| 科目ナン | バリン | グ U-1 | LAS13 200 | 20006 LE60 | | | | | | | |
|---|-----|-------|-----------|------------|------|-------------|---------|---------------|--------|-----------|--|
| 授業科目名 Introduction to Inorganic Chemistry B-E2 本 担当者所属 Introduction to Inorganic Chemistry B-E2 職名・氏名 工学研究科 准教授 Cedric Tassel | | | | | | | | Cedric Tassel | | | |
| 群 | 自然科 | 学科目群 | <u> </u> | 分野(分類) | 化学(発 | 送展) 使用言語 英語 | | | | 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 | | 義(対面授 | 遠(対面授業科目) | |
| 開講年度・開講期 | | | 曜時限火 | ⟨3 | | 配当学年 きとして | | 主として1・3 | 2哩 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 theories and their applications.

[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 (10%), reports (90%).

[教科書]

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

| Introduction to Inorganic Chemistry B-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 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. |
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