

The 3rd OU-SKKU Bilateral Symposium on Photofunctional Materials and Nanointerfaces

Day 1 (Nov. 18th), Meeting room, 2nd floor, 50th Anniversary Hall

(Chair: Prof. Tomoyuki Tajima)

13:00 – 13:15

Opening

13:15 – 14:00

Prof. Young Dok Kim (SKKU)

“Fe-deposited TiO₂ as photocatalyst for removing atmospheric pollutants:
from fundamental aspect to real applications”

14:00 – 14:30

Prof. Yutaka Takaguchi (OU)

“Solar water splitting using semiconducting single-walled carbon nanotubes”

14:30 – 14:45

Break

(Chair: Prof. Seiji Obata)

14:45 – 15:15

Prof. Nobuyuki Takeyasu (OU)

“Fabrications & Applications of Plasmonic Structures”

15:15 – 15:45

Prof. Shunsuke Nishimoto (OU)

“Self-cleaning property of Nb-based thin film surface”

15:45 – 16:15

Prof. Toshihiko Kiwa (OU)

“Terahertz Chemical Microscopy ~Challenge to visualize chemical reactions~”

16:15 – 16:30

Break

(Chair: Prof. Nobuyuki Takeyasu)

16:30 – 17:00

Prof. Eiji Matsuura (OU)

“New era of *in vivo* molecular imaging and targeting medicine: antibody-
based theranostics”

17:00 – 17:45

Prof. Tae Kyu Ahn (SKKU)

“Photophysics of Light-induced Devices”

17:45 – 18:00

Photo-session

(Welcome reception)

The 3rd OU-SKKU Bilateral Symposium on Photofunctional Materials and Nanointerfaces

Day 2 (Nov. 25th), Meeting room, 2nd floor, 50th Anniversary Hall

(Chair: Prof. Yutaka Takaguchi)

- 08:45 – 09:00 Opening
- 09:00 – 09:30 **Prof. Yuta Nishina** (OU)
“Production and Application of 2D Nanocarbons”
- 09:30 – 09:45 **Ms. Zhenru Zhnag** (D2, SKKU)
“The Mechanism and Kinetics of Photocatalytic Reaction for Degradation of Volatile Organic Compounds”
- 09:45 – 10:00 **Mr. Lei Wang** (D3, OU)
“Excited-state intramolecular proton transfer (ESIPT) fluorescence of amido-substituted 2,3-naphthalimides and responses to Ca²⁺ ions”
- 10:00 – 10:15 **Mr. Masaharu Naito** (M1, OU)
“Carbon-Nanotube-based photocatalysts for Water Splitting in Cooperation with BiVO₄ and [Co(bpy)₃]^{3+/2+}”
- 10:15 – 10:30 *Break*
- (Chair: Prof. Tomoyuki Tajima)*
- 10:30 – 10:45 **Mr. Yuki Hashimoto** (M2, OU)
“Synthesis and Optical Properties of Silver Dendrite”
- 10:45 – 11:00 **Mr. Yang Zhou** (M2, OU)
“Synthesis of nitrogen-doped nanocarbons by fusion of metal catalysis and solution plasma process”
- 11:00 – 11:15 **Mr. Sun Gu Song** (D3, SKKU)
“Single-walled carbon nanotube based chemo-capacitive sensors for selective detection of chemical warfare agents with molecular receptors”
- 11:15 – 11:30 **Mr. Masahiro Yamagami** (M2, OU)
“Physical Modification of Carbon Nanotubes with a Dendrimer bearing Terminal Mercaptoundecahydrododecaborates (Na₂B₁₂H₁₁S) toward in-vivo Imaging of Boron Neutron Capture Therapy Agents”
- 11:30 – 11:45 **Mr. Tetsuya Fujita** (M1, OU)
“Dependence of plasmon-mediated chemical reaction on excitation wavelength using a silver nanoparticle 2D array”
- 11:45 – 12:00 **Mr. Mohammed Zahedul Islam Nizami** (D3, OU)
“Functionalized graphene oxide nanoparticles prevent tooth dentin decalcification”
- 12:00 – 13:30 *Lunch*
(SKKU's students visit JASSO scholarship office)
- 13:30 – 13:45 *Take a Photo in front of the conference hall!*

(Chair: Prof. Nobuyuki Takeyasu)

- 13:45 – 14:15 **Prof. Takashi Tamura** (OU)
“Molecular evolution of [NiFeSe]hydrogenases resurrected by phylogeny and molecular dynamics simulation”
- 14:15 – 14:30 **Mr. Byeongjun Cha** (D1, SKKU)
“Hydrophilic surface modification on TiO₂ to improve sustainability of photocatalytic activity”
- 14:30 – 14:45 **Mr. Hibiki Hakamazuka** (M1, OU)
“Photo-induced H₂ Evolution from Water via the Dissociation of Excitons in Water-Dispersible Single-Walled Carbon Nanotube Sensitizers”
- 14:45 – 15:00 **Mr. Rizwan Khan** (D2, OU)
“A simple and robust functionalization of graphene by onium bonding”
- 15:00 – 15:15 *Break*

(Chair: Prof. Yuta Nishina)

- 15:15 – 15:30 **Mr. Taiji Kinocuchi** (M2, OU)
“Simulation of dielectric core-metal nanoparticle satellite structure”
- 15:30 – 15:45 **Mr. Yeonsig Nam** (D3, SKKU)
“Theoretical investigation for the influence of oxygen defect location on charge carrier dynamics in TiO₂ nanoparticles”
- 15:45 – 16:00 **Mr. Syogo Okabe** (M2, OU)
“Photoinduced Electron Transfer in a MoS₂/Anthracene Mixed-Dimensional Heterojunction in Aqueous Media”
- 16:00 – 16:15 **Mr. Ryo Nakagawa** (M1, OU)
“Development of mediator molecules for anode in biofuel cells”
- 16:15 – 16:30 **Mr. Yuki Takeuchi** (M2, OU)
“Reactivity of Hot Carrier Generated by Plasmon”
- 16:30 – 16:45 *Break*

(Chair: Prof. Tae Kyu Ahn)

- 16:45 – 17:00 **Mr. Ryohei Sagawa** (M1, OU)
“Molecular Design of Benzothiadiazole-Based Dyes for Working with Carbon Nanotube Photocatalysts”
- 17:00 – 17:30 **Prof. Seiji Obata** (OU)
“Graphene growth from graphene oxide on various substrates”
- 17:30 – 17:45 **Mr. Seongyun Ha** (D3, SKKU)
“Thiourea-based Aromatic Gels: Anion-Responsive Soft Actuator and Sensor”
- 17:45 – 18:15 **Prof. Hideki Okamoto** (OU)
“Photochemical synthesis of phenacenes and the application to OFET devices”
- 18:15 – 18:25 *Closing*

(Get-together)