

School Seminar (2015-9)

School of Materials Science & Engineering

“Graphene as a versatile component in lithium ion batteries”

[Prof. Pyo, Myounggho](#)

(Dept. of Printed Electronic Engineering, Sunchon Nat. Univ.)

2015. 04. 03. (Fri.) 11:00

APRI 1F, Auditorium Hall

Graphene as a versatile component in lithium ion batteries

Pyo, Myounggho

Department of Printed Electronic Engineering,
Sunchon National University, Suncheon, Republic of Korea

The utilization of graphene (or graphene oxide) as an effective ingredient to solve various problems occurred in lithium ion batteries (LIBs) will be mainly presented. This talk will be classified into

- (1) Use of graphene as a corrosion inhibitor of Al current collector
- (2) SEI control in high voltage cathode material
- (3) Graphene framework as a buffer in SnO₂ anodes
- (4) Enhancement of dimensional stability of SnO₂ (and CoO) via self-assembled graphene stacks.

If time is available, the data-mining results of layer and spinel cathodes to identify critical parameters governing the energy density will also be discussed.