科目ナンバリング	U-LAS13 20004 LE60						
授業科目名<英訳>	Introduction to Inorganic Chemistry A-E2 Introduction to Inorganic Chemistry A-E2			担当者所属職名・氏名	工学研究科　准教授　Tong Zhu		
群	自然科学科目群			分野(分類)	化学(発展)	使用言語	英語
旧群	B群	単位数	2単位	週コマ数	1コマ	授業形態	講義（対面授業科目）
開講年度・開講期	2026・前期	曜時限	火3	配当学年	主として1・2回生	対象学生	理系向

[授業の概要・目的]

These lectures will introduce students to the fundamentals of inorganic chemistry. Atoms, molecules and solids surround us and this lecture will aim at providing students with the tools to better understand their structures, energetics and properties. This course is designed for both Japanese and International students.

[到達目標]

(1) To understand the basic structure of atoms as a function of their position in the periodic table. (2)To be able to draw simple molecular structures and orbital diagrams to understand their properties and reactivity. (3) To be able to visualize and comprehend the basic crystal structures of solids and their related stability and properties.

[授業計画と内容]

The course will cover the following topics, and each of them is read in 1 or 2 weeks

(1) The structure of hydrogen
(2) The structure of many-electron atoms
(3) Lewis structures
(4) Valence bond theory
(5) Molecular orbital theory
(6) Bond properties
(7) The structure of solids and packing of spheres
(8) The structure of metals, alloys and intermetallic compounds
(9) Ionic bonding and ionic solids
(10) Electronic structures and properties of inorganic solids

Total 14 classes and 1 Feedback

[履修要件]

特になし

[成績評価の方法・観点]

Evaluation will be based on attendance and participation (30%), assignments (70%).

[教科書]

Weller, Overton, Rourke, Armstrong 『Inorganic Chemistry』 （Oxford University Press）ISBN:978-0-19-964182-6

Introduction to Inorganic Chemistry A-E2(2)へ続く↓↓↓

Introduction to Inorganic Chemistry A-E2(2)

[参考書等]

（参考書）

授業中に紹介する

Will be announced during the lecture

（関連ＵＲＬ）

(Will be announced during the lecture)

[授業外学修（予習・復習）等]

Students are required to do their homeworks and when trouble is encountered during homework, please consult the various recommended textbooks or please ask me.

[その他（オフィスアワー等）]

Office hour: Anytime by email and appointments should be made via email.

[主要授業科目（学部・学科名）]

理学部