NCTU-NAIST-ITRC Joint Workshop on Laser Bio/Nano Science

January 25th, 2014
National Chiao Tung University (NCTU)
Tin Ka Ping Photonics Center, 6th Floor, Elevator Hall

Purpose

This workshop aims to share recent progress on research in Laser Bio/Nano Science field by reporting what researchers and students are studying in respective institutes of NCTU (National Chiao Tung University), NAIST (Nara Institute of Science and Technology), and ITRC (Instrument Technology Research Center). International exchange and collaboration among young researchers and students in Hsinchu and Nara will be stimulated by mutual understanding through their frank discussion in this workshop.

Organizing Committee Member

- Hiroshi Masuhara, Atsushi Miura, Ken-ichi Yuyama, Kazunori Okano, Masayasu Muramatsu (NCTU; National Chiao Tung University, Laser Bio/Nano Science Laboratory)
- Ian Liau (NCTU, Biomedical Photonics Laboratory)
- Teruki Sugiyama (ITRC; Instrument Technology Research Center)
- Yoichiroh Hosokawa, Takanori Iino (NAIST; Nara Institute of Science and Technology, GreenBioNano Laboratory)

Place

Tin Ka Ping Photonics Center, 6th Floor, Elevator Hall

Timetable

January 25th (Sat.), 2014

Time	
14:00–14:10	**Opening remarks; Prof. Hiroshi Masuhara**
14:10–16:00	**Poster session**
16:00–16:30	(break & movement)
16:30–17:30	**Lab tour** (16:30–17:00, Biomedical Photonics Laboratory) (17:00–17:30, Laser Bio/Nano Science Laboratory)
17:30–17:40	**Closing remarks; Dr. Takanori Iino**

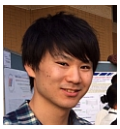
Dinner (18:45~20:30)

豐茗樓港式飲茶
（新竹市中正路 30 之 1 號二樓）

Poster presentation

P-01 	Optical Trapping of CdTe Quantum Dots by Femtosecond Laser Pulse
	Wei-Yi Chiang, Anwar Usman, Tomoki Okuhata, Naoto Tamai, Hiroshi Masuhara
	Department of Applied Chemistry and Institute of Molecular Science, National Chiao Tung University
P-02 	CW and Femtosecond Laser Trapping of a Single Submicron-Sized Dielectric Particle
	Tsung-Han Liu, Anwar Usman, Wei-Yi Chiang, Hiroshi Masuhara
	Department of Applied Chemistry and Institute of Molecular Science, National Chiao Tung University
P-03 	Potential analysis of radiation pressure by CW and Femtosecond Lasers
	Chun-Sheng Wu, Masayasu Muramatsu, Anwar Usman, Hiroshi Masuhara
	Department of Applied Chemistry and Institute of Molecular Science, National Chiao Tung University
P-04 	Laser trapping-controlled pseudopolymorphism of L-phenylalanine accompanied by dehydration
	Chi-Shiun Wu, Ken-ichi Yuyama, Teruki Sugiyama, Hiroshi Masuhara
	Department of Applied Chemistry and Institute of Molecular Science, National Chiao Tung University
P-05 	Laser trapping dynamics of 200 nm polystyrene nanoparticles at an air-solution interface examined by light scattering spectroscopic analysis
	Shun-Fa Wang, Ken-ichi Yuyama, Teruki Sugiyama, Hiroshi Masuhara
	Department of Applied Chemistry and Institute of Molecular Science, National Chiao Tung University
P-06 	Fluorescence excitation-assisted extended phase separation of poly(N-isopropylacryl amide) under laser trapping
	Po-Yu Lin, Atsushi Miura, Hiroshi Masuhara
	Department of Applied Chemistry and Institute of Molecular Science, National Chiao Tung University

P-07 	Protein and cellular micropatterning under physiological condition
	Kazunori Okano, Yoichiroh Hosokawa, Fu-Jen Kao, Yaw-Kuen Li, Hiroshi Masuhara
	Department of Applied Chemistry and Institute of Molecular Science, National Chiao Tung University
P-08 	*In vivo* laser ablation of juvenile zebrafish myocardium for study of cardiac regeneration
	Kazunori Okano, Kuen-You Lin, Chung-Han Wang, Hiroshi Masuhara, Ian Liau
	Department of Applied Chemistry and Institute of Molecular Science, National Chiao Tung University
P-09 	Evaluation of the pharmaceutical effect of anti-atherosclerotic drugs *in vivo* using fluorescence imaging and image-guided Raman spectroscopy
	Yi-Cyun Yang, Wei-Tien Chang, Shao-Kang Huang, Ian Liau
	Department of Applied Chemistry and Institute of Molecular Science, National Chiao Tung University
P-10 	Enhanced optical confinement of dielectric nanoparticles by two-photon resonance
	Aungtinee Kittiravechote, Wei-Yi Chiang, Anwar Usman, Ian Liau, Hiroshi Masuhara
	Department of Applied Chemistry and Institute of Molecular Science, National Chiao Tung University
P-11 	3D Imaging approach for the determination of the cardiac function of zebrafish
	Kuen-You Lin, Wei-Tien Chang, Eric Lai, Ian Liau
	Department of Applied Chemistry and Institute of Molecular Science, National Chiao Tung University
P-12 	Mechanical Stimulation of Single Neuro2a cells by Femtosecond Laser-Induced Impulsive Force
	Takanori Iino, Man Hagiyama, Tadahide Furuno, Akihiko Ito, Yoichiroh Hosokawa
	Graduate School of Materials Science, Nara Institute of Science and Technology

P-13 	Motion Analysis of Biological Cells by Femtosecond Laser Impulse and Its Formulation
	Hirohisa Uedan, Takanori Iino, F.-C. Chang, R.-H. Hung, C.-H. Yu, Fu-Jen Kao, Yoichiroh Hosokawa
	Graduate School of Materials Science, Nara Institute of Science and Technology
P-14 	Molecular introduction of bio-molecules into single plant cells by focused femtosecond laser irradiation
	Ryutaro Shinya, H. Endo, Takanori. Iino, Sayaka Sakaguchi1, A. Yoneda, T. Demura, Yoichiroh Hosokawa
	Graduate School of Materials Science, Nara Institute of Science and Technology
P-15 	High-Speed Imaging of Freezing Process of Sucrose and Glucose Solutions Induced by Femtosecond Laser Impulse
	Tatsuya Kono, Kousuke Sawada, Takanori Iino, Yoichiroh Hosokawa
	Graduate School of Materials Science, Nara Institute of Science and Technology
P-16 	AFM detection of nano-meter vibration of plant roots induced by femtosecond laser impulse
	Ryosuke Fukushima, Takanori Iino, Yoichiroh Hosokawa
	Graduate School of Materials Science, Nara Institute of Science and Technology
P-17 	Femtosecond Laser Impulse-Induced Detachment of Micro-Beads Adhered on Substrate by Avidin-biotin Binding and Its Motion Analysis
	Akihiro Maruyama, Hirohisa Uedan, Sayaka Sakaguchi, Takanori Iino, Yoichiroh Hosokawa
	Graduate School of Materials Science, Nara Institute of Science and Technology