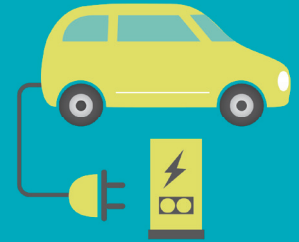


# All Solid State Batteries : Review of issues and opportunities.

言語 / 英語 Language/English

Friday, **Oct 18**, 2019, 10:00-11:00



東京農工大学 小金井キャンパス 次世代キャパシタ研究センター 2階多目的ホール  
Multipurpose Hall, 2F, Research Center for Next Generation Capacitor, Koganei Campus, TUAT



## Dr. Patrick Rozier

University of Toulouse III - Paul Sabatier, CIRIMAT UMR CNRS 5085  
Réseau sur le Stockage Electrochimie de l' Energie, FR CNRS 3459  
France

Since the announcement by Toyota, that within few years all electrical vehicles should be equipped with All Solid State Batteries, a huge renewal of research targeting efficient systems has been observed. The interest in developing such ASSB is to address two main issues of the currently used liquid based systems. The replacement of organic liquid electrolyte by solid state one is expected to solve the safety issue observed during the use or storage of LIBs while the use of thick dense electrode is expected to enhance the energy density of the systems. However, the development of efficient ASSB is hindered by several bottlenecks related to several scientific domains starting from selection of optimized materials for their specific properties such as ionic conductivity, chemical and electrochemical stability of the different components (lithium/electrolyte; electrolyte/active materials/electronic conductor additives) during their assembling, way to ensure a good electronic/ionic contact between the respective components and mechanical integrity of the full cell during the functioning. This presentation aims at summarizing main achievement in the development of ASSB starting with proposed solid state electrolytes. Based on that the solution envisaged to preserve the chemical stability during the assembling of both composite electrode and half cells will be reviewed. Once detailed all the issues already known in the assembly of full ASSB, the one associated to the functioning of this type of battery will be presented.

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### ■お問合せ先 / Contact

グローバルイノベーション研究院 工学研究院 岩間悦郎  
Institute of Global Innovation Research, Institute of Engineering  
Associate Professor Etsuro Iwama  
e-mail: iwama (ここに @ を入れてください) cc.tuat.ac.jp



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Everyone is welcome to attend.