科目ナンバリング	U-LAS13 20006 LE60						
授業科目名<英訳>	Introduction to Inorganic Chemistry B-E2 Introduction to Inorganic Chemistry B-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・後期	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. This series of lectures will aim at giving students a basic comprehension of chemical reactions (acid-base and redox) as well as the structure of inorganic substances, their properties and their applications in our daily lives. This course is designed for both Japanese and International students.

[到達目標]

(1) To understand the theories of acid-base and redox reactions.
(2) To be able to analyze the symmetry of complex molecules and their related properties.
(3) To understand the fundamental mechanisms behind characterization techniques related to inorganic chemistry and their applications in studying inorganic compounds.

[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) Brønsted acids and bases
(2) Lewis acids and bases
(3) Oxidation and reduction
(4) Representation of potentials and applications
(5) Molecular symmetry and coordination compounds
(6) Electronic structure of d-metal complexes: crystal-field theory and ligand-field theory
(7) Properties of d-metal complexes
(8) Introduction to the characterization techniques in inorganic chemistry
(9) Material chemistry
(10) Catalysis

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

[参考書等]

（参考書）
授業中に紹介する
Will be announced during the lecture

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

Introduction to Inorganic Chemistry B-E2(2)

（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 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