

## Nano-material Engineering

2 units (selection)

Shuichi Hashimoto · PROFESSOR / RESOURCE CIRCULATORY ENGINEERING, ECOSYSTEM ENGINEERING, EARTH AND LIFE ENVIRONMENTAL ENGINEERING

**Target** To understand the physical and chemical properties of materials at micro- and nano-scales for designing and assembling nano-structured materials with special consideration to environmental issues

**Outline** Physical and chemical properties as well as characterization techniques of various materials will be discussed on the basis of micro- and nanostructure.

**Style** Lecture

**Notice** 授業中、関数電卓等を用いて簡単な計算を行う場合がある。

**Goal** 環境との相互作用を考慮しつつさまざまな材料の性質をミクロな視点から理解すること。

**Schedule**

1. Introduction
2. Structure of solids
3. Structure of solids
4. Optical properties of solids
5. Optical properties of solids
6. Optical properties of solids
7. Optical properties of solids, assignment1
8. Evaluation technique of nano-materials
9. Evaluation technique of nano-materials
10. Evaluation technique of nano-materials
11. Evaluation technique of nano-materials, assignment2
12. Application of nano-materials
13. Application of nano-materials
14. Current topics in nano-materials and nanotechnology
15. Current topics in nano-materials and nanotechnology
16. exam

**Evaluation Criteria** assignment1 25% assignment2 25% exam 50%

**Contents** <http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216801>

**Student** Able to be taken by student of other department and faculty

**Contact**

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**Note** 授業を受ける際には、2時間の授業時間毎に2時間の予習と2時間の復習をしたうえで授業を受けることが、授業の理解と単位取得のために必要で

ある。