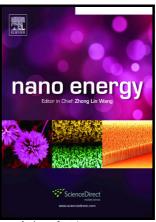
Author's Accepted Manuscript

Unveil the mechanism of solid electrolyte interphase on Na₃V₂(PO₄)₃ formed by a novel NaPF₆/BMITFSI ionic liquid electrolyte

Feng Wu, Na Zhu, Ying Bai, Yu Li, Zhaohua Wang, Qiao Ni, Huali Wang, Chuan Wu



www.elsevier.com/locate/nanoenergy

PII: S2211-2855(18)30484-1

DOI: https://doi.org/10.1016/j.nanoen.2018.07.003

Reference: NANOEN2870

To appear in: Nano Energy

Received date: 9 April 2018 Revised date: 1 July 2018 Accepted date: 2 July 2018

Cite this article as: Feng Wu, Na Zhu, Ying Bai, Yu Li, Zhaohua Wang, Qiao Ni, Huali Wang and Chuan Wu, Unveil the mechanism of solid electrolyte interphase on Na₃V₂(PO₄)₃ formed by a novel NaPF₆/BMITFSI ionic liquid electrolyte, *Nano Energy*, https://doi.org/10.1016/j.nanoen.2018.07.003

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting galley proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Unveil the mechanism of solid electrolyte interphase on $Na_3V_2(PO_4)_3$ formed by a novel $NaPF_6/BMITFSI$ ionic liquid electrolyte

Feng Wu^{a,b}, Na Zhu^a, Ying Bai^{a,*}, Yu Li^a, Zhaohua Wang^a, Qiao Ni^a, Huali Wang^a, Chuan Wu^{a,b,*}

^aBeijing Key Laboratory of Environmental Science and Engineering, School of Materials Science and Engineering, Beijing Institute of Technology, Beijing 100081, PR China

^bCollaborative Innovation Center of Electric Vehicles in Beijing, Beijing 100081, PR China

*Corresponding author: Phone: (+86)-10-68912528. E-mail:

membrane@bit.edu..cn(Y.B.).

*Corresponding author: Phone: (+86)-10-68912657. E-mail:

chuanwu@bit.edu.cn(C.W.).

ABSTRACT:

Sodium-ion batteries (SIBs) are gaining more attentions due to their potentials to achieve large scale energy storage coupled with relatively low cost. However, typically used organic electrolytes with high flammability and poor thermal stability have impeded the further developments for SIBs in large-scale energy storage. Ionic liquids (ILs), featuring excellent thermal stability, non-flammability and wide electrochemical window have been promising alternative electrolytes for SIBs. Herein, rechargeable $Na/Na_3V_2(PO_4)_3$ cells with $NaPF_6$ -incorporated 1-butyl-3-methylimidazolium bis (trifluoromethanesulfonyl) imide BMITFSI IL electrolyte are demonstrated to reduce the flammability of the electrolyte and

Download English Version:

https://daneshyari.com/en/article/7952346

Download Persian Version:

https://daneshyari.com/article/7952346

<u>Daneshyari.com</u>