

CAMT Seminar

“Micro/Nanomotors”

Prof. Aysegul Uygun Oksuz

Chemistry Department, Faculty of Arts and Science,
Suleyman Demirel University,
ISPARTA, TURKEY

Date: 09 July, 2019 (Tue) 14:00-15:00

Location: Main Conference Room (1st floor), Bldg. A12

Center for Atomic and Molecular Technologies (CAMT)

(A12 棟 1 階会議室)

Abstract:

Nanotechnology has led to the development of powerful synthetic micro/nano motors that convert energy into movement and are able to perform advanced assignments at the micro- and nano-scales. These small motors are improving on specific applications such as, noninvasive surgery, targeted drug delivery, security and defense, environmental monitoring and remediation, cell manipulation and isolation. Nanomotors can be self propelled or externally powered in the liquid phase by different types of energy sources such as catalytic, magnetic, ultrasonic, electric fields and light propulsion mechanisms. Nano and micro motors driven by magnetic fields are one of the most promising approaches due to their advantages on motion control, biocompatibility, long lifetime and great potential to *in vivo* studies. In this study, we investigated the applicability of the nanomotors for miRNA hybridization sensing using synthetic oligonucleotides. The changes in the fluorescence intensity as well as the changes in the speed of micromotors were examined before and after hybridization.

(Host: Satoshi Hamaguchi Ext:7913)