

C-5 Microfluidics, Nanofluidics, and MicroTAS

Representative Organizer

Yoshinobu BABA (Nagoya University)

Co-organizers

Takuya KUBO (Kyoto University)

Manabu TOKESHI (Hokkaido University)

Akihide HIBARA (Tokyo Institute of Technology)

Kazuma MAWATARI (The University of Tokyo)

Hisataka MARUYAMA (Nagoya University)

Yuzuru TAKAMURA (Japan Advanced Institute of Science and Technology)

Noritada KAJI (Nagoya University)

Takao YASUI (Nagoya University)

Oral Session March 30 (Mon.) Room 4

Chair : Yoshinobu Baba (Nagoya University)

8:50 C5-I-01 **Medical Diagnosis and Gene Therapy Using Microfluidic Devices** [Invited Lecture]

^{1,2,3}Manabu Tokeshi

1 DIVISION OF BIOTECHNOLOGY AND MACROMOLECULAR CHEMISTRY, HOKKAIDO UNIVERSITY

2 FIRST RESEARCH CENTER FOR INNOVATIVE NANOBIODEVICES, NAGOYA UNIVERSITY

3 THE PRIORITY RESEARCH PROJECT, " THE KNOWLEDGE HUB" OF AICHI

Chair : Noritada Kaji (Nagoya University)

9:20 C5-I-02 **Laser Sniper for Biology and Medicine : From Single Cell Genomics to DNA Synthesis** [Invited Lecture]

^{1,2,3}Sunghoon Kwon, ²Sungsik Kim, ²Howon Lee, ²Taehoon Ryu, ²Yushin Jung, ²Amos Chungwon Lee, ²Jinhyun Kim, ²Sangwook Bae, ²Huiran Yeom, ²Youngjae Choi

1 CENTER FOR NANOPARTICLE RESEARCH, INSTITUTE FOR BASIC SCIENCE (IBS), SEOUL NATIONAL UNIVERSITY

2 DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE, SEOUL NATIONAL UNIVERSITY

3 INSTITUTES OF ENTREPRENEURIAL BIOCONVERGENCE, SEOUL NATIONAL UNIVERSITY

9:50 C5-O-01 **Nanowire Structures for Extracellular Vesicles Analysis**

^{1,2}Takao Yasui, ^{1,2}Yuki Konakade, ^{1,2}Satoru Ito, ³Yong He, ³Takeshi Yanagida, ^{1,2}Noritada Kaji, ⁴Sakon Rahong, ³Masaki Kanai, ³Kazuki Nagashima, ²Hiroshi Yukawa, ⁵Tomoji Kawai, ^{1,2,4,5}Yoshinobu Baba

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4 INSTITUTE OF INNOVATION FOR FUTURE SOCIETY, NAGOYA UNIVERSITY

5 HEALTH RESEARCH INSTITUTE, NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY (AIST)

Chair : Takao Yasui (Nagoya University)

10:05 C5-O-02 **C₆₀-Fullerene Bonded Silica Monolith for Micro-LC**

¹Takuya Kubo, ¹Yoshiki Murakami, ²Mingdi Yan, ¹Koji Otsuka

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2 DEPARTMENT OF CHEMISTRY, UNIVERSITY OF MASSACHUSETTS

10:20 C5-O-03 **Realization of Functional Extended-Nano Space by Low Temperature Bonding Method and Application to Single Molecule and Single Cell Analysis**

Kazuma Mawatari, Kentaro Shirai, Takehiko Kitamori

DEPARTMENT OF APPLIED CHEMISTRY, THE UNIVERSITY OF TOKYO

- 10:35 C5-O-04 **Liposome Formation Behavior in Microfluidic Device**
¹Masatoshi Maeki, ²Tatsuyoshi Saito, ³Takao Yasui, ¹Akihiko Ishida, ¹Hirofumi Tani, ^{3,4}Yoshinobu Baba,
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- 10:50 C5-O-05 **A Novel Mechanism of the Amplify Insulator-Based Dielectrophoresis for Continuous Concentration of Nanocolloids**
¹Rong Ji Lu, ¹Kuan Yu Chen, ²Fang Cheng, ¹Hung Wei Wu
1 DEPARTMENT OF COMPUTER AND COMMUNICATION, KUN SHAN UNIVERSITY
2 NATIONAL NANO DEVICE LABORATORIES, NATIONAL APPLIED RESEARCH LABORATORIES