

School of Chemistry

Aims and Objectives: Session 2023-2024, Semester 1

Module CH2501: Inorganic Chemistry 2

Course Title: Descriptive Main Group Chemistry

Duration: 17 hours

Lecturer: Dr. P. Kilian and Dr A. Stasch

Aims: To develop the students' appreciation of the chemistry, uses and importance of main group elements. To provide a foundation knowledge of reactivity of main group elements on which to build understanding of trends and patterns in inorganic chemistry.

Objectives:

1. To know and understand the occurrence, structures, chemistry and uses of the main group elements.
2. To know the structures, bonding, chemistry, properties and uses of selected compounds of main group elements.
3. To appreciate the importance of reagents based on main group elements in organic synthesis.
4. To understand how concepts of electronic structure, atomic and ionic size, nuclear charge etc. affect the chemistry of these elements, and how they can be used to explain the trends in the periodic table.
5. To apply these concepts and knowledge to solve problems related to elements in these groups.