Program book



AsiaNANO 2026

2026 Asian Conference on Nanoscience & Nanotechnology

Fukuoka, JAPAN

November 2nd – 4th, 2026

AsiaNANO History

- 1st AsiaNANO Tokyo, Nov. 27~29, 2002
- 2nd AsiaNANO Beijing, Nov. 24~27, 2004
- 3rd AsaiNANO Busan, Nov. 1~4, 2006
- 4th AsiaNANO Singapore, Nov. 3~6, 2008
- 5th AsiaNANO Tokyo, Nov. 1~3, 2010
- 6th AsiaNANO Lijiang, Sep. 7~10, 2012
- 7th AsiaNANO Jeju, Oct. 26~29, 2014
- 8th AsiaNANO Sapporo, Oct. 10~13, 2016
- 9th AsiaNANO Qingdao, Oct. 18~21, 2018
- 10th AsiaNANO Busan, Nov. 9~11, 2022
- 11th AsiaNANO Chennai, Sep. 23~25, 2024
- **12th AsiaNANO Fukuoka, Nov. 2~4, 2026**

The first AsiaNANO conference was launched in Tokyo in 2002, followed by successful meetings in Beijing (2004), Busan (2006), Singapore (2008), Tokyo (2010), Lijiang (2012), Jeju (2014), Sapporo (2016), and Qingdao (2018). After a brief hiatus due to the COVID-19 pandemic, the AsiaNANO series resumed in Busan (2022) and Chennai (2024), continuing its mission of fostering interdisciplinary exchange and regional cooperation across Asia.

Free Wi-Fi

Free Wi-Fi is available in the venue.

SSID: **FCC_Free_WiFi**

No password required.

Conference Website

https://asianano2026.org/

Welcome Message

On behalf of the Organizing Committee, it is our great honor to welcome you to the *12th Asian Conference on Nanoscience and Nanotechnology* (*AsiaNANO 2026*), to be held from November 2 to 4, 2026, at the Fukuoka International Congress Center, Japan. Since its inception, the AsiaNANO conference series has served as a premier platform for researchers and engineers from across Asia and around the world to share their latest achievements and ideas in nanoscience and nanotechnology.

Building upon these early collaborations, the first AsiaNANO was launched in Tokyo in 2002, followed by successful meetings in Beijing (2004), Busan (2006), Singapore (2008), Tokyo (2010), Lijiang (2012), Jeju (2014), and Sapporo (2016). After a brief hiatus due to the COVID-19 pandemic, the AsiaNANO series resumed with renewed vigor in Busan (2022) and Chennai (2024), continuing its mission of fostering interdisciplinary exchange and regional cooperation across Asia. Now, with AsiaNANO 2026 in Fukuoka, we proudly continue this legacy into a new era.

Fukuoka, located at the crossroads between Japan and the rest of Asia, is a vibrant and innovative city known for its openness, creativity, and international outlook. As the home of Kyushu University, one of Japan's leading centers of research and education, Fukuoka represents the spirit of academic excellence and cross-border collaboration that lies at the heart of AsiaNANO. Kyushu University has long been at the forefront of advanced materials and nanoscience research, strengthening scientific networks that connect Japan with Asia and the wider world. AsiaNANO 2026 will feature plenary and invited lectures, poster sessions, and the Asian Young Nanoscientists Forum, offering participants a dynamic platform for discussion, collaboration, and innovation.

We would also like to express our sincere appreciation to the Fukuoka Convention & Visitors Bureau, the Japan Society of Applied Physics, and our industrial partners and sponsors for their generous support and cooperation in making this conference possible. We warmly invite you to join us in Fukuoka to share your research, exchange ideas, and contribute to shaping the future of nanoscience together.



Prof. Kaoru Tamada
Conference Chair, AsiaNANO 2026
Fukuoka, Japan

Committee

Organizing Committee

Chair :	Kaoru Tamada (Kyushu University)
Vice Chair :	Tatsuya Tsukuda (The University of Tokyo) Akira Terasaki (Kyushu University)
Secretary General :	Toshinori Matsushima (Kyushu University)
Treasurer :	Yusuke Arima (Kyushu University)
Members :	Koichi Sakaguchi (Saga University) Yuto Kajino (Kyushu University) Shuichi Nagamatsu (Kyushu Institute of Technology) Shigenori Fujikawa (Kyushu University) Koichi Okamoto (Osaka Metropolitan University) Shinya Kumagai (Meijo University) Yasuyuki Yokota (RIKEN) Ken Albrecht (Kyushu University) Kenichi Goushi (Kyushu University) Shiyoshi Yokoyama (Kyushu University) Kenji Ishida (Kyushu University) Miho Yamauchi (Kyushu University) Kiyoshi Miyata (Kyushu University) Takuya Horio (Kyushu University)

AsiaNANO Conference

Advisor :	Masahiko Hara (Institute of Science Tokyo)

International Organizing Committee

Chair and AsiaNANO Conference Founding Organizer :	Haiwon Lee (Hanyang University, Republic of Korea)
Secretary General :	Hoon-Kyu Shin (POSTECH, Republic of Korea)
Chair and AsiaNANO Conference Founding Organizer :	Zhongfan Liu (Peking University, China)
Secretary General :	Zhiyong Tang (NCNST, China)
Members :	Xinfeng Liu (NCNST, China) Caoyu Yang (NCNST, China)
Chair :	Thalappil Pradeep (Indian Institute of Technology Madras, India)
Secretary General :	Ramya Dwivedi (Indian Institute of Technology Madras, India)

Sponsors

We would like to express our heartfelt thanks to our sponsors for their generous support.
Their partnership and encouragement greatly contribute to the success of this conference.

Co-organized by

Division of Molecular Electronics and Bioelectronics,
The Japan Society of Applied Physics (JSAP)

Institute for Materials Chemistry and Engineering (IMCE),
Kyushu University

Supported by

Applied Physics Academic and Educational Encouragement Fund,
The Japan Society of Applied Physics

Fukuoka City and the Fukuoka Convention & Visitors Bureau

Exhibitors

(in alphabetical order)

ALS Technology Co., Ltd.
Hamamatsu Photonics K.K.
R-DEC Co., Ltd.

Advertisers

(in alphabetical order)

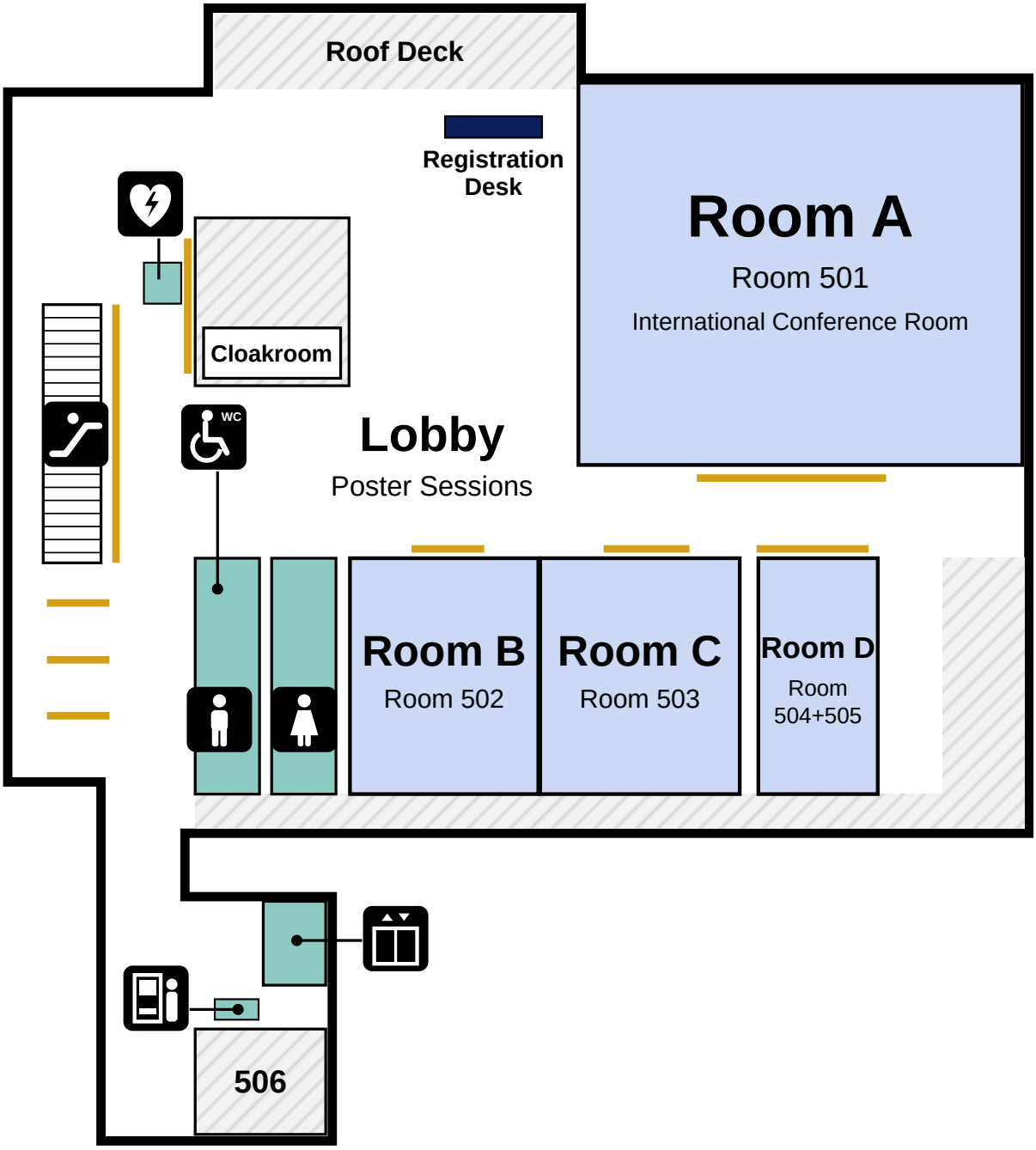
Bright Co., Ltd.
Park Systems Japan Inc.
Tokyo Chemical Industry Co., Ltd.

Supporting Company

Tokushige Chemicals Co., Ltd.

Venue Map

Fukuoka International Congress Center, 5th Floor



Restroom (Men)

Restroom (Women)

Accessible Restroom

Elevator

Escalator

AED

Vending Machine

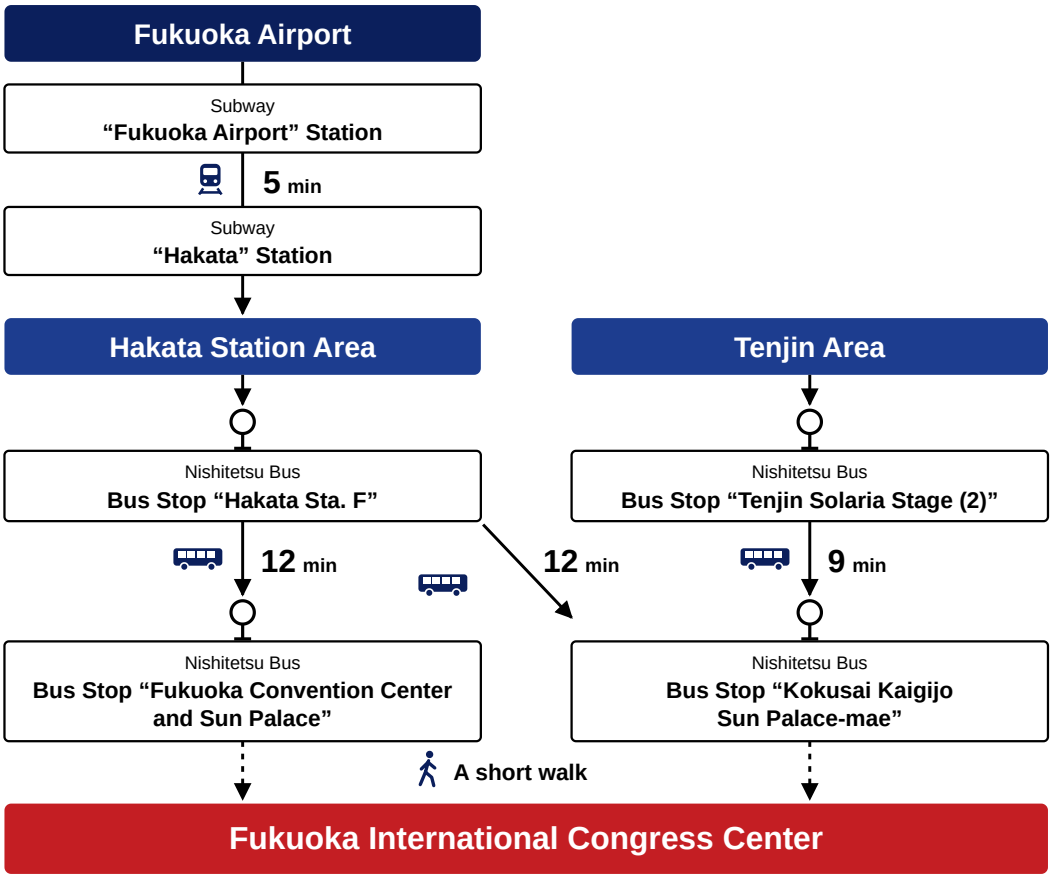
Poster Boards

Oral Sessions: Room A (Room 501), Room B (Room 502), Room C (Room 503), Room D (Rooms 504+505)
Poster Sessions, Registration Desk and Cloakroom: Lobby

Access

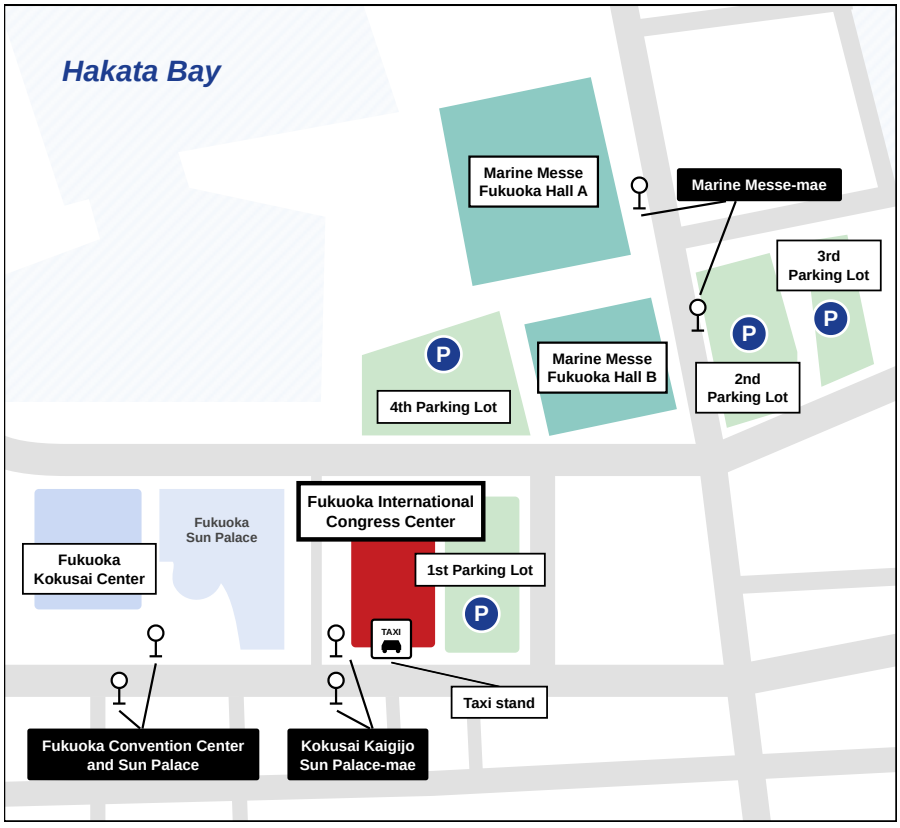
Fukuoka International Congress Center

From Fukuoka Airport, Hakata Station and Tenjin



Area Map

Bus stops are shown with the pin symbol. The map is schematic and not to scale.



Banquet

Tuesday, 3 November 2026 · Marine World Uminonakamichi

Venue Marine World Uminonakamichi
Web https://marine-world.jp
Map https://asianano2026.org/pdf/banquet_map.pdf

17:30 **Meeting at the Main Entrance of Fukuoka International Congress Center (1F)**

- Bus transportation to the Marine World (30 min bus ride)
- Arrival in front of the LUIGANS hotel (5 min walk to the Marine World)

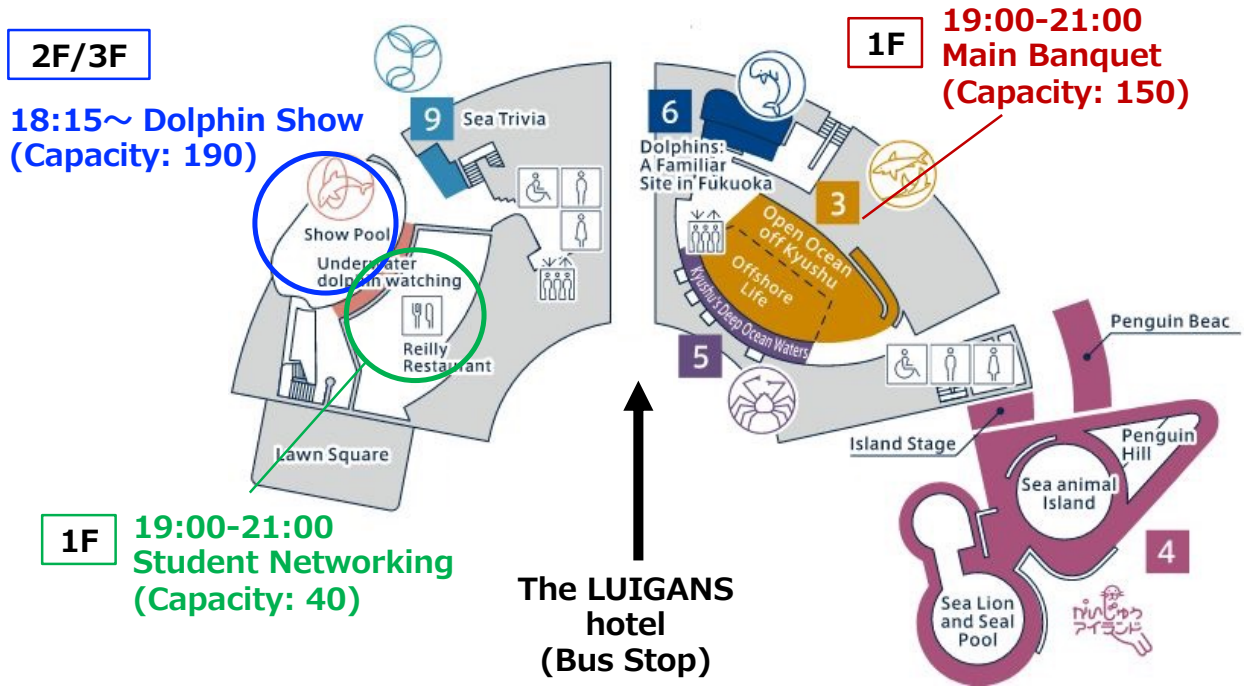
18:15–19:00 **Dolphin show & free time in Aquarium**

19:00–21:00 **Banquet at the Giant Tank (the Open Ocean of Kyushu) 1F/2F**
or **Student Networking at the Reilly Restaurant (Underwater Dolphin Watching) 1F**

21:00 **Move to the LUIGANS hotel**

- Bus transportation to the Hakata station & Tenjin Station

Venue Map Marine World Uminonakamichi



Program at a Glance

DAY 1 Monday, 2 November 2026

	Room A	Room B	Room C	Room D
09:00–09:15	**Opening Ceremony** (Room A) Chair: Kaoru Tamada			
09:15–10:00	**Plenary Lecture 1** 2P-1 **Xing Yi Ling** (Room A) *Nanyang Technological University, Singapore* Chair: Kaoru Tamada			
10:00–10:15	Coffee Break			
10:15–12:15	**Advanced Functional Materials** 2A-a1 – 2A-a4 | 10:15–12:15 Chair: Ken Albrecht	**Organic & Perovskite Optoelectronic Devices 1** 2B-a1 – 2B-a7 | 10:15–12:15 Chair: Hyo Jae Yoon	**Nanosensing & Probe Microscopy 1** 2C-a1 – 2C-a6 | 10:15–12:15 Chair: Yasuyuki Yokota	**Nano/Micro Devices & Flexible Electronics 1** 2D-a1 – 2D-a4 | 10:15–11:30 Chair: Olaf Karthaus
12:15–13:15	Lunch Break			
13:15–14:00	**Plenary Lecture 2** 2P-2 **Chihaya Adachi** (Room A) *Kyushu University, Japan* Chair: Tatsuya Tsukuda			
14:00–14:15	Coffee Break			
14:15–15:30	**Nano/Micro Devices & Flexible Electronics 2** 2A-p1 – 2A-p3 | 14:15–15:15 Chair: Atsushi Wakamiya	**Organic & Perovskite Optoelectronic Devices 2** 2B-p2 – 2B-p4 | 14:45–15:30 Chair: Sang Il Seok	**Nanobio & Nanomedicine 1** 2C-p1 – 2C-p4 | 14:15–15:30 Chair: Sunkook Kim	**Nanosensing & Probe Microscopy 2** 2D-p1 – 2D-p4 | 14:15–15:15 Chair: Yung Doug Suh
15:30–15:45	Coffee Break			
15:45–17:00	**Poster Session 1 (M-1 – M-66)** (Lobby)			

DAY 2 Tuesday, 3 November 2026

	Room A	Room B	Room C	Room D
09:00–09:45	**Plenary Lecture 3** 3P-1 **Chuljin Choi** (Room A) *Korea Institute of Materials Science (KIMS), Republic of Korea* Chair: Indranath Chakraborty			
09:45–10:00	Coffee Break			
10:00–12:00	**Energy & Green Nanotechnology 1** 3A-a2 – 3A-a6 | 10:30–12:00 Chair: Venkataramanan Mahalingam	**Quantum Nanostructures 1** 3B-a1 – 3B-a5 | 10:00–12:00 Chair: Maria Vanessa Balois Oguchi	**Nanobio & Nanomedicine 2** 3C-a1 – 3C-a7 | 10:00–12:00 Chair: Akira Yoko	**Nanophotonics & Photonic Devices 1** 3D-a1 – 3D-a6 | 10:00–12:00 Chair: Tomohiro Shiraki
12:00–13:00	Lunch Break			
13:00–15:00	**Nanosynthesis & Nanofabrication 1** 3A-p1 – 3A-p6 | 13:00–15:00 Chair: Ayumi Hirano-Iwata	**Nanophotonics & Photonic Devices 2** 3B-p1 – 3B-p6 | 13:00–15:00 Chair: Seiichiro Izawa	**Energy & Green Nanotechnology 2** 3C-p1 – 3C-p6 | 13:00–15:00 Chair: Sebastian C. Peter	**Quantum Nanostructures & Nanosensing** 3D-p1 – 3D-p6 | 13:00–15:00 Chair: Hyeon Suk Shin
15:00–15:15	Coffee Break			
15:15–16:30	**Poster Session 2 (T-1 – T-66)** (Lobby)			

DAY 3 Wednesday, 4 November 2026

	Room A	Room B	Room C	Room D
09:00–09:45	**Plenary Lecture 4** 4P-1 **Thalappil Pradeep** (Room A) *Indian Institute of Technology Madras, India* Chair: Akira Terasaki			
09:45–10:00	Coffee Break			
10:00–12:00	**Nano/Micro Devices & Flexible Electronics 3** 4A-a1 – 4A-a2 | 10:00–11:00 Chair: Taro Hitosugi **AI-driven Nanoscience & Nanotechnology** 4A-a3 – 4A-a4 | 11:15–12:00 Chair: Tsuyoshi Sekitani	**Energy & Green Nanotechnology 3** 4B-a2 – 4B-a6 | 10:30–12:00 Chair: Ken Onda	**Nanosynthesis & Nanofabrication 2** 4C-a1 – 4C-a5 | 10:00–11:45 Chair: Tapasi Sen	**Nanobio & Nanosensing** 4D-a1 – 4D-a6 | 10:00–11:45 Chair: Shinya Kumagai
12:00–12:15	Coffee Break			
12:15–12:45	**Closing Ceremony** (Room A)			

Plenary lectures, Opening and Closing Ceremonies: Room A. Poster sessions: Lobby. Room locations are shown on the Venue Map.

DAY 1 Monday, 2 November 2026

	Room A	Room B	Room C	Room D
09:00–09:15	**Opening Ceremony** (Room A) Chair: Kaoru Tamada			
09:15–10:00	**Plenary Lecture 1** 2P-1 **Xing Yi Ling** (Room A) *Nanyang Technological University, Singapore* Chair: Kaoru Tamada			
10:00–10:15	Coffee Break			
	Advanced Functional Materials Chair: Ken Albrecht	**Organic & Perovskite Optoelectronic Devices 1** Chair: Hyo Jae Yoon	**Nanosensing & Probe Microscopy 1** Chair: Yasuyuki Yokota	**Nano/Micro Devices & Flexible Electronics 1** Chair: Olaf Karthaus
10:15	**2A-a1** *Invited* Sang Il Seok	**2B-a1** Martin Ledinsky	**2C-a1** Yuma Morimitsu	**2D-a1** *Invited* Sunkook Kim
10:30		**2B-a2** Paundra Rizky Pratama	**2C-a2** Pangpang Wang	
10:45	**2A-a2** *Invited* Tingkai Zhao	**2B-a3** Hiroyuki Yoshida	**2C-a3** Tatsuki Abe	**2D-a2** Md Mobaidul Islam
11:00		**2B-a4** Soyeon Kim	**2C-a4** Xianwen Mao	**2D-a3** Aparajita Pal
11:15	**2A-a3** *Invited* Jun Takeya	**2B-a5** Telugu Bhim Raju	**2C-a5** *Invited* Yung Doug Suh	**2D-a4** Adrian D. Go
11:30		**2B-a6** Hanbo Jung		
11:45	**2A-a4** *Invited* Young Soo Kang	**2B-a7** *Invited* Atsushi Wakamiya	**2C-a6** *Invited* Takayuki Uchihashi	
12:00				
12:15–13:15	Lunch Break			
13:15–14:00	**Plenary Lecture 2** 2P-2 **Chihaya Adachi** (Room A) *Kyushu University, Japan* Chair: Tatsuya Tsukuda			
14:00–14:15	Coffee Break			
	Nano/Micro Devices & Flexible Electronics 2 Chair: Atsushi Wakamiya	**Organic & Perovskite Optoelectronic Devices 2** Chair: Sang Il Seok	**Nanobio & Nanomedicine 1** Chair: Sunkook Kim	**Nanosensing & Probe Microscopy 2** Chair: Yung Doug Suh
14:15	**2A-p1** *Invited* Hyo Jae Yoon		**2C-p1** Shinya Kumagai	**2D-p1** Hee-Beom Lee
14:30			**2C-p2** Miho Tsuji	**2D-p2** Sujan Manna
14:45	**2A-p2** Koichi Okamoto	**2B-p2** Maziar Jafari	**2C-p3** Zhiwei Tay	**2D-p3** Shyam S. Pandey
15:00	**2A-p3** Jiwoo Kim	**2B-p3** Soichi Yokoyama	**2C-p4** *Invited* Tapasi Sen	**2D-p4** Yasuyuki Yokota
15:15		**2B-p4** V. Singh		
15:30–15:45	Coffee Break			
15:45–17:00	**Poster Session 1 (M-1 – M-66)** (Lobby)			

Plenary talks: 45 min; invited talks: 30 min; oral talks: 15 min. Room locations are shown on the Venue Map.

DAY 2 Tuesday, 3 November 2026

	Room A	Room B	Room C	Room D
09:00–09:45	**Plenary Lecture 3** 3P-1 **Chuljin Choi** (Room A) *Korea Institute of Materials Science (KIMS), Republic of Korea* Chair: Indranath Chakraborty			
09:45–10:00	Coffee Break			
	Energy & Green Nanotechnology 1 Chair: Venkataramanan Mahalingam	**Quantum Nanostructures 1** Chair: Maria Vanessa Balois Oguchi	**Nanobio & Nanomedicine 2** Chair: Akira Yoko	**Nanophotonics & Photonic Devices 1** Chair: Tomohiro Shiraki
10:00		**3B-a1** *Invited* Hyeon Suk Shin	**3C-a1** Ayumi Hirano-Iwata	**3D-a1** Manato Koide
10:15			**3C-a2** Kaoru Hiramoto	**3D-a2** Chih-Hsing Wang
10:30	**3A-a2** *Invited* Sebastian C. Peter	**3B-a2** *Invited* Yuichi Negishi	**3C-a3** Sou Ryuzaki	
10:45			**3C-a4** Anna Fucikova	**3D-a4** Ryuki Ueno
11:00	**3A-a3** Katsuhiro Isozaki	**3B-a3** *Invited* Akshaya K. Samal	**3C-a5** Guoqing Wang	**3D-a5** *Invited* Jwa-Min Nam
11:15	**3A-a4** Song Jin		**3C-a6** Olaf Karthaus	
11:30	**3A-a5** Long Yang	**3B-a4** Kiichirou Koyasu	**3C-a7** *Invited* Guangyu Zhu	**3D-a6** *Invited* Seiichiro Izawa
11:45	**3A-a6** Ramesh Poonchi Sivasankaran	**3B-a5** Akira Terasaki		
12:00–13:00	Lunch Break			
	Nanosynthesis & Nanofabrication 1 Chair: Ayumi Hirano-Iwata	**Nanophotonics & Photonic Devices 2** Chair: Seiichiro Izawa	**Energy & Green Nanotechnology 2** Chair: Sebastian C. Peter	**Quantum Nanostructures & Nanosensing** Chair: Hyeon Suk Shin
13:00	**3A-p1** *Invited* Hua Zhang	**3B-p1** Yuto Kajino	**3C-p1** *Invited* Xin Wang	**3D-p1** Yuya Hamasaki
13:15		**3B-p2** Kuniyuki Miwa		**3D-p2** Yuto Fukumoto
13:30	**3A-p2** *Invited* Edakkattuparambil Sidharth Shibu	**3B-p3** Kiyoshi Miyata	**3C-p2** *Invited* Venkataramanan Mahalingam	**3D-p3** Junpei Shiozaki
13:45		**3B-p4** Tomohiro Shiraki		**3D-p4** Maria Vanessa Balois Oguchi
14:00	**3A-p3** Raja Muhammad Aqib	**3B-p5** *Invited* Zhiyong Fan	**3C-p3** Geetansh Chawla	**3D-p5** *Invited* Sukhendu Mandal
14:15	**3A-p4** Hirokazu Kobayashi		**3C-p4** Minakshi Sharma	
14:30	**3A-p5** Kamyar Shirvani Moghadam	**3B-p6** *Invited* Indranath Chakraborty	**3C-p5** Jiahao Liu	**3D-p6** *Invited* Atanu Ghosh
14:45	**3A-p6** Akira Yoko		**3C-p6** Yifeng Chen	
15:00–15:15	Coffee Break			
15:15–16:30	**Poster Session 2 (T-1 – T-66)** (Lobby)			

Plenary talks: 45 min; invited talks: 30 min; oral talks: 15 min. Room locations are shown on the Venue Map.

DAY 3 Wednesday, 4 November 2026

	Room A	Room B	Room C	Room D
09:00–09:45	**Plenary Lecture 4** 4P-1 **Thalappil Pradeep** (Room A) *Indian Institute of Technology Madras, India* Chair: Akira Terasaki			
09:45–10:00	Coffee Break			
	Nano/Micro Devices & Flexible Electronics 3 Chair: Taro Hitosugi	**Energy & Green Nanotechnology 3** Chair: Ken Onda	**Nanosynthesis & Nanofabrication 2** Chair: Tapasi Sen	**Nanobio & Nanosensing** Chair: Shinya Kumagai
10:00	**4A-a1** *Invited* Yong-Young Noh		**4C-a1** Fumiya Inoue	**4D-a1** Mahima Yadav
10:15			**4C-a2** Lin Yang	**4D-a2** Sathiyamoorthy Padmanaban
10:30	**4A-a2** *Invited* Tsuyoshi Sekitani	**4B-a2** *Invited* Miho Yamauchi	**4C-a3** Wonkyu Kang	**4D-a3** Satyam Shankhdhar
10:45			**4C-a4** *Invited* Toshiharu Teranishi	**4D-a4** *Invited* Yoko Yamanishi
11:00		**4B-a3** Anushka Tyagi		
11:15	**AI-driven Nanoscience & Nanotechnology** Chair: Tsuyoshi Sekitani **4A-a3** Akira Baba	**4B-a4** Marvin Kevin Sarango-Ramirez	**4C-a5** *Invited* Seokhoon Ahn	**4D-a5** Nonoko Nagasaka
11:30	**4A-a4** *Invited* Taro Hitosugi	**4B-a5** Adchara Padermshoke		**4D-a6** Jiaming Liu
11:45		**4B-a6** Roman Selyanchyn		
12:00–12:15	Coffee Break			
12:15–12:45	**Closing Ceremony** (Room A)			

Plenary talks: 45 min; invited talks: 30 min; oral talks: 15 min. Room locations are shown on the Venue Map.

Session Chairs and Room Managers

Room A (Room 501) · Room B (Room 502) · Room C (Room 503) · Room D (Rooms 504+505)

Opening Ceremony and Plenary Lectures · Room A

No.	Date, Time	Speaker	Chair
—	Nov. 2, 09:00–09:15	**Opening Ceremony**	Kaoru Tamada
2P-1	Nov. 2, 09:15–10:00	**Xing Yi Ling**	Kaoru Tamada
2P-2	Nov. 2, 13:15–14:00	**Chihaya Adachi**	Tatsuya Tsukuda
3P-1	Nov. 3, 09:00–09:45	**Chuljin Choi**	Indranath Chakraborty
4P-1	Nov. 4, 09:00–09:45	**Thalappil Pradeep**	Akira Terasaki

Oral Sessions

	Room A	Room B	Room C	Room D
Day 1 · Mon, Nov. 2 · Morning	**Advanced Functional Materials** 10:15–12:15 CHAIR Ken Albrecht ROOM MANAGER Kaoru Tamada	**Organic & Perovskite Optoelectronic Devices 1** 10:15–12:15 CHAIR Hyo Jae Yoon ROOM MANAGER Toshinori Matsushima	**Nanosensing & Probe Microscopy 1** 10:15–12:15 CHAIR Yasuyuki Yokota ROOM MANAGER Shigenori Fujikawa	**Nano/Micro Devices & Flexible Electronics 1** 10:15–11:30 CHAIR Olaf Karthaus ROOM MANAGER Kenichi Goushi
Day 1 · Mon, Nov. 2 · Afternoon	**Nano/Micro Devices & Flexible Electronics 2** 14:15–15:15 CHAIR Atsushi Wakamiya ROOM MANAGER Koichi Okamoto	**Organic & Perovskite Optoelectronic Devices 2** 14:45–15:30 CHAIR Sang Il Seok ROOM MANAGER Shuichi Nagamatsu	**Nanobio & Nanomedicine 1** 14:15–15:30 CHAIR Sunkook Kim ROOM MANAGER Shinya Kumagai	**Nanosensing & Probe Microscopy 2** 14:15–15:15 CHAIR Yung Doug Suh ROOM MANAGER Kenichi Goushi
Day 2 · Tue, Nov. 3 · Morning	**Energy & Green Nanotechnology 1** 10:30–12:00 CHAIR Venkataramanan Mahalingam ROOM MANAGER Shinya Kumagai	**Quantum Nanostructures 1** 10:00–12:00 CHAIR Maria Vanessa Balois Oguchi ROOM MANAGER Kiyoshi Miyata	**Nanobio & Nanomedicine 2** 10:00–12:00 CHAIR Akira Yoko ROOM MANAGER Ken Albrecht	**Nanophotonics & Photonic Devices 1** 10:00–12:00 CHAIR Tomohiro Shiraki ROOM MANAGER Yasuyuki Yokota
Day 2 · Tue, Nov. 3 · Afternoon	**Nanosynthesis & Nanofabrication 1** 13:00–15:00 CHAIR Ayumi Hirano-Iwata ROOM MANAGER Shuichi Nagamatsu	**Nanophotonics & Photonic Devices 2** 13:00–15:00 CHAIR Seiichiro Izawa ROOM MANAGER Kiyoshi Miyata	**Energy & Green Nanotechnology 2** 13:00–15:00 CHAIR Sebastian C. Peter ROOM MANAGER Ken Albrecht	**Quantum Nanostructures & Nanosensing** 13:00–15:00 CHAIR Hyeon Suk Shin ROOM MANAGER Yasuyuki Yokota
Day 3 · Wed, Nov. 4 · Morning	**Nano/Micro Devices & Flexible Electronics 3** 10:00–11:00 CHAIR Taro Hitosugi **AI-driven Nanoscience & Nanotechnology** 11:15–12:00 CHAIR Tsuyoshi Sekitani ROOM MANAGER Kaoru Tamada	**Energy & Green Nanotechnology 3** 10:30–12:00 CHAIR Ken Onda ROOM MANAGER Toshinori Matsushima	**Nanosynthesis & Nanofabrication 2** 10:00–11:45 CHAIR Tapasi Sen ROOM MANAGER Shigenori Fujikawa	**Nanobio & Nanosensing** 10:00–11:45 CHAIR Shinya Kumagai ROOM MANAGER Miho Yamauchi

Poster Sessions and Banquet

Poster Session 1 · Nov. 2, 15:45–17:00 · Lobby	Coordinator: Yuto Kajino
Poster Session 2 · Nov. 3, 15:15–16:30 · Lobby	Coordinator: Yuto Kajino
Banquet · Nov. 3, 19:00–21:00 · Marine World	Master of Ceremonies: Koichi Okamoto

Plenary and Invited Speakers

Plenary Lectures

No.	Speaker	Affiliation	Date, Time
2P-1	**Xing Yi Ling**	*Nanyang Technological University, Singapore*	Nov. 2, 09:15
2P-2	**Chihaya Adachi**	*Kyushu University, Japan*	Nov. 2, 13:15
3P-1	**Chuljin Choi**	*Korea Institute of Materials Science (KIMS), Republic of Korea*	Nov. 3, 09:00
4P-1	**Thalappil Pradeep**	*Indian Institute of Technology Madras, India*	Nov. 4, 09:00

Invited Talks

No.	Speaker	Affiliation	Date, Time
2A-a1	**Sang Il Seok**	*Ulsan National Institute of Science and Technology (UNIST), Republic of Korea*	Nov. 2, 10:15
2D-a1	**Sunkook Kim**	*Sungkyunkwan University, Republic of Korea; Kyonggi University, Republic of Korea*	Nov. 2, 10:15
2A-a2	**Tingkai Zhao**	*Northwestern Polytechnical University, China*	Nov. 2, 10:45
2A-a3	**Jun Takeya**	*The University of Tokyo, Japan*	Nov. 2, 11:15
2C-a5	**Yung Doug Suh**	*Ulsan National Institute of Science and Technology (UNIST), Republic of Korea; Institute for Basic Science (IBS), Republic of Korea*	Nov. 2, 11:15
2A-a4	**Young Soo Kang**	*Korea Institute of Energy Technology (KENTECH), Republic of Korea*	Nov. 2, 11:45
2B-a7	**Atsushi Wakamiya**	*Kyoto University, Japan; EneCoat Technologies Co., Ltd., Japan*	Nov. 2, 11:45
2C-a6	**Takayuki Uchihashi**	*Nagoya University, Japan; National Institutes of Natural Sciences, Japan*	Nov. 2, 11:45
2A-p1	**Hyo Jae Yoon**	*Korea University, Republic of Korea*	Nov. 2, 14:15
2C-p4	**Tapasi Sen**	*Institute of Nano Science and Technology, India*	Nov. 2, 15:00
3B-a1	**Hyeon Suk Shin**	*Institute for Basic Science (IBS), Republic of Korea; Sungkyunkwan University, Republic of Korea*	Nov. 3, 10:00
3A-a2	**Sebastian C. Peter**	*Jawaharlal Nehru Centre for Advanced Scientific Research, India*	Nov. 3, 10:30
3B-a2	**Yuichi Negishi**	*Tohoku University, Japan*	Nov. 3, 10:30
3B-a3	**Akshaya K. Samal**	*Jain University, India*	Nov. 3, 11:00
3D-a5	**Jwa-Min Nam**	*Seoul National University, Republic of Korea*	Nov. 3, 11:00
3C-a7	**Guangyu Zhu**	*City University of Hong Kong, Hong Kong SAR, China*	Nov. 3, 11:30
3D-a6	**Seiichiro Izawa**	*Institute of Science Tokyo, Japan*	Nov. 3, 11:30
3A-p1	**Hua Zhang**	*City University of Hong Kong, Hong Kong SAR, China*	Nov. 3, 13:00
3C-p1	**Xin Wang**	*City University of Hong Kong, Hong Kong SAR, China*	Nov. 3, 13:00
3A-p2	**Edakkattuparambil Sidharth Shibu**	*University of Calicut, India*	Nov. 3, 13:30
3C-p2	**Venkataramanan Mahalingam**	*Indian Institute of Science Education and Research Kolkata, India; Azim Premji University, India*	Nov. 3, 13:30
3B-p5	**Zhiyong Fan**	*The Hong Kong University of Science and Technology, Hong Kong SAR, China*	Nov. 3, 14:00
3D-p5	**Sukhendu Mandal**	*Indian Institute of Science Education and Research Thiruvananthapuram, India*	Nov. 3, 14:00
3B-p6	**Indranath Chakraborty**	*Indian Institute of Technology Kharagpur, India*	Nov. 3, 14:30
3D-p6	**Atanu Ghosh**	*National Institute of Technology Raipur, India*	Nov. 3, 14:30
4A-a1	**Yong-Young Noh**	*Pohang University of Science and Technology (POSTECH), Republic of Korea*	Nov. 4, 10:00
4A-a2	**Tsuyoshi Sekitani**	*The University of Osaka, Japan*	Nov. 4, 10:30
4B-a2	**Miho Yamauchi**	*Tohoku University, Japan; Kyushu University, Japan*	Nov. 4, 10:30
4C-a4	**Toshiharu Teranishi**	*Kyoto University, Japan*	Nov. 4, 10:45
4D-a4	**Yoko Yamanishi**	*Kyushu University, Japan*	Nov. 4, 10:45
4C-a5	**Seokhoon Ahn**	*Korea Institute of Science and Technology (KIST), Republic of Korea*	Nov. 4, 11:15
4A-a4	**Taro Hitosugi**	*The University of Tokyo, Japan*	Nov. 4, 11:30

DAY 1 Monday, 2 November 2026

Opening Ceremony

Room A (Room 501) Chair: **Kaoru Tamada**

09:00–09:15 **Opening Ceremony**

Plenary Lecture 1

Room A (Room 501) Chair: **Kaoru Tamada**

09:15–10:00
2P-1
Plenary

AI-Driven Nanosensors for Predictive Molecular Detection

Xing Yi Ling
Nanyang Technological University, Singapore

10:00–10:15 Coffee Break

Advanced Functional Materials

Room A (Room 501) Chair: **Ken Albrecht**

10:15–10:45
2A-a1
Invited

Nano-Interfacial Charge-Transport Layer Engineering for High-Performance Perovskite Solar Cells

Sang Il Seok
Ulsan National Institute of Science and Technology (UNIST), Republic of Korea

10:45–11:15
2A-a2
Invited

TBD

Tingkai Zhao
Northwestern Polytechnical University, China

11:15–11:45
2A-a3
Invited

Flexible Electronics of Wafer-scale Nanosheet Organic Single-Crystal Semiconductors

Jun Takeya
The University of Tokyo, Japan

11:45–12:15
2A-a4
Invited

CO_2 Conversion and Waste Plastics Degradation into Liquid Fuels

Young Soo Kang
Korea Institute of Energy Technology (KENTECH), Republic of Korea

Organic & Perovskite Optoelectronic Devices 1

Room B (Room 502) Chair: **Hyo Jae Yoon**

10:15–10:30
2B-a1
Oral

Universal Formation Mechanism of Halide Perovskite Thin Films

Martin Ledinsky, Ales Vlk, Robert Hlavac, Karolina Krizova, Zdenka Hajkova
Institute of Physics of the Czech Academy of Sciences, Czech Republic

10:30–10:45
2B-a2
Oral

Interfacial Binding Motifs Govern Solvent Accessibility and Metastable Phase Evolution in Perovskite Nanocrystals

Paundra Rizky Pratama, Yuji Akaishi, Yusuke Inomata, Tetsuya Kida
Kumamoto University, Japan

10:45–11:00
2B-a3
Oral

A Universal Model for Energy-Level Alignment at Interfaces of Hole-Collecting Monolayers in p-i-n Perovskite Solar Cells

Aruto Akatsuka, **Hiroyuki Yoshida**
Chiba University, Japan

11:00–11:15
2B-a4
Oral

Toward Scalable Air-Processed and Water-Stable Perovskite Solar Cells Enabled by a Fishing-Net-Inspired Interfacial Network

Soyeon Kim
Korea Institute of Materials Science (KIMS), Republic of Korea

11:15–11:30
2B-a5
Oral

Design and development of organic hole transport materials for perovskite solar cells

Telugu Bhim Raju, Toshinori Matsushima
Kyushu University, Japan

11:30–11:45
2B-a6
Oral

$PbCl_2$-Regulated Crystallization Kinetics for Homogeneous Halide Distribution in Inverted $CsPbI_2Br$ Perovskite Solar Cells

Hanbo Jung, Toshinori Matsushima, Zhanglin Guo
Kyushu University, Japan

11:45–12:15
2B-a7
Invited

Nanotechnology for Efficient Perovskite Solar Cells

Atsushi Wakamiya[a,b]
[a] *Kyoto University, Japan*
[b] *EneCoat Technologies Co., Ltd., Japan*

Nanosensing & Probe Microscopy 1

Room C (Room 503) Chair: **Yasuyuki Yokota**

10:15–10:30
2C-a1
Oral

Nanoscale Dynamics in Isolated Polystyrene Chains at Solid Interfaces Visualized by Time-Resolved Atomic Force Microscopy

Yuma Morimitsu[a], Shuji Morita[a], Shiho Tanizaki[b], Tomohiro Kubo[b], Satoru Yamamoto[a], Kotaro Satoh[b], Keiji Tanaka[a]
[a] *Kyushu University, Japan*
[b] *Institute of Science Tokyo, Japan*

10:30–10:45
2C-a2
Oral

Nanoscale characterization of silicon surface after delamination from epoxy resin using atomic force microscopy-infrared spectroscopy

Pangpang Wang, Tatsuya Kubozono, Daisuke Yoshihara, Sunao Yamada
Institute of Systems, Information Technologies and Nanotechnologies, Japan

10:45–11:00
2C-a3
Oral

Probing Phase-Separated Structures in Polymer Blends at Buried Solid Interfaces In Situ Using Sum-Frequency Generation Imaging

Tatsuki Abe, Satoru Yamamoto, Keiji Tanaka
Kyushu University, Japan

11:00–11:15
2C-a4
Oral

Quantitative functional imaging of complex interfaces

Xianwen Mao
National University of Singapore, Singapore

11:15–11:45
2C-a5
Invited

TERS, NERS, and ANP

Yung Doug Suh[a,b]
[a] *Ulsan National Institute of Science and Technology (UNIST), Republic of Korea*
[b] *Institute for Basic Science (IBS), Republic of Korea*

11:45–12:15
2C-a6
Invited

Beyond Topography: Real-Time Nanomechanical Mapping with High-Speed Atomic Force Microscopy

Takayuki Uchihashi[a,b]
[a] *Nagoya University, Japan*
[b] *National Institutes of Natural Sciences, Japan*

Nano/Micro Devices & Flexible Electronics 1

Room D (Rooms 504+505) Chair: **Olaf Karthaus**

10:15–10:45
2D-a1
Invited

Human Digital Interactive Materials and Devices

Md Mobaidul Islam[a], Prashant Bisht[a], Junoh Shim[a], Joo-On Oh[a], Heekyeong Park[b], **Sunkook Kim**[a]
[a] *Sungkyunkwan University, Republic of Korea*
[b] *Kyonggi University, Republic of Korea*

10:45–11:00
2D-a2
Oral

Low-Temperature Plasma-Crystallized $Hf_{0.5}Zr_{0.5}O_2$ for High-Performance Flexible Thin-Film Transistors

Md Mobaidul Islam, Hyun Yeol Rho, Arindam Bala, Sunkook Kim
Sungkyunkwan University, Republic of Korea

11:00–11:15
2D-a3
Oral

Multifunctional MOF-Nanofibre Gel Electrolytes for Flexible and Wearable Supercapacitor Applications

Aparajita Pal, Narayan Ch. Das
Indian Institute of Technology Kharagpur, India

11:15–11:30
2D-a4
Oral

Evaluating a CNT-COOH/Polyoxometalate Polymer Composite as a Physical Reservoir Computing Substrate

Adrian D. Go, Seiya Watanabe, Hiroyuki S. Kato, Megumi Akai-Kasaya
The University of Osaka, Japan

12:15–13:15 Lunch Break

Plenary Lecture 2

Room A (Room 501) Chair: **Tatsuya Tsukuda**

13:15–14:00
2P-2
Plenary

Organic light-emitting diodes: Past, Present, and Future Prospects

Chihaya Adachi
Kyushu University, Japan

14:00–14:15 Coffee Break

Nano/Micro Devices & Flexible Electronics 2

Room A (Room 501) Chair: **Atsushi Wakamiya**

14:15–14:45
2A-p1
Invited

Molecular Thermoelectricity

Hyo Jae Yoon
Korea University, Republic of Korea

14:45–15:00
2A-p2
Oral

Nanophotonics with Localized–Delocalized Hybrid Optical Fields

Koichi Okamoto, Shunsuke Murai
Osaka Metropolitan University, Japan

15:00–15:15
2A-p3
Oral

Scalable batch-type synthesis of layered 2D-SnS_2 transistors integration enabled by BEOL-compatible low-thermal budget processes

Jiwoo Kim[a], Seongmo Kang[a,b], Seock-Jin Jeong[a], Seung-Ki Lee[b], Yonghun Kim[a]
[a] *Korea Institute of Materials Science (KIMS), Republic of Korea*
[b] *Pusan National University, Republic of Korea*

Organic & Perovskite Optoelectronic Devices 2

Room B (Room 502) Chair: **Sang Il Seok**

14:45–15:00
2B-p2
Oral

Mechanistic Insights into the Influence of Host Materials on Amplified Spontaneous Emission in Host-Guest Organic Glasses

Maziar Jafari[a,b], Yusei Kaya[b], Takuma Saeki[b], Youhei Chitose[b], Shota Fukuma[b], Chihaya Adachi[b]

[a] *Japan Society for the Promotion of Science (JSPS), Japan*
[b] *Kyushu University, Japan*

15:00–15:15
2B-p3
Oral

Development of NIR-Selective π-Conjugated Molecules for Colorless and Transparent Organic Photovoltaics

Soichi Yokoyama, Yutaka Ie

The University of Osaka, Japan

15:15–15:30
2B-p4
Oral

Effect of Annealing Uniaxially Aligned PBTTT-C14 Thin Films on SAM-Modified SiO_2 in achieving High-Performance OFETs

S. G. Ramer[a], I. A. Palani[a], S. S. Pandey[b], **V. Singh**[a]

[a] *Indian Institute of Technology Indore, India*
[b] *Kyushu Institute of Technology, Japan*

Nanobio & Nanomedicine 1

Room C (Room 503) Chair: **Sunkook Kim**

14:15–14:30
2C-p1
Oral

Propagation of Active Species in Microfluidic System for Promoted Cell Growth

Yuta Suda, Kosei Shimizu, **Shinya Kumagai**

Meijo University, Japan

14:30–14:45
2C-p2
Oral

Analysis of Reactive Oxygen and Nitrogen Species Exposure Effects on Mechanical Characteristics of Murine Myoblast cells C2C12

Miho Tsuji, Shinya Kumagai

Meijo University, Japan

14:45–15:00
2C-p3
Oral

Image-guided magnetic control for precision nanomedicine with a novel Magnetic Particle Imaging platform

Zhiwei Tay[a], Steven M. Conolly[b]

[a] *National Institute of Advanced Industrial Science and Technology (AIST), Japan*
[b] *University of California, Berkeley, USA*

15:00–15:30
2C-p4
Invited

DNA Origami-Driven Assembly of Metal Nanostructures: Nanoengineered Single-Molecule Platforms

Tapasi Sen

Institute of Nano Science and Technology, India

Nanosensing & Probe Microscopy 2

Room D (Rooms 504+505) Chair: **Yung Doug Suh**

14:15–14:30
2D-p1
Oral

Artifact-free sample preparation of metal thin films using Xe plasma-focused ion beam milling for atomic resolution and in situ biasing analyses

Hee-Beom Lee, Seon Je Kim, Taeseok Seong, Chulgi Song

Lam Research Korea Technology Center, Republic of Korea

14:30–14:45
2D-p2
Oral

There's Plenty of Room in a Microdroplet

Sujan Manna, Thalappil Pradeep

Indian Institute of Technology Madras, India

14:45–15:00
2D-p3
Oral

Development of Nanobioengineered Platforms for Health and Environmental Monitoring

Shyam S. Pandey, Kshitij RB Singh
Kyushu Institute of Technology, Japan

15:00–15:15
2D-p4
Oral

Snapshot Measurements of Electronic Structures and Ion-Pairing in Electroactive Self-Assembled Monolayers using Emersion Technique

Yasuyuki Yokota[a], Raymond A. Wong[a], Yousoo Kim[a,b]
[a] *RIKEN, Japan*
[b] *The University of Tokyo, Japan*

15:30–15:45 Coffee Break

15:45–17:00 **Poster Session 1 (M-1 – M-66)**

DAY 2 Tuesday, 3 November 2026

Plenary Lecture 3

Room A (Room 501) Chair: **Indranath Chakraborty**

09:00–09:45 | **3P-1** | Plenary

From Nanotechnology to Materials Innovation Platforms: Korea's Strategy for AI-driven Industrial Transformation

Chuljin Choi

Korea Institute of Materials Science (KIMS), Republic of Korea

09:45–10:00 Coffee Break

Energy & Green Nanotechnology 1

Room A (Room 501) Chair: **Venkataramanan Mahalingam**

10:30–11:00 | **3A-a2** | Invited

Deciphering C–C Coupling in CO_2 Reduction: Advanced Nanomaterial Design Strategies

Sebastian C. Peter

Jawaharlal Nehru Centre for Advanced Scientific Research, India

11:00–11:15 | **3A-a3** | Oral

Hierarchical Architecture of Anisotropic Alkynyl-Protected Au_{22} Nanocluster Exhibiting Cooperative Multifunctional Catalysis

Katsuhiro Isozaki[a], Kenta Iseri[a], Sota Sekiya[a], Hayato Yamauchi[b], Masaaki Mitsui[b], Masaharu Nakamura[a]

[a] *Kyoto University, Japan*
[b] *Rikkyo University, Japan*

11:15–11:30 | **3A-a4** | Oral

Next-Generation AEM Water Electrolysis: Full-Chain Technologies from Electrocatalysts to Large-scale Stack Validation

Song Jin, Sung Mook Choi

Korea Institute of Materials Science (KIMS), Republic of Korea

11:30–11:45 | **3A-a5** | Oral

Electrophotocatalytic CO_2 Conversion to Alcohol via Metal-Organic Molecular Semiconductor Engineering

Long Yang[a,b], Yifei Wang[b], Young Soo Kang[a]

[a] *Korea Institute of Energy Technology (KENTECH), Republic of Korea*
[b] *Southwest University of Science and Technology, China*

11:45–12:00 | **3A-a6** | Oral

Unveiling the Reaction Intermediates and Pathway of Photoelectrochemical CO_2 Reduction toward Solar Liquid Fuels by In-situ Spectroscopic Techniques

Ramesh Poonchi Sivasankaran, Young Soo Kang

Korea Institute of Energy Technology (KENTECH), Republic of Korea

Quantum Nanostructures 1

Room B (Room 502) Chair: **Maria Vanessa Balois Oguchi**

10:00–10:30 | **3B-a1** | Invited

Chemically programmable single-photon emitters in hBN via ambient basal-plane functionalization

Hyeon Suk Shin[a,b]

[a] *Institute for Basic Science (IBS), Republic of Korea*
[b] *Sungkyunkwan University, Republic of Korea*

10:30–11:00 | **3B-a2** | Invited

Structure Control of Metal Clusters and Their Application in Energy and Environmental Catalysts

Yuichi Negishi

Tohoku University, Japan

11:00–11:30
3B-a3
Invited

Structural Anisotropy as a Design Principle for Next-Generation Energy and Environmental Catalysis

Akshaya K. Samal
Jain University, India

11:30–11:45
3B-a4
Oral

Sputtering Synthesis of PVP-Stabilized Magic-numbered Au_{20} Superatoms

Kiichirou Koyasu, Ryoma Hirai, Tatsuya Tsukuda
The University of Tokyo, Japan

11:45–12:00
3B-a5
Oral

Material Properties of Metal Clusters Tuned by Size and Electron Count: The Case of Silver and Its Doped Derivatives

Akira Terasaki, Takuya Horio
Kyushu University, Japan

Nanobio & Nanomedicine 2

Room C (Room 503) Chair: **Akira Yoko**

10:00–10:15
3C-a1
Oral

A Transistor-Inspired Bioelectronic Platform for Directional Control of Artificial Lipid Bilayers

Hironori Kageyama, Maki Komiya, **Ayumi Hirano-Iwata**
Tohoku University, Japan

10:15–10:30
3C-a2
Oral

Engineering the Nanopore Sensor Interface with Lipid Membranes for Single-Particle Analysis

Kaoru Hiramoto, Chisae Kaji, Ayumi Hirano-Iwata
Tohoku University, Japan

10:30–10:45
3C-a3
Oral

High-throughput SERS spectroscopy of single extracellular vesicles using a plasmonic nanopore

Sou Ryuzaki, Keisuke Imaeda, Kosei Ueno
Hokkaido University, Japan

10:45–11:00
3C-a4
Oral

Biomolecular (protein) corona formation on nanoparticles, from individualities to ensembles

Anna Fucikova, Aneta Piklova, Karel Bouda, Katerina Hofbauerova, Vladimir Kopecky, Marie Hubalek Kalbacova
Charles University, Czech Republic

11:00–11:15
3C-a5
Oral

Ultrasmall Nanoclusters Crossing the Bacterial Barrier: Opportunities for Nucleic Acid Delivery and Gene Regulation

Guoqing Wang
Ocean University of China, China

11:15–11:30
3C-a6
Oral

Durable Crosslinked Chitosan Coatings for a Sustainable Future

Olaf Karthaus[a], Julian Vivas[a,b], Leonard Genin[a,c], Taiyo Nagai[a], Yoshihiko Omura[d]
[a] *Chitose Institute of Science and Technology, Japan*
[b] *Fresenius University of Applied Science, Germany*
[c] *Potsdam University, Germany*
[d] *Omura Toryo Inc., Japan*

11:30–12:00
3C-a7
Invited

Biomedical applications of platinum coordination complexes

Guangyu Zhu
City University of Hong Kong, Hong Kong SAR, China

Nanophotonics & Photonic Devices 1

Room D (Rooms 504+505) Chair: **Tomohiro Shiraki**

10:00–10:15
3D-a1
Oral

DDA Analysis of Plasmonic Responses in Pseudo-Nanodimers Formed by Metal Nanoparticles and Their Mirror Images

Manato Koide[a], Koichi Okamoto[b], Shunsuke Murai[b], Daisuke Tanaka[a]
[a] *National Institute of Technology, Oita College, Japan*
[b] *Osaka Metropolitan University, Japan*

10:15–10:30
3D-a2
Oral

Tungsten Metasurfaces for Perfect Solar-Photothermal Conversion with Suppressed Radiative Heat Loss

Chih-Hsing Wang[a,b], Chih-Chung Wang[a,c], Thien Duc Ngo[a,b], Keisuke Watanabe[a], Jia-Han Li[a,c], Keisuke Shinozaki[d], Tadaaki Nagao[a,b]
[a] *National Institute for Materials Science (NIMS), Japan*
[b] *Hokkaido University, Japan*
[c] *National Taiwan University, Taiwan*
[d] *Japan Aerospace Exploration Agency (JAXA), Japan*

10:45–11:00
3D-a4
Oral

Wafer-scale chiral plasmonic structures fabricated by displacement Talbot lithography for circular dichroism

Ryuki Ueno[a], Abhinav Sharma[a], Takuo Tanaka[a,b], Taka-aki Yano[a,b]
[a] *Tokushima University, Japan*
[b] *RIKEN, Japan*

11:00–11:30
3D-a5
Invited

Nanogap Plasmonics with Nanoparticles

Jwa-Min Nam
Seoul National University, Republic of Korea

11:30–12:00
3D-a6
Invited

Charge Transfer Interface for Novel Optoelectronic Devices and Functions

Seiichiro Izawa
Institute of Science Tokyo, Japan

12:00–13:00 Lunch Break

Nanosynthesis & Nanofabrication 1

Room A (Room 501) Chair: **Ayumi Hirano-Iwata**

13:00–13:30
3A-p1
Invited

Phase Engineering of Nanomaterials (PEN)

Hua Zhang
City University of Hong Kong, Hong Kong SAR, China

13:30–14:00
3A-p2
Invited

Self-Assembly in Precision Nanoclusters: New Directions and Applications

Edakkattuparambil Sidharth Shibu
University of Calicut, India

14:00–14:15
3A-p3
Oral

Programmable Wireframe DNA Origami: A Modular Platform for Hierarchical and Symbolic Nanostructures

Raja Muhammad Aqib, Hyungmin Jun
Jeonbuk National University, Republic of Korea

14:15–14:30
3A-p4
Oral

Design of Shape-Controlled Cu-Based Surface-Alloy Nanocrystals for Controlling CO_2 Electroreduction Properties

Hirokazu Kobayashi, Miho Yamauchi
Kyushu University, Japan

14:30–14:45
3A-p5
Oral

Carbon nano patterning on Carbon Nanotube: The case of Cheetah skin CNT

Kamyar Shirvani Moghadam[a], Minoo Naebe[b]
[a] *RMIT University, Australia*
[b] *Deakin University, Australia*

14:45–15:00
3A-p6
Oral

Precision synthesis of organic modified metal oxides by continuous flow hydrothermal method toward highly stable nanofluid applications

Akira Yoko, Kakeru Ninomiya, Maiko Nishibori, Tadafumi Adschiri
Tohoku University, Japan

Nanophotonics & Photonic Devices 2

Room B (Room 502) Chair: **Seiichiro Izawa**

13:00–13:15
3B-p1
Oral

Disordered Plasmonic Nanocavities Enabled by Self-Formed Random Silver Nanodomains on Insulating Nanoparticle Multilayers

Yuto Kajino[a], Tomoya Osoegawa[a], Shotaro Sakai[a], Nagi Nabeyama[a], Yukiko Aida[a], Yusuke Arima[a], Akira Yoko[b], Gimyeong Seong[b], Takaaki Tomai[b], Tadafumi Adschiri[b], Kaoru Tamada[a,b]
[a] *Kyushu University, Japan*
[b] *Tohoku University, Japan*

13:15–13:30
3B-p2
Oral

Nonlocal optical theory of in-plane exciton polaritons in monolayer transition metal dichalcogenides

Kuniyuki Miwa[a,b], Yousoo Kim[a,b,c,d]
[a] *Institute for Basic Science (IBS), Republic of Korea*
[b] *RIKEN, Japan*
[c] *The University of Tokyo, Japan*
[d] *Gwangju Institute of Science and Technology (GIST), Republic of Korea*

13:30–13:45
3B-p3
Oral

Real Time Tracking of Photon Upconversion Processes in Rare Earth Doped Nanoparticles using Ultrafast Spectroscopy

Kiyoshi Miyata[a], Kento Tatsui[a], Shoma Watanabe[a], Yuki Kataoka[a], Shiori Miyazaki[b], Mako Takada[a], Kanji Sugioka[a], Mitsunori Ohta[c], Ryusuke Mizoguchi[c], Ayumi Ishii[d], Tomohiro Ogawa[a], Ken Onda[a]
[a] *Kyushu University, Japan*
[b] *University of Cambridge, United Kingdom*
[c] *Teikyo University of Science, Japan*
[d] *Waseda University, Japan*

13:45–14:00
3B-p4
Oral

Chemical Synthesis of Near-Infrared Luminescent Color Centers in Single-Walled Carbon Nanotubes

Tomohiro Shiraki
Kyushu University, Japan

14:00–14:30
3B-p5
Invited

Biomimetic Eyes with Curved Nanowire Array Retina

Zhiyong Fan
The Hong Kong University of Science and Technology, Hong Kong SAR, China

14:30–15:00
3B-p6
Invited

Engineering Atomically Precise Nanoclusters for Enhanced Optical Properties

Indranath Chakraborty
Indian Institute of Technology Kharagpur, India

Energy & Green Nanotechnology 2

Room C (Room 503) Chair: **Sebastian C. Peter**

13:00–13:30
3C-p1
Invited

Heterogeneous molecular catalysts for electrocatalytic applications

Xin Wang
City University of Hong Kong, Hong Kong SAR, China

13:30–14:00
3C-p2
Invited

Transition Metal based Nano and Micro structured Materials for Electrocatalytic Applications

Viplove Mishra[a], Diya Raveendran[a], Avishek Roy[a], Aditi Chandrasekar[b], **Venkataramanan Mahalingam**[a]
[a] *Indian Institute of Science Education and Research Kolkata, India*
[b] *Azim Premji University, India*

14:00–14:15
3C-p3
Oral

Enhancing C_{2+} Product Faradaic Efficiency in CO_2 Reduction Using Fluorine-Stabilized Superhydrophobic Copper (δ+)

Geetansh Chawla[a], Nilutpal Dutta[a], Siddhi Kediya[a], Debabrata Bagchi[a], Anu Pulparambil[a], Andrew G. M. Rankin[b], Sayan Das[a], Subhajit Chakraborty[a], G. N. Manjunatha Reddy[b], Sebastian C. Peter[a]
[a] *Jawaharlal Nehru Centre for Advanced Scientific Research, India*
[b] *University of Lille, France*

14:15–14:30
3C-p4
Oral

Interlayer Anion-Induced Electronic Synergy in NiFe-LDH/Nickel Cobaltite Heterostructure for Alkaline Water Electrolysis

Minakshi Sharma[a], Vijay K. Singh[b], Ambesh Dixit[a]
[a] *Indian Institute of Technology Jodhpur, India*
[b] *Indian Institute of Technology Ropar, India*

14:30–14:45
3C-p5
Oral

Time-Dependent Evolution of CO_2 Electroreduction Selectivity over SiO_2- Confined Cu_2O Nanocubes

Jiahao Liu[a], Hirokazu Kobayashi[a], Miho Yamauchi[a,b]
[a] *Kyushu University, Japan*
[b] *Tohoku University, Japan*

14:45–15:00
3C-p6
Oral

Reversible Graphite Oxidation–Reduction Behavior in Cathode of Aqueous Aluminum-Ion Batteries Leading to a 2 V Plateau

Yifeng Chen[a], Shigeyuki Umezawa[b], Yasuhiko Hayashi[a]
[a] *Okayama University, Japan*
[b] *Seiwa Electric Mfg. Co., Ltd., Japan*

Quantum Nanostructures & Nanosensing

Room D (Rooms 504+505) Chair: **Hyeon Suk Shin**

13:00–13:15
3D-p1
Oral

Atomically Precise Synthesis of Gold Quantum Needles by Thermally Induced Fusion Reactions

Yuya Hamasaki, Ryota Jonoue, Shinjiro Takano, Tatsuya Tsukuda
The University of Tokyo, Japan

13:15–13:30
3D-p2
Oral

Ligand-bridged programmed assembly of $IrAu_{12}$ clusters utilizing open metal sites

Yuto Fukumoto[a], Shinjiro Takano[a], Yosuke Asami[a], Haru Hirai[a], Koji Harano[b], Tatsuya Tsukuda[a]
[a] *The University of Tokyo, Japan*
[b] *National Institute for Materials Science (NIMS), Japan*

13:30–13:45
3D-p3
Oral

Solvation-Responsive SERS Reporters for Probing Molecular Environments

Junpei Shiozaki[a], Abhinav Sharma[a], Takuo Tanaka[a,b], Taka-aki Yano[a,b]
[a] *Tokushima University, Japan*
[b] *RIKEN, Japan*

13:45–14:00
3D-p4
Oral

Time-Dependent Observation of Molecular Adsorption Processes in Liquid by In Situ SERS

Maria Vanessa Balois Oguchi, Shoma Suzuki, Kotaro Kajikawa
Institute of Science Tokyo, Japan

14:00–14:30
3D-p5
Invited

Structural Evolution in Thiolate-Protected Gold and Copper Nanoclusters: A Pathway to Rational Design

Sukhendu Mandal
Indian Institute of Science Education and Research Thiruvananthapuram, India

14:30–15:00
3D-p6
Invited

Atomically Precise Copper Nanoclusters: Multi-Site Catalysis and New Pathways for Sustainable Bond-Forming Reactions

Atanu Ghosh
National Institute of Technology Raipur, India

15:00–15:15 Coffee Break

15:15–16:30 **Poster Session 2 (T-1 – T-66)**

DAY 3 Wednesday, 4 November 2026

Plenary Lecture 4

Room A (Room 501) Chair: **Akira Terasaki**

09:00–09:45
4P-1
Plenary

The Unfinished Science of Water Across Length Scales: From Clean Water to Microdroplets and Ice

Thalappil Pradeep
Indian Institute of Technology Madras, India

09:45–10:00 Coffee Break

Nano/Micro Devices & Flexible Electronics 3

Room A (Room 501) Chair: **Taro Hitosugi**

10:00–10:30
4A-a1
Invited

Development of high-performance p-type Sn perovskite semiconductors

Yong-Young Noh
Pohang University of Science and Technology (POSTECH), Republic of Korea

10:30–11:00
4A-a2
Invited

Soft Electronic Devices for Minimally Invasive Intravascular Brain–Machine Interfaces

Tsuyoshi Sekitani
The University of Osaka, Japan

AI-driven Nanoscience & Nanotechnology

Room A (Room 501) Chair: **Tsuyoshi Sekitani**

11:15–11:30
4A-a3
Oral

Development of an Electrochemical–Surface Plasmon Resonance Measurement System for In Situ Analysis of PEDOT/AuNP Thin Films for Glucose Sensing

Charin Seesomdee, Sachiko Jonai, Kazunari Shinbo, **Akira Baba**
Niigata University, Japan

11:30–12:00
4A-a4
Invited

Autonomous experiments for the discovery of solid materials

Taro Hitosugi
The University of Tokyo, Japan

Energy & Green Nanotechnology 3

Room B (Room 502) Chair: **Ken Onda**

10:30–11:00
4B-a2
Invited

Interfacial Phenomena Underlying Green Hydrogenation

Miho Yamauchi[a,b]
[a] *Tohoku University, Japan*
[b] *Kyushu University, Japan*

11:00–11:15
4B-a3
Oral

Molecular Engineering of Novel Unsymmetrical Squaraine Dyes for Nanostructured Dye-Sensitized Solar Cells

Anushka Tyagi, Shyam S. Pandey
Kyushu Institute of Technology, Japan

11:15–11:30
4B-a4
Oral

Integrated atmospheric carbon capture and electrochemical conversion system

Marvin Kevin Sarango-Ramirez[a], Manabu Higashi[a], Akihito Anzai[b], Roman Selyanchyn[a], Shigenori Fujikawa[a], Miho Yamauchi[a]
[a] *Kyushu University, Japan*
[b] *Hokkaido University, Japan*

11:30–11:45
4B-a5
Oral

Probing Molecular-Level CO_2 Permeation Mechanisms in PDMS Membranes via Modulation-Excitation DRIFT Spectroscopy

Adchara Padermshoke, Roman Selyanchyn, Tomohiro Noguchi, Miho Yamauchi, Nobutaka Maeda, Shigenori Fujikawa
Kyushu University, Japan

11:45–12:00
4B-a6
Oral

Thickness dependent gas transport in polymeric nanomembranes

Roman Selyanchyn, Ryo Tomeba, Pavlo Baloh, Shigenori Fujikawa
Kyushu University, Japan

Nanosynthesis & Nanofabrication 2

Room C (Room 503) Chair: **Tapasi Sen**

10:00–10:15
4C-a1
Oral

Real-Time Visualization of Plasmonic Nanostructure Formation during Gold Electrodeposition

Fumiya Inoue[a], Abhinav Sharma[a], Takuo Tanaka[a,b], Taka-aki Yano[a,b]
[a] *Tokushima University, Japan*
[b] *RIKEN, Japan*

10:15–10:30
4C-a2
Oral

Resolving Circularly Polarized Light Emission in ZnO Nanohelix Arrays: Separating and Structurally Tuning CPL Generation and CPS Modulation

Lin Yang[a], Yating Fang[a], Wanning Zhang[b], Xuanqun Wang[a]
[a] *The Chinese University of Hong Kong, Hong Kong SAR, China*
[b] *Shanghai Jiao Tong University, China*

10:30–10:45
4C-a3
Oral

Room-Temperature Ar Plasma Engineering of High-Performance p-Type Tellurium Phototransistors

Wonkyu Kang[a], Uisik Jeong[a], Debottam Daw[a], Kwun-Bum Chung[b], Anamika Sen[a], Sunkook Kim[a]
[a] *Sungkyunkwan University, Republic of Korea*
[b] *Dongguk University, Republic of Korea*

10:45–11:15
4C-a4
Invited

Direct Formation and Concerted Properties of Nanocrystal Superlattices

Toshiharu Teranishi
Kyoto University, Japan

11:15–11:45
4C-a5
Invited

Multi-Functional BNNT/Polymer Composites with High Neutron Shielding

Seokhoon Ahn
Korea Institute of Science and Technology (KIST), Republic of Korea

Nanobio & Nanosensing

Room D (Rooms 504+505) Chair: **Shinya Kumagai**

10:00–10:15
4D-a1
Oral

Sustainable Nanomedicine: Plant-Based Titanium Dioxide Nanoparticles for Enhanced Renal Cancer Radiotherapy

Mahima Yadav[a], Jason Hodge[b], Terry Piva[c], Moshi Geso[c], Rod Lynch[b], Bill Patterson[b], Faiza Basheer[a], Rasika M Samarasinghe[a]
[a] *Deakin University, Australia*
[b] *Barwon Health, Australia*
[c] *RMIT University, Australia*

10:15–10:30
4D-a2
Oral

A Dual-Modality nanozyme Exploiting ROS-Responsive oxygen Catalysis for Precision NF-κB pathway Suppression in gouty arthritis

Sathiyamoorthy Padmanaban[a,b], In-Kyu Park[a,c]
[a] *Chonnam National University, Republic of Korea*
[b] *Gwangju Institute of Science and Technology (GIST), Republic of Korea*
[c] *DRCure Inc., Republic of Korea*

10:30–10:45
4D-a3
Oral

Self-Powered Tactile Sensor for Human-Machine Interface Using Flexible Piezoelectric Nanogenerator

Satyam Shankhdhar, Davinder Kaur
Indian Institute of Technology Roorkee, India

10:45–11:15
4D-a4
Invited

Emergent Functions of Plasma-induced Bubble

Yoko Yamanishi
Kyushu University, Japan

11:15–11:30
4D-a5
Oral

Elucidating the Relationship between 3D Structural Order and Plasmon Response using DNA-functionalized Nanoparticle Superlattices

Nonoko Nagasaka, Saki Kozawa, Taito Ikeuchi, Lidong Zhang, Satoshi Ogawa, Makoto Kuwahara, Xu Li, Miho Tagawa
Nagoya University, Japan

11:30–11:45
4D-a6
Oral

Size dependence on Young's modulus of sub-nanometer gold nanocontacts using microscopic nanomechanical measurement method

Jiaming Liu, Yoshifumi Oshima
Japan Advanced Institute of Science and Technology, Japan

12:00–12:15 Coffee Break

Closing Ceremony

Room A (Room 501)

12:15–12:45 **Closing Ceremony**

POSTER SESSION 1 Monday, 2 November 2026 · 15:45–17:00

Presenting authors are underlined.

Nanophotonics & Photonic Devices

M-1 **Transition moment engineering using optical near-fields in a dimeric Au_{13} cluster**

Takeshi Iwasa

Hokkaido University, Japan

M-2 **Theoretical study on the excited states of phosphine-protected Au_8 core-exo-type cluster**

Yuta Takamura, Tetsuya Taketsugu, Takeshi Iwasa

Hokkaido University, Japan

M-3 **Synthesis of Phthalocyanine Complexes with B-N Bonds**

Momoka Kubota, Mutsumi Kimura

Shinshu University, Japan

M-4 **Structual Optimization of Electron-Transporting Parylenes for Enhanced Performance**

Sora Miyauchi, Mutsumi Kimura

Shinshu University, Japan

M-5 **Bio-Templated Metal–Insulator–Metal Nanocone Structures on Black Cicada Wings for Broadband Optical Extinction**

Yuto Yoshida, Yuma Takahashi, Daisuke Tanaka

National Institute of Technology, Oita College, Japan

M-6 **Three-Axis Optical Torque of an Optical-Vortex-Excited Plasmonic Sub-Shell Nanoparticle for Light-Driven Nanomotor Applications**

Fu Koharu, Kenta Oishi, Daisuke Tanaka

National Institute of Technology, Oita College, Japan

M-7 **Multiexciton-Related Picosecond Emission Dynamics of InP/ZnSe/ZnS Quantum Dots**

Jo Takagi, Tatsuya Yoshida, Shintaro Yamamoto, Ami Takada, Takumi Ehara, Tomohiro Ogawa, Ken Onda, Kiyoshi Miyata

Kyushu University, Japan

M-8 **Development of dual excitation luminescence spectroscopy and application to upconversion emission dynamics in lanthanide doped upconversion nanoparticles**

Shoma Watanabe[a], Kento Tatsui[a], Yuki Kataoka[a], Kanji Sugioka[a], Shiori Miyazaki[b], Ryota Komatsuzaki[c], Ryusuke Mizoguchi[d], Ayumi Ishii[c], Tomohiro Ogawa[a], Ken Onda[a], Kiyoshi Miyata[a]

[a] *Kyushu University, Japan*
[b] *University of Cambridge, United Kingdom*
[c] *Waseda University, Japan*
[d] *Teikyo University of Science, Japan*

Quantum Nanostructures

M-9 **Unravelling Collective versus Individual Excitonic Dynamics in Perovskite Nanocrystal Ensembles**

Akash Tripathi[a], Niladri S Karan[b], Narayan Pradhan[b], K. V. Adarsh[a]

[a] *Indian Institute of Science Education and Research Bhopal, India*
[b] *Indian Association for the Cultivation of Science, India*

M-10 **Diphosphine Protected Au_{13} Cluster as a Homogeneous Catalyst for Hydroamination of Terminal Alkyne**

Shen Wu, Shinjiro Takano, Tatsuya Tsukuda

The University of Tokyo, Japan

M-11 **Serial Synthesis of Gold Quantum Needles via NHC-mediated Fusion Reaction**

Sarita Kolay[a,c], Andrew Laluk[b,c], Shinjiro Takano[a,c], Cathleen M. Crudden[b,c], Tatsuya Tsukuda[a,c]

[a] *The University of Tokyo, Japan*
[b] *Queen's University, Canada*
[c] *Carbon to Metal Coating Institute, Canada*

M-12 **Quantum Dot Assembly Induced by the Photodimerization of Anthracene Derivatives**

Yuki Fujiwara, Tetsuo Yamaguchi, Sadahiro Masuo

Kwansei Gakuin University, Japan

M-13 **Energy Transfer in a Perovskite Nanocrystal–Perylene Bisimide Systems –Investigation of Energy Transfer from Multiple Excitons–**

Kotone Takahashi, Tetsuo Yamaguchi, Sadahiro Masuo

Kwansei Gakuin University, Japan

Energy & Green Nanotechnology

M-14 **2D Janus MoSSe as an Efficient Electrocatalyst for Hydrogen Evolution**

Wan-Ni Chou[a], Yunyue Zhu[b], Jing Kong[b], Mario Hofmann[c], Ya-Ping Hsieh[d], Ding-Rui Chen[a]

[a] *Chung Yuan Christian University, Taiwan*
[b] *Massachusetts Institute of Technology, USA*
[c] *National Taiwan University, Taiwan*
[d] *Academia Sinica, Taiwan*

M-15 **One-Step Upcycling of Waste Carbon Composite into Heteroatom-Doped Carbon Nanostructures for High-Performance Lithium-Ion Battery Anodes**

Yong Chae Jung, Young Nam Kim

Korea Institute of Science and Technology (KIST), Republic of Korea

M-16 **A Fluorine-Free Siloxane-Polymer Heterostructured Binder for High-Energy Lithium-Ion Cathodes under Harsh Conditions**

Uktae Jeong[a,b], Junho Jang[a], Min Jeong Kang[a], Hyeon-Gyun Im[a]

[a] *Korea Electrotechnology Research Institute (KERI), Republic of Korea*
[b] *Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea*

M-17 **A Fluorine-Free Siloxane Nanohybrid Binder for Electrochemical Stabilization of High-Nickel Cathode in Lithium-Ion Batteries**

Cheong Eun Lee[a,b], Uktae Jeong[a,c], Min Jeong Kang[a], Dong Jun Kang[a], Junho Jang[a], Jung-Woo Lee[b], Hyeon- Gyun Im[a]

[a] *Korea Electrotechnology Research Institute (KERI), Republic of Korea*
[b] *Pusan National University, Republic of Korea*
[c] *Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea*

M-18 **Evaluation of the Biodegradability of Chitin/Chitosan Materials in Natural Marine Environments**

Rinnosuke Oishi, Akihiro Mizuyama, Tomohisa Suzuki, Sei Kawamura, Olaf Karthaus

Chitose Institute of Science and Technology, Japan

M-19 **Effect of shell thickness of mesoporous silica-alumina hollow spheres synthesized by ultrasonic irradiation on activity for hydrolysis of ammonia borane**

Naoki Toyama[a], Kento Maiguma[a], Kaori Wada[b], Kenzo Deguchi[c], Shinobu Ohki[c], Yuuki Mogami[c], Masataka Tansho[c], Atsushi Goto[c], Shigeki Furukawa[a]

[a] *Nihon University, Japan*
[b] *Chuo University, Japan*
[c] *National Institute for Materials Science (NIMS), Japan*

M-20 **Topotactic transformation and heterovalent Ni doping-induced phase stabilization and dynamic reconstruction of β-FeOOH nanorods for electrocatalytic overall water splitting**

Novuhulu Rhakho, Akshaya K. Samal

Jain University, India

M-21 **Design of a PDMS based High Performance Symmetric Supercapacitor using 3D $Ni(OH)_2$/2D Co_3O_4 Hybrid Composite Electrode Architecture**

Gourab Hati, Bhanu Bhusan Khatua
Indian Institute of Technology Kharagpur, India

M-22 **Development of chemical-free harvesting methods for microalgae using freezing and electric field assisted serpentine flow**

Kento Kojiro, Asami Ohtake, Koichi Sakaguchi, Mikihide Demura
Saga University, Japan

M-23 **Tuning CO_2 Permeance–Selectivity Balance via 18-Crown-6 Blending in Pebax Thin-Film Composite Membranes**

Pavlo Baloh, Roman Selyanchyn, Shigenori Fujikawa
Kyushu University, Japan

M-24 **Surface Amine Engineering of Silica Nanoparticles for CO_2/N_2 Separation Mixed Matrix Membranes**

Yuka Horie[a], Yu Kanasaki[b], Miki Yoshimune[b], Fuwa Komatsu[a], Takayuki Ishizaka[b], Akito Masuhara[a]
[a] *Yamagata University, Japan*
[b] *National Institute of Advanced Industrial Science and Technology (AIST), Japan*

M-25 **High-Efficiency $BiVO_4$ Photoanodes via Multi-Layered 15 nm Catalysts Directed by Cost-Effective Block Copolymer Patterning**

WooSeok Tack, JangHwan Kim
Ajou University, Republic of Korea

M-26 **High-Frequency AC Line Filtering with Silicon Carbide-Based Flexible Supercapacitors**

Rajesh Kumar, Davinder Kaur
Indian Institute of Technology Roorkee, India

M-27 **Effect of Polymer-Main Chain Flexibility on Ion Conductivity of Core-Shell Silica Nanoparticles Coated with Poly(ionic liquid)**

Yuna Kumasaka, Rikuto Munekata, Akito Masuhara
Yamagata University, Japan

M-28 **Toward an Extended-ELSI Framework for the Responsible Development of Nanotechnology: Comparative Lessons from Korea, the EU, the United States and Japan**

Junsu Lee, Gaeun Shin, Hansu Hwang, Dong Chan Lim
Korea Institute of Materials Science (KIMS), Republic of Korea

M-29 **Improvement of Flame Retardancy and Electrical Insulation in Aramid Fibers via Tannic Acid–Epoxy Core–Shell Interfacial Engineering**

Won-Hui Jeong, Yong Chae Jung
Korea Institute of Science and Technology (KIST), Republic of Korea

Nanobio & Nanomedicine

M-30 **Preparation and Characterization of Nanomaterials with Cytotoxic Activity Against Tumor Cells**

José Luis Bizueto Monroy[a], Iliana E. Medina-Ramírez[a], José Antonio Zapien[b], Martha Jiménez-González[a], Rafael Hernández[a], Jorge H. Martínez-Montelongo[a]
[a] *Universidad Autónoma de Aguascalientes, Mexico*
[b] *City University of Hong Kong, Hong Kong SAR, China*

M-31 **Bioengineered pH-responsive MOF Nanocarriers with Protein-Capped Gold Clusters for Controlled Drug Release and Multimodal Imaging**

Arunima Sinha, Sathi Roy, Santanu Dhara, Suman Chakraborty, Indranath Chakraborty
Indian Institute of Technology Kharagpur, India

M-32 **Effect of Macromolecular Crowding on Cell-Cell Adhesion**
Momo Fukuma, Kaoru Tamada, Yusuke Arima
Kyushu University, Japan

M-33 **Microneedle-Type Plasmonic Biosensor for Vancomycin Monitoring**
Hinata Urano, Daisuke Nakajima, Koji Toma
Shibaura Institute of Technology, Japan

M-34 **Chirality-Dependent, Non-Monotonic Plasmid Delivery into Bacteria Enabled by Carbon Dots**
Zheng Shen, Guanhua Xuan, Guoqing Wang
Ocean University of China, China

M-35 **Characterization of macromolecular interactions by simultaneous measurements of surface plasmon resonance and field effect transistor**
Shiou Yamada[a], Daichi Asano[a], Yui Sasaki[b], Tsuyoshi Minami[b], Koji Toma[a]
[a] *Shibaura Institute of Technology, Japan*
[b] *The University of Tokyo, Japan*

M-36 **Pulsed Electric Field-Based Membrane Damage and Cell Viability in Normal and Senescent Fibroblasts**
Shuntaro Shibazaki, Satoshi Uchida, Ippei Yagi
Tokyo Metropolitan University, Japan

M-37 **Strain-Dependent Inhibition of Bacterial Growth and Biofilm Formation by Kaolin**
Fadilah Sfouq Aleanizy
King Saud University, Saudi Arabia

M-38 **Gold Nanoclusters for Intracellular Nucleic Acid Delivery and Broad-Spectrum Bacterial Gene Silencing**
Jie Yang, Zheng Shen, Qingsong Zhang, Guoqing Wang
Ocean University of China, China

M-39 **Signal-amplification sensing using supramolecular polymers based on a cooperative polymerization model**
Naoto Ariyoshi, Tomoyuki Hamachi, Gaku Fukuhara
Kyushu University, Japan

Nanosensing & Probe Microscopy

M-40 **Dual influence of UV and thermal activation on vertically aligned Nb-doped MoS_2 for enhanced and selective NO_2 detection**
Suresh Kumar, Satyajit Sahu, Mahesh Kumar
Indian Institute of Technology Jodhpur, India

M-41 **Exceptional 3D Long-Range Order in Self-Assembled AB-Stacked Gold Nanotriangle Superlattices**
Manato Yoshikawa, Takeru Mizutani, Xu Li, Saki Kozawa, Taito Ikeuchi, Lidong Zhang, Miho Tagawa
Nagoya University, Japan

M-42 **Study on nanofriction mechanisms in Au nanocontacts using microscopic nanomechanical measurement method**
Mengyuan Zhang, Jiaming Liu, Yoshifumi Oshima
Japan Advanced Institute of Science and Technology, Japan

M-43 **Detection of water-soluble fluorine compounds using amphiphilic malachite green**
Rikuto Nakajima, Mutsumi Kimura
Shinshu University, Japan

M-44 **Application to Soil Component Sensing Using a Cross-linked Parylene Film**
Masaki Furuta, Mutsumi Kimura
Shinshu University, Japan

M-45 **Exploring the photophysical properties of metal nanoclusters and their nanoengineered assemblies using single molecule spectroscopy**

Priyanka Singhmar, Tapasi Sen
Institute of Nano Science and Technology, India

Nano/Micro Devices & Flexible Electronics

M-46 **Surface Patterning Using Photoreactive Parylene Thin Films**

Teruya Inoshi, Mutsumi Kimura
Shinshu University, Japan

M-47 **Liquid-crystalline non-planar phthalocyanine**

Kota Iizuka, Mutsumi Kimura
Shinshu University, Japan

M-48 **Observation of Collective Blinking Transitions in InGaN Single Quantum Well with Annealed Ag Thin Film**

Kotaro Oikawa[a,b], Koichi Okamoto[b], Ruggero Micheletto[a]
[a] *Yokohama City University, Japan*
[b] *Osaka Metropolitan University, Japan*

M-49 **Skin-Integrated Multifunctional Polydopamine Layer for Cryptographic Encoding and Enhanced Biomarker Detection**

Yun Gi Hong, Jang Hwan Kim
Ajou University, Republic of Korea

Nanosynthesis & Nanofabrication

M-50 **Flexible Ionic Liquid–Functionalized rGO–Aramid Nanofiber Composite Film with Superior EMI Shielding, Thermal Conductivity, and Mechanical Performance**

Rimsha Qurratulain, Kayeon Kang, Dineshkumar Mani, Sung-Ryong Kim
Korea National University of Transportation, Republic of Korea

M-51 **High-absorption EMI shielding composite based on a multi-metal core-shell MOM structure maximizing multiple reflections, magnetic loss, and dielectric loss**

Kayeon Kang, Rimsha Qurratulain, Sung-Ryong Kim
Korea National University of Transportation, Republic of Korea

M-52 **Effect of Compounding Biomass-Derived Cellulose Derivatives on the Physical Properties of Fibers**

Rin Naito, Mutsumi Kimura, Nichaphat Passornraprasit
Shinshu University, Japan

M-53 **Bottom-Up Synthesis of Nanocarbon Materials Using Ground-State C_2**

Kazuki Kobayashi[a], Kazunori Miyamoto[b], Masanobu Uchiyama[c,a], Mutsumi Kimura[a]
[a] *Shinshu University, Japan*
[b] *Keio University, Japan*
[c] *The University of Tokyo, Japan*

M-54 **Infinite to Discrete: Controlled Coordination Self-Assembly Organizing Coinage Metal Clusters**

Yuya Domoto
Gunma University, Japan

M-55 **Coinage Metal Clusters Assembled into Discrete Nanoarchitectures via Cooperative Coordination**

Tasuki Tsurumi[a], Hironobu Hayashi[b], Yosuke Nakamura[a], Yuya Domoto[a]
[a] *Gunma University, Japan*
[b] *National Institute for Materials Science (NIMS), Japan*

M-56 **Ordered Assembly of Chiral-Shaped Plasmonic Nanoparticles for Engineering Chiral Near-Field Hotspots**

Han Lin[a], Xu Shi[a], Keiji Sasaki[a], Kuniharu Ijiro[a], Hiroaki Misawa[a,b,c], Hideyuki Mitomo[a]

[a] *Hokkaido University, Japan*
[b] *Okayama University, Japan*
[c] *National Yang Ming Chiao Tung University, Taiwan*

M-57 **Deciphering Twisted Prismatic Structural Evolution in Atomically Precise Copper Nanoclusters**

Glory James, Sukhendu Mandal

Indian Institute of Science Education and Research Thiruvananthapuram, India

Flexible Nanoelectronics

M-58 **Mechanically Compliant Plant-Wearable Sensors for Non-Invasive Monitoring of Quality Dynamics in Edible Crops**

Hyeon Woo Kim, Jang Hwan Kim

Ajou University, Republic of Korea

M-59 **Tough and Self-Healable Disulfide-Containing PI/PU Blends for Triboelectric Nanogenerator Applications**

Somi Yoon[a,b], Young Nam Kim[a], Jeong Jae Wie[b], Yong Chae Jung[a]

[a] *Korea Institute of Science and Technology (KIST), Republic of Korea*
[b] *Hanyang University, Republic of Korea*

Organic & Perovskite Optoelectronic Devices

M-60 **Solution-Processed Multi-Layered p-i-n Organic Photodiodes via Floating-Film Transfer Method**

Takuto Miyauchi[a], Kyoichi Okawa[a], Hibiki Okamoto[b], Masahiro Misaki[b], **Shuichi Nagamatsu**[a]

[a] *Kyushu Institute of Technology, Japan*
[b] *National Institute of Technology, Nara College, Japan*

M-61 **Aggregation-Controlled Double-Layer SnO_2 for High-Performance Perovskite Solar Cells: Design and Mechanistic Insights**

Dai Semba, Telugu Bhim Raju, Zhanglin Guo, **Toshinori Matsushima**

Kyushu University, Japan

M-62 **Organic-Inorganic Co-Alloyed Perovskite Quantum Dots for Advanced Optoelectronics devices**

Afreen[a], Shekhar Mondal[b], Abhijit Hazarika[b], K. V. Adarsh[a]

[a] *Indian Institute of Science Education and Research Bhopal, India*
[b] *CSIR-Indian Institute of Chemical Technology, India*

M-63 **Improving the Photostability of Perovskite Nanocrystals via Optimizing Structural Design of Zwitterionic Ligand Head Groups**

Khang Huynh Vinh[a], Takuro Iizuka[a], Taiki Makino[b], Motofumi Kashiwagi[c], Akito Masuhara[a]

[a] *Yamagata University, Japan*
[b] *ZEON Corporation, Japan*
[c] *ISE Chemicals Corporation, Japan*

M-64 **Boosting the Photostability of Perovskite Nanocrystal Polymer Films through Lecithin Passivation**

Takuro Iizuka[a], Motofumi Kashiwagi[b], Taiki Makino[c], Akito Masuhara[a]

[a] *Yamagata University, Japan*
[b] *ZEON Corporation, Japan*
[c] *ISE Chemicals Corporation, Japan*

M-65 **High-efficiency and Durability Perovskite Solar Cells via Defect Passivation**

Ryo Takahashi, Telugu Bhim Raju, Yuki Kubo, Asako Oki, Toshinori Matsushima

Kyushu University, Japan

M-66 **Heavy-Atom-Embedded Narrowband Emitters with Accelerated Triplet–Singlet Interconversion and Green-to-Red Emission**

Jingpeng Zhang, Jun Hyeon Lee, Guanting Liu, Tatsuya Mori, Takuma Yasuda

Kyushu University, Japan

POSTER SESSION 2 Tuesday, 3 November 2026 · 15:15–16:30

Presenting authors are underlined.

Nanophotonics & Photonic Devices

T-1 **Plasmon-Enhanced Fluorescence Imaging of Cell Membranes Using Random Silver Hemispheres**

Kota Yamasaki, Ryunosuke Taniyama, Yuto Tanaka, Shoki Ogino, Tetsuya Matsuyama, Shunsuke Murai, Kenji Wada, Ikuhiko Nakase, Koichi Okamoto

Osaka Metropolitan University, Japan

T-2 **Effects of Spatial Distribution, Aggregation and Areal Density on Emission Acceleration via Superfluorescence in Two-Dimensional Quantum Dot Systems**

Atsushi Okada[a], Haruki Hirauchi[a], Shun Ito[a], Shunsuke Murai[a], Tetsuya Matsuyama[a], Kenji Wada[a], Hiroyoshi Naito[a,b], Koichi Okamoto[a]

[a] *Osaka Metropolitan University, Japan*
[b] *Ritsumeikan University, Japan*

T-3 **Investigation of Distance-Dependent Surface-Plasmon-Enhanced Photoluminescence from Quantum Dots on Ag Substrates**

Tomohiko Niwa, Tetsuya Matsuyama, Shunsuke Murai, Kenji Wada, Koichi Okamoto

Osaka Metropolitan University, Japan

T-4 **Temperature-Induced Spectral Changes in Gold Nanorods toward Localized Temperature Sensing**

Huy Dang Quang Nguyen, Jeongsu Shin, Maria Vanessa Balois-Oguchi, Kotaro Kajikawa

Institute of Science Tokyo, Japan

T-5 **Emission Dynamics of Lanthanide-Doped Upconversion Nanoparticles Investigated by Double Pulse Excitation**

Yuki Kataoka[a], Kento Tatsui[a], Shoma Watanabe[a], Kanji Sugioka[a], Shiori Miyazaki[b], Ryota Komatsuzaki[c], Ryusuke Mizoguchi[d], Ayumi Ishii[c], Tomohiro Ogawa[a], Ken Onda[a], Kiyoshi Miyata[a]

[a] *Kyushu University, Japan*
[b] *University of Cambridge, United Kingdom*
[c] *Waseda University, Japan*
[d] *Teikyo University of Science, Japan*

T-6 **Elucidation of the Mode Coupling Mechanism in Plasmonic Nanocavities with Disordered Ag Nanostructures**

Nagi Nabeyama[a], Yuto Kajino[a], Yukiko Aida[a], Yusuke Arima[a], Akira Yoko[b], Gimyeong Seong[b], Takaaki Tomai[b], Tadafumi Adschiri[b], Kaoru Tamada[a,b]

[a] *Kyushu University, Japan*
[b] *Tohoku University, Japan*

T-7 **Ultraviolet organic solid-state lasers based on novel spirobifluorene dimers**

Mizuki To[a], Yusei Kaya[a], Youhei Chitose[a], Cyril Poriel[b], Fabrice Mathevet[a,c], Chihaya Adachi[a]

[a] *Kyushu University, Japan*
[b] *Université de Rennes, France*
[c] *Sorbonne Université, France*

Quantum Nanostructures

T-8 **Elucidating Charge and Energy Transfer Mechanisms in $FAPbBr_3$ Perovskite Nanocrystal– Perylene Bisimide Systems**

Taku Yoshii, Tetsuo Yamaguchi, Sadahiro Masuo

Kwansei Gakuin University, Japan

T-9 **Evaluation of Energy Transfer Characteristics from Perovskite Nanocrystals with Different Crystal Shapes to Organic Molecules**

Rinsei Senoo, Tetsuo Yamaguchi, Sadahiro Masuo
Kwansei Gakuin University, Japan

T-10 **Size-Dependent Single-Photon Emission from Rhombicuboctahedral Perovskite Nanocrystals**

Erika Yoshida, Tetsuo Yamaguchi, Sadahiro Masuo
Kwansei Gakuin University, Japan

T-11 **Elucidation of the Energy Transfer Mechanism from $FAPbBr_3$ Perovskite Nanocrystals to Acene Molecules**

Hajime Shinoda, Tetsuo Yamaguchi, Sadahiro Masuo
Kwansei Gakuin University, Japan

Energy & Green Nanotechnology

T-12 **Synthesis and characterization of amino functionalized graphene oxide for microalgae harvest**

Nina Kumamoto, Kento Kojiro, Asami Ohtake, Koichi Sakaguchi
Saga University, Japan

T-13 **Synthesis of para-aramid and characterization of aramid nanofibers for carbon electrode additives**

Yuuna Nakamura, Saya Matsumoto, Asami Ohtake, Koichi Sakaguchi
Saga University, Japan

T-14 **Development of Ionomer-free Catalyst Layer using Pt Catalyst based on Acid-modified Carbon Black for PEMFC**

Dan Wu, **Tsuyohiko Fujigaya**
Kyushu University, Japan

T-15 **Theoretical investigation of the electronic structure and charge transfer in N_2O adsorption on an Ir cluster**

Nino Uchiyama[a], Tetsuya Taketsugu[a], Satoshi Hinokuma[b], Takeshi Iwasa[a]
[a] *Hokkaido University, Japan*
[b] *National Institute of Advanced Industrial Science and Technology (AIST), Japan*

T-16 **Interfacial engineering of 2D β-$Ni(OH)_2$-doped MgAl-LDH/Co_3O_4 S-scheme heterojunction for enhanced photo/electrocatalytic hydrogen evolution and Rhodamine B photodegradation**

Sneha Narayan Kulkarni, Lokanath N. K.
University of Mysore, India

T-17 **Boosting photocatalytic CO_2 reduction via single atom assisted nitrogen rich polytriazine**

Amol U. Pawar[a], Umapada Pal[b], Young Soo Kang[a]
[a] *Korea Institute of Energy Technology (KENTECH), Republic of Korea*
[b] *Benemérita Universidad Autónoma de Puebla, Mexico*

T-18 **Multicarbon (C1-C4) Alcohol Production from CO_2 via Photoelectrochemical Reaction Route**

Satyam Singh, Young Soo Kang
Korea Institute of Energy Technology (KENTECH), Republic of Korea

T-19 **Selective Photoelectrochemical CO_2 Reduction to Ethanol**

Min Seong Kim, Young Soo Kang
Korea Institute of Energy Technology (KENTECH), Republic of Korea

T-20 **Catalytic Pyrolysis of PP and HDPE over H-ZSM-5 Zeolite for the Selective Production of Gasoline and Diesel Range Hydrocarbons**

Yuting Peng, Upare Dipali Pravin, Young Soo Kang
Korea Institute of Energy Technology (KENTECH), Republic of Korea

T-21 **Microwave-Assisted Catalytic Conversion of Waste Plastics into Hydrogen and Carbon Nanomaterials**

Yan Luo, Youngseok Son, Young Soo Kang

Korea Institute of Energy Technology (KENTECH), Republic of Korea

T-22 **Thermally Induced Framework Defects in H-Beta Zeolites for Efficient Waste Plastic Upcycling**

Dipali P. Upare, Chul Wee Lee, Aqsa Khalid, Minjun Park, Young Soo Kang

Korea Institute of Energy Technology (KENTECH), Republic of Korea

T-23 **Alkyl sulfonated N-doped TiO_2 Hollow Nanosphere for Photocatalytic CO_2 Reduction Reaction**

Kyoung Mo Park, Amol Uttam Pawar, Young Soo Kang

Korea Institute of Energy Technology (KENTECH), Republic of Korea

Nanobio & Nanomedicine

T-24 **Pressure-Responsive Capsule Molecules for Acoustic-Wave-Driven Drug Delivery Systems**

Sota Aoki[a], Tomokazu Kinoshita[a], Tomoyuki Hamachi[b], Gaku Fukuhara[b]

[a] *Institute of Science Tokyo, Japan*
[b] *Kyushu University, Japan*

T-25 **Hydrostatic Pressure Sensing Using an Axially Chiral CPL Chemosensor**

Nagomi Mihama, Tomoyuki Hamachi, Gaku Fukuhara

Kyushu University, Japan

T-26 **Electromechanical Anisotropy of Lipid Bilayers under Horizontal and Vertical Electric Fields**

Hironori Kageyama[a], Maki Komiya[a], Eiji Yamamoto[b], Ayumi Hirano-Iwata[a]

[a] *Tohoku University, Japan*
[b] *Keio University, Japan*

T-27 **Quantitative Analysis of Membrane Proteins in Exosomes Derived from Cultured Breast Cancer Cells Using Plasmon-Enhanced Fluorescence Imaging**

Rina Nagayama[a], Tatsuki Iwamura[a], Yasunori Nawa[a], Hajime Shigeto[b], Shohei Yamamura[b], Keiko Tawa[a]

[a] *Kwansei Gakuin University, Japan*
[b] *National Institute of Advanced Industrial Science and Technology (AIST), Japan*

T-28 **Inconsistent plasmonic-pitch dependence of fluorescence and chemiluminescence enhancement of luminol on the plasmonic chip**

Nana Tomita[a], Yasinori Nawa[a], Masaki Itatani[b], Tomohiro Fukushima[b], Kei Murakoshi[b], Keiko Tawa[a]

[a] *Kwansei Gakuin University, Japan*
[b] *Hokkaido University, Japan*

T-29 **Characterization of Biomineralization Using Raman and Infrared Spectroscopy**

Hiromi Kimura-Suda[a], Teppei Ito[a], Fumiya Nakamura[a], Yuya Kanehira[a], Hideyo Horiuchi[a], Tomomi Masuya[a], Syota Hironaka[a], Chihiro Kawamoto[a], Miu Murao[a], Hideyuki Mitomo[b], Taishi Yokoi[c], Kuniharu Ijiro[b]

[a] *Chitose Institute of Science and Technology, Japan*
[b] *Hokkaido University, Japan*
[c] *Institute of Science Tokyo, Japan*

T-30 **Formation, Stability and Structural Changes of Protein Corona on Nanoparticles Studied by Vibrational Spectroscopy**

Kateřina Hofbauerová, Vladimír Kopecký Jr., Anna Fučíková

Charles University, Czech Republic

T-31 **Label-Free Single-Particle Characterization of Lipid Nanoparticles via a Plasmonic Nanopore**

Sota Manabe, Keisuke Imaeda, Kosei Ueno, Sou Ryuzaki

Hokkaido University, Japan

T-32 **From Pandemic to Precision Medicine: Multifunctional mRNA Delivery Systems for Vaccines and Cancer Therapy**

Sahil Chahal, In-Kyu Park

Chonnam National University, Republic of Korea

Nanosensing & Probe Microscopy

T-33 **Development of an in-situ TEM holder for probing mechanochemical responses under controlled vibration**

Yuki Nishita[a], Koji Harano[b,c], Ovidiu Cretu[b], Han Zhang[b], Kohei Aso[a], Yoshifumi Oshima[a]

[a] *Japan Advanced Institute of Science and Technology, Japan*
[b] *National Institute for Materials Science (NIMS), Japan*
[c] *Institute of Science Tokyo, Japan*

T-34 **A Bipedal DNA Walker-Based Ratiometric Fluorescence Platform for Intracellular miRNA-21 Analysis**

Wenting Wei, Han Lin, Kuniharu Ijiro, Hideyuki Mitomo

Hokkaido University, Japan

T-35 **Adsorption-Site-Dependent Field Emission Patterns of Fullerene Molecules on Tungsten Tip Apexes**

Ryoto Sasaki, Masahiko Tomitori, Yoshifumi Oshima

Japan Advanced Institute of Science and Technology, Japan

T-36 **Morphological Engineering of Block Copolymer Architectures for Uniform Surface-Enhanced Raman Scattering Platforms**

Wonsik Kim, Jang Hwan Kim

Ajou University, Republic of Korea

T-37 **High-Sensitivity Plasmonic Immunosensing Using Ultra-Small Antibodies**

Saki Toda[a], Abhinav Sharma[a], Takuo Tanaka[a,b], Kenta Terai[a], Taka-aki Yano[a,b]

[a] *Tokushima University, Japan*
[b] *RIKEN, Japan*

T-38 **Near-field light-molecule interaction Hamiltonian for overcoming the scale gap between metal nanostructures and molecules**

Risa Amano, Tetsuya Taketsugu, Takeshi Iwasa

Hokkaido University, Japan

Nano/Micro Devices & Flexible Electronics

T-39 **Elastic Organic Semiconducting Single Crystals Enabled by Chalcogen-Bond Engineering**

Subham Ranjan, Yusei Tanaka, Takuma Yasuda

Kyushu University, Japan

T-40 **Gate-Tunable Photodetector and High-Mobility Ambipolar Transistor with Ion-gel Gate Dielectrics**

Gwangtaek Oh, Sohwi Kim, Woohyeon Ryu, Jihoon Jeon, Donghyeok Jeong, Jiyeong Kim, JeongEun Oh, SeoYul Lim, Bae Ho Park

Konkuk University, Republic of Korea

T-41 **A Simple Method to Directly Measure Trap States of Electronic Materials Using Finite-Difference Photoelectron Yield Spectroscopy**

Kasumi Koshiba, Manato Tateno, Ryo Ozaki, Hirohiko Fukagawa, Hisao Ishii

Chiba University, Japan

Nanosynthesis & Nanofabrication

T-42 **Micelle-Like Assembly of Atomically Dispersed Cu(I)–Thiolates into Luminescent Hollow Supracolloidal Architecture**

Koustav Sahoo[a], Shun Ito[b], Tapu Raihan Gazi[a], Gargi Mukherjee[a], Ravi Kumar[c], Souvik Bhadra[a], Rajarshi Samanta[a], Kaustava Bhattacharyya[b], Nonappa[d], Tatsuya Tsukuda[b], Indranath Chakraborty[a]

[a] *Indian Institute of Technology Kharagpur, India*
[b] *The University of Tokyo, Japan*
[c] *Homi Bhabha National Institute, India*
[d] *Tampere University, Finland*

T-43 **Light-Controlled Adsorption of Spiropyran-Modified Quantum Dots on Mesoporous Silica**

Sho Okamoto, Tetsuo Yamaguchi, Sadahiro Masuo

Kwansei Gakuin University, Japan

T-44 **Self-Assembled Block Copolymer Nanostructures for Multipurpose Nanoscale Physical Unclonable Functions**

Kyumin Kang, Jang Hwan Kim

Ajou University, Republic of Korea

T-45 **Hexagonal boron nitride growth on single-crystalline Fe-Ni(111) foil**

Yui Shimomura, Takara Okonai, Satoru Fukamachi, Hiroki Ago

Kyushu University, Japan

T-46 **Fabrication of Perovskite Nanorods Using Cholesterol Fibers as Templates**

Shota Yamamoto, Tetsuo Yamaguchi, Sadahiro Masuo

Kwansei Gakuin University, Japan

T-47 **Application of CVD-grown hBN on FeNi alloy films to magnetic tunnel junction devices**

Ayato Takazaiku, Satoru Emoto, Shunsuke Masuda, Satoru Fukamachi, Hiroki Ago

Kyushu University, Japan

T-48 **Trace-Water-Assisted Formation of Ultrathin SiO_2 Shells on Lead Halide Perovskite Nanocrystals**

Taiki Matsumiya, Takayuki Chiba

Yamagata University, Japan

T-49 **From Nanofabrication to Pilot Upscaling: Electrospun Nanofibrous Adsorber for Lithium Recovery**

Yejin Liang, Naeem Nadzri, Yu Jie Lim, Kunli Goh, Rong Wang

Nanyang Technological University, Singapore

Flexible Nanoelectronics

T-50 **Effect of CFE Molecular Units on the Piezoelectric Response of P(VDF-TrFE-CFE) Thin Films**

F. Aobara, S. Kawano, Y. Hidaka, K. Goushi, K. Ishida

Kyushu University, Japan

T-51 **Sensitivity Enhancement of Flexible P(VDF-TrFE) Infrared Sensors via CB Lamination**

K. Miki, S. Kawano, Y. Hidaka, K. Goushi, K. Ishida

Kyushu University, Japan

Organic & Perovskite Optoelectronic Devices

T-52 **Development of Narrowband Organoboron Emitters with Fast Reverse Intersystem Crossing Induced by Dibenzotellurophene**

Peiyuan Yang, Jun Hyeon Lee, Kotone Urano, Takuma Yasuda

Kyushu University, Japan

T-53 **Organic Solvent-Induced Chiral Resolution of Hexagonal Perovskite $CsCuCl_3$**

Suwan Yamada, Tetsuya Kida, Yusuke Inomata
Kumamoto University, Japan

T-54 **Manipulating the Vibronic Competition of Amplified Spontaneous Emission from Amorphous Organic Semiconductor Thin Films**

Shota Fukuma[a], Jean Velten[b], Chihaya Adachi[a]
[a] *Kyushu University, Japan*
[b] *Johannes Gutenberg University Mainz, Germany*

T-55 **Impact of Spontaneous Orientation Polarization in TADF Films on EL/PV Performance**

Shintaro Mitsui[a], Seita Kyogoku[a], Masahiro Ohara[b], Takeshi Okada[c], Nobumichi Arai[c], Taku Oono[d], Takahisa Shimizu[d], Takuji Hatakeyama[e], Hisao Ishii[a], Hirohiko Fukagawa[a]
[a] *Chiba University, Japan*
[b] *The University of Osaka, Japan*
[c] *Tosoh Corporation, Japan*
[d] *NHK Science & Technology Research Laboratories, Japan*
[e] *Kyoto University, Japan*

T-56 **Ion-Exchange-Assisted Crystallization of $CsSnBr_3$ Nanocrystals toward Lead-free Light-Emitting Diodes**

Amu Sato, Ren Kamijo, Takayuki Chiba
Yamagata University, Japan

T-57 **Composition and Irradiation Intensity Dependence of Photoinduced Halide Segregation in Mixed-Halide Perovskite Nanocrystal Films**

Fuga Suzuki, Yuto Kajino, Yukiko Aida, Yusuke Arima, Kaoru Tamada
Kyushu University, Japan

T-58 **Dual Role of g-C_3N_5 as Packing Refiner and Charge Trapper in DPP–TTT Phototransistors Visualized by Operando EFISHG**

Yuta Doi[a], Radhe Shyam[b], Taishi Noma[a], Dai Taguchi[a], **Takaaki Manaka**[a]
[a] *Institute of Science Tokyo, Japan*
[b] *Lodz University of Technology, Poland*

T-59 **Optically Controlled Memory Dynamics in Floating-Gate Organic Transistor Memories for Neuromorphic Information Processing**

Kotaro Kiyota[a], Shusei Hattori[a], Takashi Kobayashi[a], Hiroyoshi Naito[a,b], Takashi Nagase[a]
[a] *Osaka Metropolitan University, Japan*
[b] *Ritsumeikan University, Japan*

T-60 **Electroluminescent and Photovoltaic Characteristics of Upconversion Organic Heterojunction Devices Using Soluble Fullerene Acceptors**

Takuma Okaishi[a], Kazuki Kojima[a], Kazuma Terada[a], Takashi Kobayashi[a], Hiroyoshi Naito[a,b], Takashi Nagase[a]
[a] *Osaka Metropolitan University, Japan*
[b] *Ritsumeikan University, Japan*

AI-driven Nanoscience & Nanotechnology

T-61 **Mapping Korea's Nanotechnology R&D Landscape through Classification and Visualization of NTIS Data**

Hansu Hwang, Dong Chan Lim
Korea Institute of Materials Science (KIMS), Republic of Korea

T-62 **The 6th Korea Nanotechnology Initiative: Toward a Mission-Driven, AI-Enabled Nanotechnology Innovation System**

Gaeun Shin, Junsu Lee, Hansu Hwang, Dong Chan Lim
Korea Institute of Materials Science (KIMS), Republic of Korea

T-63 **Enhanced light element analysis using self supervised machine learning in advanced semiconductor structure analysis**

Taeseok Seong, **Seonje Kim**, Heebeom Lee, Yuseong Jang, Chulgi Song

Lam Research Korea Technology Center, Republic of Korea

T-64 **An Introduction of AI-Native Autonomous Laboratory Program for Advanced Nanobiotechnology in Republic of Korea**

Junhwan Lee

Korea Institute of Science & Technology Evaluation and Planning (KISTEP), Republic of Korea

Energy & Green Nanotechnology (Additional Presentations)

T-65 **Atomic-Scale Copper Clusters on π-Extended Poly(heptazine imide) for Selective Solar CO_2-to-Ethanol Conversion**

Khan Muhammad Zaeem Azam, Ramesh Poonchi Sivasankaran, Amol Uttam Pawar, Sung-hoon Oh, Young Seok Son, Minseong Kim, Kyoung Mo Park, Young Soo Kang

Korea Institute of Energy Technology (KENTECH), Republic of Korea

T-66 **From Polymer Chain Scission to Fuel-Range Hydrocarbons: Acidity-Controlled Polypropylene Upcycling over FAU Zeolites**

Aqsa Khalid, Dipali P. Upare, Chul Wee Lee, Young Soo Kang

Korea Institute of Energy Technology (KENTECH), Republic of Korea

Sharing innovation moments with vacuum technology & glove box technology

ALS Technology Co., Ltd.

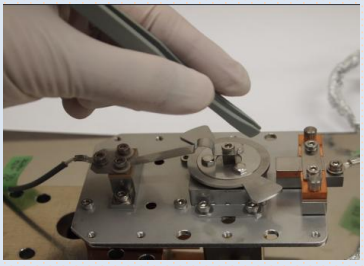
Rotary Kelvin Probe system RKP−1

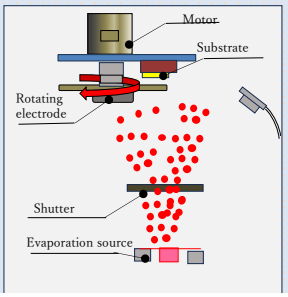
Realizing high-precision, real-time measurement of work function and surface potential !

Main applications

・Measurement of work function (Fermi level) of metal and semiconductor surfaces
・Evaluation of charge transfer (CT) formation depth at interfaces

■ High−resolution measurement using a high−precision rotating electrode
■ Can be used in vacuum
・No influence from the atmosphere, stable measurement possible
■ It is possible to evaluate band bending at heterointerfaces and orientation polarization of polar molecular deposition films.

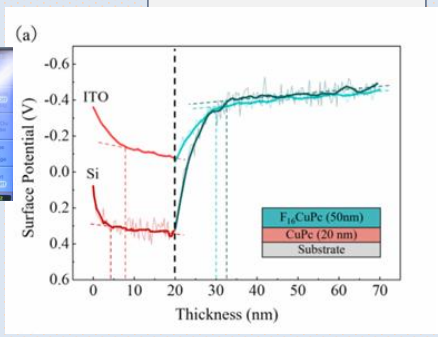




New features ! TEST MODE

■The error in Vcpd measurements value can be measured in real time and checked with high accuracy.
■ With the RKP−1, the measured Vcpd value at 5mV that an accuracy error was approximately 0.6mV .
It was confirmed less than 1% could be evaluated at 10mV or higher





The 73rd JSAP Spring Meeting 2026 /Chihaya Adachi Laboratory ,Kyushu University

Glovebox Sagami

Compact with high performance

■ Affordable price
■ Newly developed compact gas circulation purifier
Oxygen concentration ≦1PPM Dew point ≦1PPM
■ Automatic regeneration by PLC
■ High safety against N2
・In the unlikely event of an N2 gas leak, the main valve is automatically shut off.
・The inside N2 pressure is automatically controlled (APC)
■ The inside of the front resin panel is specially coated.
Improved solvent resistance and anti−static properties.
■ Expandability
Can be connected to vacuum systems.
■ Optional : Freezer, Air conditioner, Activated carbon trap etc



2179−2 Kamimizo, Chuo−ku, Sagamihara−shi, Kanagawa, 252−0243, Japan
https://als−technology.com/index.htm TEL:+81−42−713−3018 FAX:+81−42−713−3019

ALS Vacuum is our business

HAMAMATSU
PHOTON IS OUR BUSINESS

Absolute PL quantum yield measurements for various challenging applications !

Measurement capabilities can be expanded through upgrades.
Two types are available, 《300 nm ~ 950 nm》 and 《400 nm ~ 1100 nm》

Measurement function 1
Near-infrared up to 1650 nm

Measurement function 2
Low quantum yield 1% or less

Measurement function 3
Upconversion emission quantum yield



Quantaurus-QY® Plus

UV-NIR absolute PL quantum yield spectrometer

Visit our website for more details on material evaluation



Examples of luminescent materials and devices

Photoluminescence Electro-luminescence
Bioluminescence Chemical luminescence

Measurement methods: examples and products

Spectrum measurement
Photoluminescence quantum yield
Fluorescence lifetime measurement
Transient absorption

Evaluation of luminescent materials Special Site

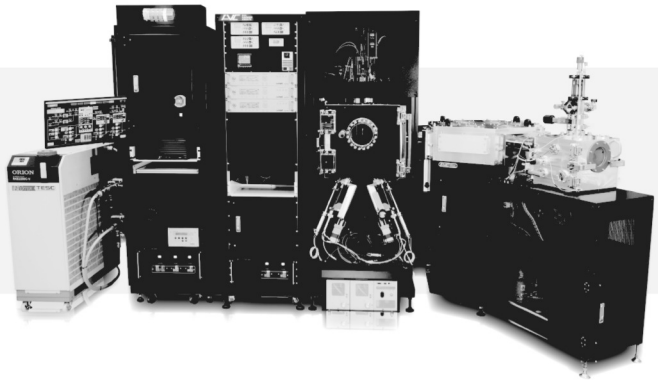
HAMAMATSU PHOTONICS K.K.
www.hamamatsu.com

Systems and Laser Sales Department
Telephone: (81)53-431-0124, E-mail: export@sys.hpk.co.jp

High-Throughput Deposition System

High-Speed Automated Recipe Processing for 10 Substrates

- **Our unique automation system enables high-throughput sample processing in a short time**
- **Three-chamber configuration centered around the transfer chamber (deposition chamber / transfer chamber / elevator chamber)**
- **Fully automated from substrate transfer to deposition, enabling a wide range of sputter deposition processes**



key point!

Control System

PLC-based integrated control of all processes for fully automated operation

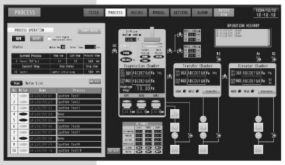
Integrated control of deposition, substrate transfer, vacuum pumping, and atmospheric venting

Easy operation from substrate selection to transfer and deposition using recipe editing software

Supports importing and automatic execution of deposition recipes generated by external AI systems

Parameter settings available not only for deposition, but also reaction and analysis processes

Process results are automatically transferred to and stored on the host PC





Deposition Chamber

Up to four cathode sources can be mounted

Automatic adjustment of substrate-to-target distance under vacuum

Equipped with up to four high-performance RF power supplies and automatic matching systems (Compatible with a wide range of targets, including metals, semiconductors, and ceramics)

Oxygen-resistant heater enables substrate heating up to 500°C

Continuous substrate rotation ensures uniform film deposition

Expandable up to four gas lines

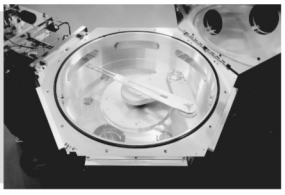


Transfer Chamber

Stable, automated substrate transfer using a high-precision vacuum robot

Hexagonal chamber design allows expansion with up to three additional chambers, such as reaction and analysis chambers

Top-opening hatch design for easy maintenance



Elevator Chamber (L/L Chamber)

Vacuum elevator equipped with a cassette for up to 10 substrates

Rapid pump-down to 10^{-4} Pa within approx. 10 minutes

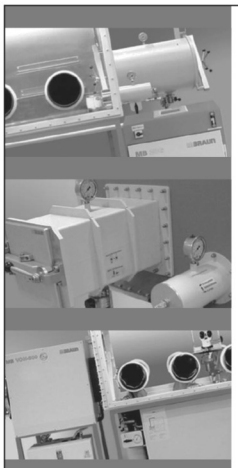
Optional transfer vessel enables substrate loading and unloading under inert gas without air exposure



R-DEC Co., Ltd.

[Head Office]
1-16-10 Ninomiya, Tsukuba, Ibaraki 305-0051
TEL: +81-29-858-0211 FAX: +81-29-855-9877

[Tokyo Branch]
Hongo Kobayashi Build. 5F, 3-15-4 Hongo, Bunkyo-ku, Tokyo 113-0033
TEL: +81-3-5805-0330 FAX: +81-3-5805-0331



INERTGAS TECHNOLOGY

turning ideas into solutions

MBRAUN

グローブボックスシステム

◎ 視野が広く機能的なデザイン
◎ Eco Modeを採用
◎ タッチパネルによるPLC制御
◎ 再生可能な精製塔
◎ 酸素・水分共に0.1ppm以下
◎ カプセル型大容量ブロワー採用
◎ フットペダル付き
◎ 可変可能な棚
◎ 自動内圧調整





オプション（アクセサリー）

◎ ミニアンティチャンバー
（⌀150mm、長さ400mm）
◎ 酸素計
◎ 水分計
◎ 冷蔵庫（-35℃）
◎ ソルベント・トラップ
◎ 顕微鏡（窓付又はCCD型）
◎ 角型アンティチャンバー
◎ ガラスキャピラリー封入ヒーター
◎ 各種フィールドスルー

有機溶媒精製装置

◎ 安全な高純度の溶媒精製
◎ 酸素・水分共に数ppm以下に溶媒精製
◎ 800リットルの精製能力
◎ 1溶媒から設置可能
◎ グローブボックスと接続可能なシステム



MB-SPS-5（5溶媒用）



グローブボックス内に接続



MB-SPS-Compact
（卓上型1溶媒用）

日本総代理店

株式会社 ブライト

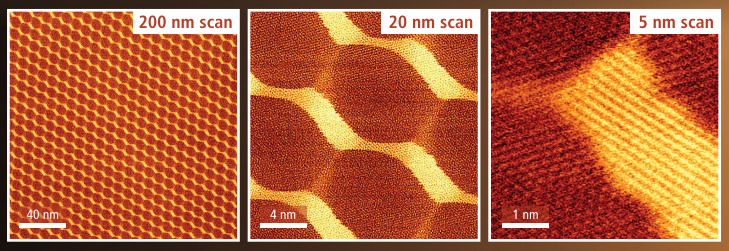
本　社　〒351-0114　埼玉県和光市本町6-32 吉川ビル
TEL：048-450-5770　FAX：048-450-5771

大阪営業所　〒573-0032　大阪府枚方市岡東町4-8 ムッシュビル5階
TEL：072-861-0881　FAX：072-861-0882
URL：http://www.bright-jp.com/

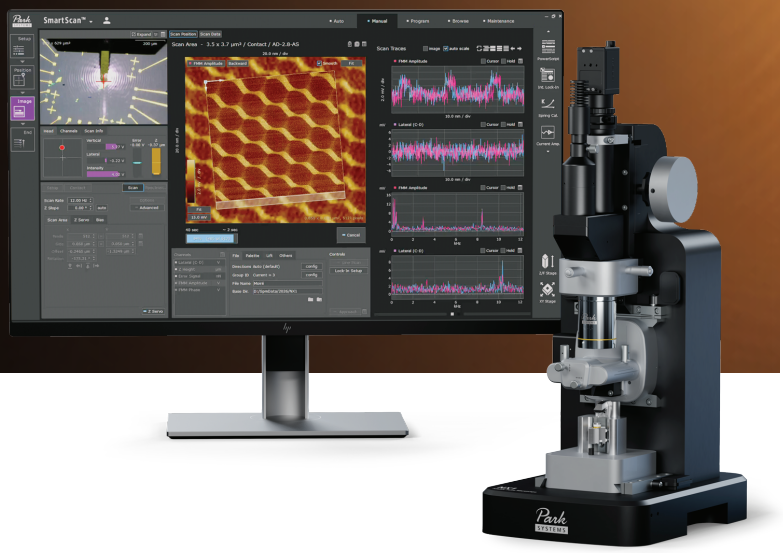
究極の分解能を追求したAFM



FMM振幅



ねじれ二層グラフェンのモアレパターンと原子格子を高分解能で観察。



Park NX1

最高分解能を実現するAFM

- **優れた測定安定性**
  ノイズを極限まで抑えた設計とコンパクトなメカニカルループ、
  高い熱安定性により、大気中でも高い再現性を備えた原子分解能測定を実現。

- **先端材料研究に最適化されたAFM**
  原子格子からモアレ構造まで、さまざまなナノスケール構造を高分解能で観察し、次世代の材料研究を支援。

- **原子分解能測定を追求したAFM設計**
  コンパクトで高剛性なボディに、コバールコア、XYZチューブスキャナー、
  スティックスリップ方式の位置決め機構を搭載。原子スケール測定に求められる高い安定性と精度を実現

- **使いやすさと拡張性を両立**
  容易なプローブ交換や自動レーザーアライメントなどの使いやすさに加え、
  多彩なAFMモードとqPlusセンサーへの対応により、
  幅広い研究アプリケーションをサポート。

www.parksystems.com/jp

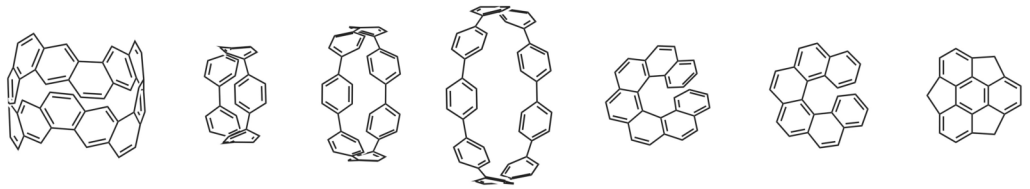
Park SYSTEMS

Research Reagents for Nanoscience & Organic Electronics

TCI MATERIALS

Nanocarbons Materials

- Nanocarbon Unit Structures
- Fullerens
- Graphenes / Graphene Oxides
- Carbon Nanotubes (CNTs) / CNT Dispersants



Carbon Nanobelt [I1078] | **5CPP** [C2931] | **7CPP** [C3571] | **9CPP** [C3465] | **[7]Helicene** [H1911] | **[6]Helicene** [H1894] | **Sumanene** [S0888]

Perovskite Solar Cell Materials

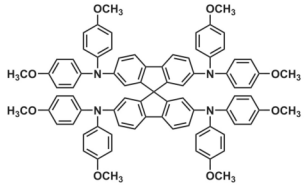
- Perovskite Precursor Materials
- Hole Correcting SAM Materials
- Carrier Transport / Doping Materials

PbI_2

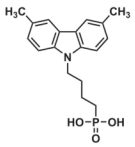
Lead(II) Iodide
(99.99%, trace metals basis)
[L0279]

SnI_2

Tin(II) Iodide
[T3449]

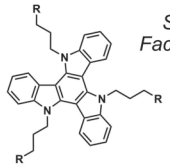


Spiro-OMeTAD
[T3672]



Me-4PACz
[M3359]

SAM Forming Reagent with Face-on Orientation to Substrate

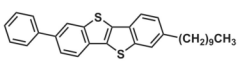


New R = $PO(OH)_2$ **PATAT-C3 [P3172]**
R = COOH **CATAT-C3 [C4192]**

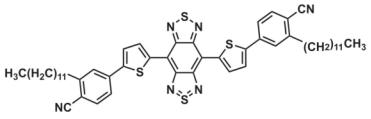
OFET Materials

- p-type / n-type Organic Semiconductors
- High-Purity Surface Treatment Agents

Quality Assurance by In-House Measured Mobility



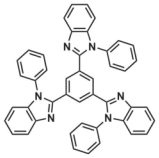
Ph-BTBT-10 [D5491]
$\mu_{h,\,FET} \geq 10.0\ cm^2/Vs$



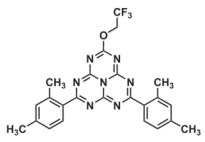
TU-3 [T3924]
$\mu_{e,\,FET} \geq 0.5\ cm^2/Vs$

OLED Materials

- Red / Green / Blue Emitting Materials
- Hole / Electron Transport Materials



TPBi [T3537]

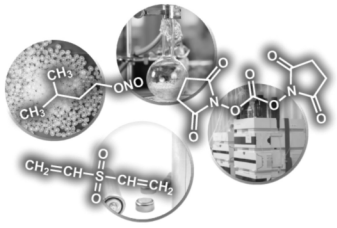


$HzTFEX_2$ [H1933]

Custom Synthesis & Bulk Chemicals

- ✓High Purity Chemicals
- ✓Scale-Up Supply
- ✓Custom Synthesis / Specification

- Wide range of building blocks / catalysts
- World-wide sourcing
- From research through production scale
- High purity grades with metal control

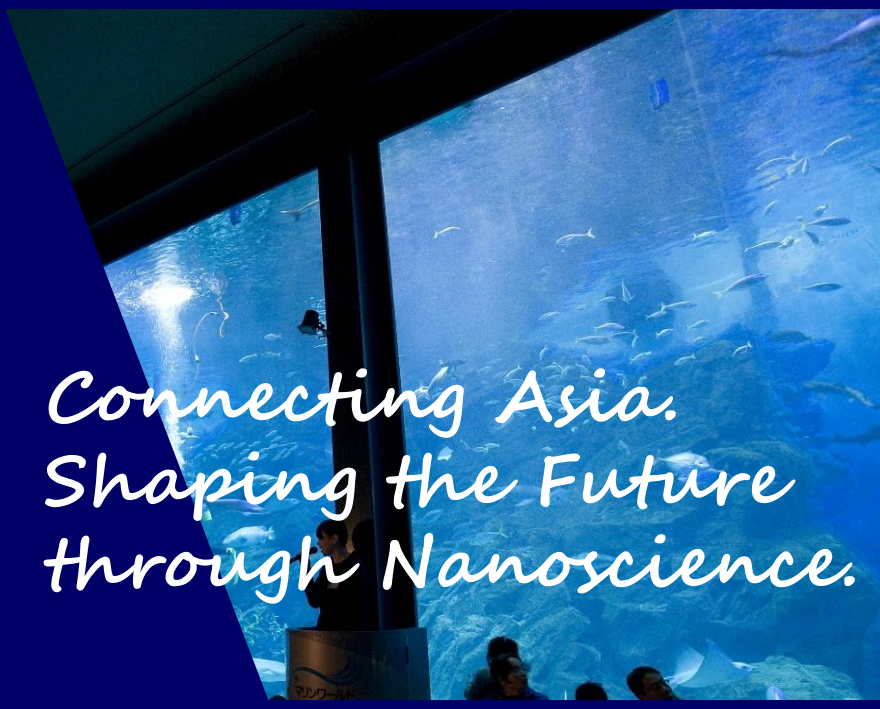


https://bit.ly/4xGWSwc

or

For More Detail ▶▶▶ TCI custom

TCI AMERICA Tel: 800-423-8616 • 503-283-1681 E-mail: Sales-US@TCIchemicals.com
TCI EUROPE Tel: +32 (0)3 735 07 00 E-mail: Sales-EU@TCIchemicals.com
TOKYO CHEMICAL INDUSTRY CO., LTD. Tel: +81-3-5640-8878 E-mail: globalbusiness@TCIchemicals.com



Connecting Asia.
Shaping the Future
through Nanoscience.

AsiaNANO2026 Program Book
Published by the AsiaNANO2026 Organizing Committee.
Publication date: November 2, 2026.