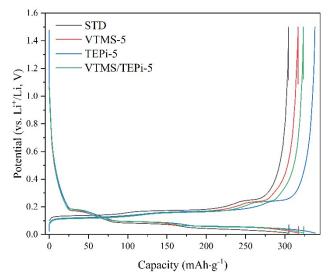


Figure S8 The electrochemical performance of Li|GP half cells in electrolytes with different additives at 0.5 C (25^{th} cycle)