CD212 Aug 3:0

Inorganic Chemistry-Main Group and Coordination Chemistry

Instructor

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Department: Department of Inorganic and Physical Chemistry

Course Time: Mon, Wed, Fri, 11:00-12:00

Lecture venue: Department of Inorganic and Physical Chemistry Lecture Hall

re was no link in the internet given for this course. The title and syllabus may be available from the IISc course website for I

Announcements

This was given the handbook distributed to the students.

Brief description of the course

This course covers the important aspects of basic inorganic chemistry to make the students eligible for registering for advanced level courses in inorganic chemistry like bioinorganic chemistry and organometallic chemistry and catalysis.This course covers main group chemistry, i.e. the chemistry of p-block elects and the topics in coordination chemistry, i.e. the chemistry of d- and f-block elements of the periodic table.

Prerequisites

As this is a CD course, there is no prerequisite for this course. So the answer is "none".

Syllabus

Main group: hydrogen and its compounds-ionic, covalent and metallic hydrides, hydrogen bonding, chemistry of lithium, beryllium, boron, nitrogen, oxygen and halogen groups, chains, rings and cage compounds.

Coordination chemistry: bonding theories, spectral and magnetic properties, inorganic reactions and mechanisms, hydrolysis reactions, substitution reactions, trans effect, isomerisation and redox reactions, chemistry of lanthanides and actinide elements.

Course outcomes

The students will learn the chemistry of different elements belonging to the periodic table.

Grading policy

The grading policy was 70% for midterm and final tests (combined), 30% for all assignments.

Assignments

Several assignments were given during the course. There were about eight assignments each with five to ten questions to be answered. The questions were subsequently discussed by the TA. The assignments are to develop the basic understanding of the students on the important topics covered in this course.

Resources

Text books were primarily used for the course.

Sinver and Atkins Inorganic Chemistry, Oxford press, 2010 by Atkins, Overton, Rourke, Weller and Armstrong, 5th Edition (paper back) .

Advanced Inorganic Chemistry by F.A. Cotton, G. Wilkinson and C. A. Murillo, Wiley, 2007 (student edition)

Inorganic Chemistry, Principles of Structure and Reactivity, by James E. Huheey, Ellen A. Keiter, Okhil K. Medhi, Pearson, 2006.