Important Role of Lithium Salt Anion on the Electrode/Electrolyte Interfacial Stability

Lidan Xing, Weishan Li

School of Chemistry and Environment, South China Normal University, Guangzhou 510006, China
E-mail: xingld@scnu.edu.cn

Development of next generation lithium ion battery with high energy density, long cycle life and great safety is urgently needed to satisfy the demand of electric vehicles (EVs). The interphase siting between electrode and electrolyte is critical to the cycle life and safety of lithium ion battery. Oxidation and reduction decomposition products of electrolyte deposit on the electrode surface, which may generate a protective film, known as solid electrolyte interphase (SEI) film, to passive the highly charged electrode surface or lead to endless decomposition of electrolyte. This presentation will reveal the important role of salt anion on the oxidation and reduction mechanism of electrolyte and its corresponding decomposition product [1,2,3].

References:

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