Advanced Topics in Atoms and/or Molecules Manipulation

2 units (selection)

Shuichi Hashimoto · Professor / Resource Circulatory Engineering, Ecosystem Engineering, Earth and Life Environmental Engineering
Shigeki Matsuo · Associate Professor / Resource Circulatory Engineering, Ecosystem Engineering, Earth and Life Environmental Engineering

Target〉 New methdologies for the manipulation of the atoms and molecules in materilas will be presented and students are encouraged to gain skills to think about to solve problems in this field

Outline〉 New methodologies will be given for mamipulating atoms and molecuels, controling physical and chemical properties, and fabricating micro- and nanostructures based upon optical/laser techniques

Style〉 Portfolio

Goal〉 To acquire knowledge of the properies of materials to the level of atoms and molecules

Schedule〉

1. Photophysical processes
2. Photophysical processes
3. Photochemical processes
4. Photochemical Processes
5. Two-photon processes
6. laser trapping
7. laser trapping
8. laser ablation
9. laser ablation
10. laser micro processing
11. laser micro fabrication
12. phtonic crystals
13. laser crystallization
14. New topics
15. New topics

Evaluation Criteria〉 Assignments counts 100%

Contents〉 http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216637

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．