

HCB.C412-04

Interdisciplinary Research Fundamentals II (4) [Biomaterials]

Instructor: Prof. Hideki Abe

Course description and aims:

Biomaterials have been used as functional materials in various application fields. Both the chemical structure (molecular structure) and the aggregate structure (solid-state structure and surface structure) of biomaterials act as an important factor in regulating their properties and functions. By this lecture, I survey it about the relationships between properties and functions of biomaterials and the molecular structure, solid-state structure, and surface structure, and also explain it about the basic way of thinking for designs of biomaterials having appropriate performance.

Day/Period (Room No.) Mon 3-4 (Zoom)

1. 6/12 Mon. Syntheses and molecular structure of biomaterials-1
2. 6/19 Mon. Syntheses and molecular structure of biomaterials-2
3. 6/26 Mon. Solid-state structure and properties of biomaterials-1
4. 7/3 Mon. Solid-state structure and properties of biomaterials-2
5. 7/10 Mon. Surface structure and functions of biomaterials-1
6. 7/24 Mon. Surface structure and functions of biomaterials-2

Textbook(s): None required. Notes/slides will be distributed.

Grading:

The score is evaluated by the homework assignments.