

HCB.C412-04

Interdisciplinary Research Fundamentals II (4) [Biomaterials]

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 Mon 3-4

1. 6/13 Mon. Syntheses and molecular structure of biomaterials-1
2. 6/20 Mon. Syntheses and molecular structure of biomaterials-2
3. 6/27 Mon. Solid-state structure and properties of biomaterials-1
4. 7/4 Mon. Solid-state structure and properties of biomaterials-2
5. 7/11 Mon. Surface structure and functions of biomaterials-1
6. 7/25 Mon. Surface structure and functions of biomaterials-2