

The 96th GREEN Seminar



Computer Simulation Technology for Design of Electrode Structure

Chair: Dr. Toshihiko Mandai (GREEN)

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In order to apply secondary battery simulation models for the design of optimal electrode, we have to focus on the heterogeneous structure and dynamic structure change. In this talk, I will introduce our various simulation models as follows:

- Evaluation of effective ionic conductivity from 3D reconstruction image
- Simulation of electrochemical reaction and mass transport with the effect of volume expansion
- Simulation of all solid-state battery by using discrete element method
- Understanding crack formation in electrode layer of all solid-state battery
- Database model and machine learning of estimation of structural properties

Venue: Auditorium, 1F, WPI-MANA Bldg., Namiki-site

Date: Tuesday, February 6th, 2024

Time: 10:00-12:00

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