

HCB.C411-02

Interdisciplinary Research Fundamentals I 2 [Biomaterials]

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. Syntheses and molecular structure of biomaterials-1
2. Syntheses and molecular structure of biomaterials-2
3. Solid-state structure and properties of biomaterials-1
4. Solid-state structure and properties of biomaterials-2
5. Surface structure and functions of biomaterials-1
6. Surface structure and functions of biomaterials-2