

Title: Li-Ion Batteries  
Lecturer: Sylvio Indris

Topics:

- Fundamentals
- Materials Aspects
- Insertion mechanisms
- Anodes
- Kathodes
- Electrolytes
- Battery systems
- *In situ* characterization techniques
- Research at INT

Abstract:

The future development of mobile devices, such as laptop computers and cell phones, but also of electric vehicles is highly dependent on the improvement of Li-ion batteries. This lecture describes the fundamental aspects of electrochemical energy storage systems, materials' aspects for electrodes and electrolytes, and new characterization techniques applied for better fundamental understanding as well as for optimization of the battery systems.