

CBC740 - Graduate Main Group Element Inorganic Chemistry

Aims and Objectives

The objective of this course is to

- (i) Understand the fundamental nature of s and p block elements comprehensively and deeply.
- (ii) Gain insight into the recent advance and current topics in main group chemistry.

It will be conducted in the combination of the regular lectures and tutorial-type discussion.

At the end of this course, students should:

- Be able to critically overview the Periodic Table with emphasis on s and p block elements.
- Understand the critical difference in the chemical property between organic molecules and main group molecules.
- Have a better understanding of the nature of heavier elements.
- Interpret the property of bonding and the electronic structures in main group molecules.
- Know how main group compounds are utilized in various applications such as catalysis, in modern development.

Syllabus

This course covers several important topics related to the main group elements. Starting from the quick review of the basic concepts that should have been learned during the undergraduate period, the property of main group elements, main group molecules, and their application in the recent researches will be discussed in detail.

Assessment

Continuous Assessment: 100%

- Quiz (Individual assessment): 50%
- Oral presentation and report (Individual assessment): 50%