ADVANCE PROGRAM

AM-FPD 26

THE THIRTY-THIRD INTERNATIONAL WORKSHOP ON

ACTIVE-MATRIX FLATPANEL DISPLAYS AND DEVICES

-TFT TECHNOLOGIES AND FPD MATERIALS-

July 7 - 10, 2026
Ryukoku University Fukakusa Campus Jojukan, Kyoto, Japan

Sponsorship:
International Society of Functional Thin Film Materials & Devices

Technical Sponsorship:
The Electrochemical Society - Electronics and Photonics Division -
The Electrochemical Society - Japan Section -
IEEE Electron Devices Society

In cooperation with:
The Japan Society of Applied Physics
The Institute of Electronics, Information and Communication Engineers
The Institute of Image Information and Television Engineers
The Institute of Electrical Engineers of Japan
The Chemical Society of Japan
The Laser Society of Japan
The Electrochemical Society of Japan
Japanese Liquid Crystal Society
Thin Film Materials & Devices Meeting
Society of Automotive Engineers of Japan, Inc.
Society for Information Display
The Japan Photovoltaic Society
Molecular Electronics and Bioelectronics

GENERAL INFORMATION

The 33rd International Workshop on Active-Matrix Flatpanel Displays and Devices (AM-FPD '26) will be held at the Jojukan, Fukakusa Campus of Ryukoku University, from July 7 (Tuesday) to July 10 (Friday), 2026. This international workshop was established in 1994 to present the latest research and development in active-matrix liquid crystal display (AMLCD) technologies and their applications. In addition to AMLCDs and AMOLEDs, the scope has been expanded to include novel flat-panel displays, display materials, flexible technologies, related physical phenomena, and novel thin-film devices such as thin-film transistors (TFT), photovoltaic (PV) technologies, and other thin-film materials and devices (TFMD).

We hope that you will attend and enjoy our workshop.

WORKSHOP THEME

AM-FPD '26 will prepare an attractive program focusing on ***"Towards a Smarter, Sustainable World".***

SYMPOSIA

In addition to the regular sessions, we will organize symposia in which speakers will discuss attractive and interesting themes.
Special Symposium on Vehicular Displays will focus on exciting developments paving the way for the future of in-vehicle displays. The automotive industry is currently experiencing profound changes in its business environment, which will also have a strong impact on design and requirements of the human-vehicle interface, specifically displays.
Symposia, "***Latest Technologies in Flexible Electronics***", "***Emerging Technologies for Advanced TFTs and Integrated Systems***", ***"Advanced PV Technologies for Circular Economy", "Advanced PV Materials for Next-Generation Solar Cells"*** and "***Emerging Frontiers in Advanced Thin-Film Devices***" are scheduled. Invited speakers will talk about the latest topics from the viewpoints of functional materials, device structures, fabrication processes, driving schemes, circuit technologies, etc.

PRESENTATION TIMES FOR SPEAKERS

	Total	Presentation	Discussion
Keynote	45 min.	40 min.	5 min.
Special Symposium	40 min.	35 min.	5 min.
Invited	25 min.	20 min.	5 min.
Symposium	30 min.	25 min.	5 min.
Oral	20 min.	15 min.	5 min.
Late News	15 min.	12 min.	3 min.
Poster	17:00-18:30 July 9		

THE PROCEEDINGS OF AM-FPD '26

The Proceedings of AM-FPD '26 will be distributed in electronic form starting July 7.

LANGUAGE

The official language of the workshop is English.

REGISTRATION

For registration, please access our online registration page (https://www.amfpd.jp), enter your information, and complete the payment. The registration fee is discounted until June 15 (JST).

All fees should be paid in Japanese yen by credit card. VISA, Mastercard, AMEX, JCB, Diners Club, and Discover are accepted. Apple Pay and Google Pay are also available.

Once the payment is completed, you can download the receipt and your name badge. Please print the plate, bring it to the venue, and present it at the reception desk to receive your conference materials. If you are unable to print it, please contact the AMFPD Secretariat.

<table>
<tr><th>Category</th><th>Advance Registration Fee until June 15, 2026 (JST)</th><th>Registration Fee</th><th>[One day] Special Symposium Only*2</th></tr>
<tr><td colspan="3">WORKSHOP*1</td><td></td></tr>
<tr><td>Member*3</td><td>¥50,000</td><td>¥55,000</td><td rowspan="3">¥35,000</td></tr>
<tr><td>Non-Member</td><td>¥52,000</td><td>¥57,000</td></tr>
<tr><td>Student</td><td>¥20,000</td><td>¥22,000</td></tr>
<tr><td>Senior*4</td><td colspan="3">¥25,000</td></tr>
<tr><td colspan="4">TUTORIAL</td></tr>
<tr><td rowspan="2">Regular</td><td>Tutorial Only</td><td colspan="2">¥7,000</td></tr>
<tr><td>Conference Attendee</td><td colspan="2">¥5,000</td></tr>
<tr><td colspan="2">Student</td><td colspan="2">Free</td></tr>
</table>

*1 The registration fee for the workshop includes admission to all sessions and the proceedings.
*2 One-day pass for the “Special Symposium Only” is available for attending the Special Symposium on Wednesday, July 8. The proceedings of AM-FPD '26 are included in the fee.
*3 The member of the societies which sponsor and support AM-FPD '26.
*4 The senior category is for attendees who are 65 years of age or older.

BANQUET

The banquet will be held on July 8 from 17:30 to 19:30 at “Ryukoku Live Theater” on the 2nd floor of Jojukan. After the banquet, a chartered bus will take you to JR Kyoto Station.

VISAS

All foreign visitors entering Japan must have a valid passport. Visitors from countries requiring a visa should apply at a Japanese consular office or diplomatic mission in their home country.

CANCELLATION POLICY

In case of cancellation after payment, please contact the Secretariat (secretariat@amfpd.jp).

Cancellation Charges

Before June 15: 6% cancellation fee

On or after June 16: 100% of the registration fee (NO REFUND)

Endorsement Letter

The endorsement letters to IEEE Journal of the Electron Devices Society (J-EDS) or ECS Journal of Solid State Science and Technology (JSS) will be issued for excellent papers, which are selected through the internal rating process of the AM-FPD Program Committee.

Please select the journal for which you wish to receive an endorsement letter when you submit a paper to AM-FPD.

1. Endorsement letters will be issued to excellent papers from the AM-FPD committee after AM-FPD '26 workshop is held.

2. After you receive the endorsement letter,
   - Please attach your AM-FPD '26 paper and the endorsement letter when submitting your manuscript to each journal,
   - Please make sure to include the AM-FPD '26 paper in your reference list when reusing contents such as figures or tables.

You need to register your ID and password before submitting your manuscript to each journal.

IEEE XPLORE DIGITAL LIBRARY

The Proceedings of AM-FPD '26 will be published in the IEEE Xplore digital library approximately two months after the workshop.

TUTORIAL

These classes are designed for a wide range of participants, from beginners to researchers who wish to review their knowledge. Presentations and materials will be provided in Japanese. These classes are available for an additional fee (see page 2).

Tuesday, July 7 (10 : 00 ～ 12 : 00)

10:00 (T-1)

Chairperson： N. Matsuki, *Kanagawa University, JAPAN*

Introduction to Crystal Growth in Perovskite Solar Cells
T. Miyadera, *Saitama University, JAPAN*

11:00 (T-2)

Chairperson： T. Nagase, *Osaka Metropolitan University, JAPAN*

Next-Generation Oxide TFTs: A Comprehensive Journey from IGZO to HMO
M. Furuta, *Kochi University of Technology, JAPAN*

AWARDS

Papers presented at this workshop will be considered for “AM-FPD Paper Awards”, “AMFPD-ECS Japan Section Young Researcher Award”. The awards will be presented at the award ceremony in AM-FPD '27 workshop.

AM-FPD Paper Awards

“Best Paper Award”, “Poster Award”, “Student Paper Award” and “Young Researcher Award” will be presented. The winners will be selected by AMFPD '26 Award Committee chaired by Professor Yukiharu Uraoka (*NAIST*).

AM-FPD '25 PAPER AWARDS

Best Paper Award

(1_3) **Advancing CIGSe Solar Cell Efficiency Under Low-Temperature Deposition via Ag Additives**
Yosuke Abe[1,*)], Takahito Nishimura[1)] and Akira Yamada[1)]
[1)] *Institute of Science Tokyo, JAPAN*

Poster Paper Award

(P_33) **Emulating Synaptic Plasticity in Flexible Organic Transistors with Edible Semiconductor Dielectric Pair**
Somnath Bhattacharjee[1,*)] and Shree Prakash Tiwari[1)]
[1)] *Indian Institute of Technology Jodhpur, INDIA*

(P_L5) **Effect of Suspended Annealing with Water-Vapor-Added NH_3 Gas on Reduction of Residual OH Groups at < 200 °C in Si Oxide Films**
Susumu Horita[1,*)]
[1)] *Japan Advanced Institute of Science and Technology, JAPAN*

Student Paper Award

Harshita Rai, *Kyushu Institute of Technology, JAPAN*
(3_3) Exploring the Potential of SWNT/$Mo_{72}V_{30}$ Thin Films for In-Materio Reservoir Computing

AMFPD-ECS Japan Section Young Researcher Award

Auttaphon Ploypradit, *Tokai University, JAPAN*
(S1_3) Effect of Voids within Copper Iodine Hole Transport Layer Using the Ethanol/Iodine Solution Method in Inverted Planar Perovskite Solar Cells

ADVANCE PROGRAM

Date: Tuesday, July 7

Opening Session (13:30～14:00)

Chairperson: Y. Uraoka, *Nara Institute of Science and Technology, JAPAN*

Welcome Address

H. Hamada, *FTFMD Association JAPAN*

Award Presentation

Keynote Address (14:00～15:30)

Chairpersons: T. Nakamura, *Kyoto University, JAPAN*
T. Kamiya, *Institute of Science Tokyo, JAPAN*

14:00-14:45 K_1 Frontiers of Light Energy Conversion: A Future Society Enabled by Perovskite Solar Cells (INVITED)
H. Segawa[1,*)]
[1)] The University of Tokyo, JAPAN

14:45-15:30 K_2 Oxide Semiconductors Beyond Displays: Toward the 3D Future of Electronics (INVITED)
Y. Uraoka[1,*)], T. Takahashi[1)] and M. Kobayashi[2)]
[1)] Nara Institute of Science and Technology, JAPAN, [2)] The University of Tokyo, JAPAN

— ***Coffee Break*** —

Symposium 1 : Latest Technologies in Flexible Electronics (15:50～17:20)

Chairpersons: R. Hattori, *Kyushu University, JAPAN*
M. Kimura, *Ryukoku University, JAPAN*

15:50-16:20 S1_1 Skin-Conformable Sensors and Displays Using Stretchable Electronic Materials (INVITED)
N. Matsuhisa[1,*)]
[1)] The University of Tokyo, JAPAN

16:20-16:50 S1_2 Roll-to-Roll Direct Imaging Exposure System and Its Application to Flexible Electronics Manufacturing (INVITED)
S. Koizumi[1,*)], M. Hori[1)], M. Nakazumi[1)] and Y. Kito[1)]
[1)] Nikon Corporation, JAPAN

16:50-17:20 S1_3 Highly Stretchable Backplane Technology for Form-free Deformable Displays (INVITED)
M. Miyakawa[1,*)], H. Tsuji[1)], T. Takei[1)], K. Tsubouchi[1)], T. Yamamoto[2)] and S. Aihara[1)]
[1)] NHK Science & Technology Research Laboratories, JAPAN, [2)]NHK Foundation, JAPAN

Date: Wednesday, July 8

The Special Symposium :

Human-Friendly In-Vehicle Displays, Future System Technologies for Quality Enhancement (9:30～17:20)

Greeting (9:30～9:40)

B. Straub, *Automotive Display Technology, GERMANY*

Special Symposium 1 : Automotive Display Market Strategies and Display Quality Enhancement Technologies

(9:40～11:00)

Chairpersons: S. S. Pandey, *Kyushu Institute of Technology, JAPAN*
H. Kajii, *The University of Osaka, JAPAN, JAPAN*

09:40-10:20 SS1_1 The SDV Revolution: A New Strategic Framework for Automotive Cockpits (INVITED)
S. Wu[1,*)]
[1)] Informa TechTarget, Inc., TAIWAN

10:20-11:00 SS1_2 Optical Film Technologies for Automotive Display and HMI (INVITED)
A. Kakizaki[1,*)], J. V. Derlofske[2)], S. Pankrat[2)] and Y. Chang[3)]
[1)]3M Japan Innovation Limited, JAPAN, [2)]3M Company, USA, [3)]3M Taiwan Ltd, TAIWAN

— ***Coffee Break*** —

Special Symposium 2 : AI Based Display Quality Innovation and Novel Transparent Display (11:20～12:40)

Chairpersons: R. Hattori, *Kyushu University, JAPAN*
M. Kimura, *Ryukoku University, JAPAN*

11:20-12:00 SS2_1 AI-Based Technologies for Picture Quality Enhancement (INVITED)
S. Xiao[1,*)] and M. Kudelski[1)]
[1)] TCL Corporation, CHINA

12:00-12:40 SS2_2 Development of a Projection-Type Transparent Display Based on Photoresponsive Liquid Crystals (INVITED)
S. Nabetani[1,*)], Y. Ohta[1)], S. Aso[1)], R. Maehashi[1)], M. Shimada[1)], T. Fukaminato[2)] and S. Kurihara[3)]
[1)] Nissan Motor Co., Ltd, JAPAN, [2)] Kumamoto University, JAPAN, [3)] Chuo University, JAPAN

— ***Lunch*** —

Special Symposium 3 : New LiDAR and Optical Broadband Network for Vehicle

(14:10～15:30)

Chairpersons: H. Tanabe, *Iwate University, JAPAN*
K. Omoto, *Apple Inc., JAPAN*

14:10-14:50 SS3_1 Camera-LiDAR Fusion Sensor: Achieving Parallax-Free, Real-Time RGB-D Data Acquisition (INVITED)
K. Hoshino[1,*)] and H. Okada[1)]
[1)] *Kyocera Corporation, JAPAN*

14:50-15:30 SS3_2 A Highly Reliable, in-Vehicle, Optical Broadband Network for Autonomous Driving, SiPhON (INVITED)
H. Tsuda[1,*)]
[1)] *Keio University, JAPAN*

— ***Coffee Break*** —

Special Symposium 4 : Display Quality Evaluation and Display Innovation

(15:50～17:10)

Chairpersons: M. Kimura, *Ryukoku University, JAPAN*
R. Hattori, *Kyushu University, JAPAN*

15:50-16:30 SS4_1 Uniformity and halo mura evaluation of automotive LCDs, (INVITED)
I. Rotscholl[1,*)] and U. Krüger[1)]
[1)] *TechnoTeam Bildverarbeitung GmbH, GERMANY*

16:30-17:10 SS4_2 Display Innovation in the Driver's Seat (INVITED)
D. S. Hermann[1,*)]
[1)] *Volvo Cars, SWEDEN*

Closing (17:10～17:20)

N. Matsuki, *Kanagawa University, JAPAN*

Banquet (17:30～19:30)

Date: Thursday, July 9

Symposium 2-1 : Advanced PV Technologies for Circular Economy

(9:30～11:00)

Chairpersons: T. Kaneko, *Tokai University, JAPAN*
I. Raifuku, *Aoyama Gakuin University, JAPAN*

09:30-10:00 **S2_1 Recycling of Photovoltaic Modules and Flat Panel Displays by Intensive Light Pulses (INVITED)**
H. S. Gross[1,*)]
[1)] *FLAXTEC GmbH, GERMANY*

10:00-10:30 **S2_2 Glass-to-Glass Recycling Technology for Solar Panel by Using Hot Knife and EVA Scraper (INVITED)**
T. Doi[1,*)]
[1)] *NPC Incorporated, JAPAN*

10:30-11:00 **S2_3 Hydrometallurgical Recycling of Silicon Solar Panels (INVITED)**
E. Effah[1,*)] and M. Tao[1)]
[1)]*Arizona State University, USA*

— ***Coffee Break*** —

Symposium 2-2 : Advanced PV Materials for Next-Generation Solar Cells

(11:15～12:35)

Chairpersons: I. Raifuku*, Aoyama Gakuin University, JAPAN*
T. Kaneko, *Tokai University, JAPAN*

11:15-11:45 **S2_4 Diaminobenzodithiophene-Based Near-Infrared Absorbing Molecules and Their Photovoltaic Functions (INVITED)**
S. Jinnai[1)], M. Uto[2)], H. Fujikawa[2)], S. Higashida[2)] and Y. Ie[1,*)]
[1)]*The University of Osaka, JAPAN,* [2)] *Osaka Metropolitan University College of Technology, JAPAN*

11:45-12:15 **S2_5 Materials-Chemistry Strategies for Tin Halide Perovskite Solar Cells (INVITED)**
T. Nakamura[1,2,*)] and A. Wakamiya[1)]
[1)] *Kyoto University, JAPAN* [2)] *Kyoto University Institute for Advanced Study, JAPAN*

12:15-12:35 **S2_6 Unveiling the Strategy of SDBS-Induced Engineering of Perovskite Solar Cells in Ambient Air**
P. Singh[1,*)], B. Boro[2)] and T. Singh[1)]
[1)]*Indian Institute of Technology Delhi, INDIA,* [2)]*Indian Institute of Technology Kharagpur, INDIA*

— ***Lunch*** —

Symposium 3 : Emerging Frontiers in Advanced Thin-Film Devices

(14:00～15:00)

Chairpersons: S. S. Pandey, *Kyushu Institute of Technology, JAPAN*
H. Naito, *Osaka Metropolitan University, JAPAN*

14:00-14:30 S3_1 Next-Generation Thin-Film Electronics: Emerging Materials, Functional Devices, and Energy-Efficient Technologies (INVITED)
S. K. Sharma[1)]
[1)] Indian Institute of Technology, MandiHong Kong Baptis, INDIA

14:30-15:00 S3_2 Bioinspired Organic Photodetectors for Multispectral Vision (INVITED)
Y. Tang[1)], Z. Wang[1)] and F. Zhu[1,*)]
[1)] Hong Kong Baptist University, CHINA

— ***Coffee Break*** —

Symposium 4: Emerging Technologies for Advanced TFTs and Integrated Systems (15:20～16:50)

Chairpersons: H. Kumomi, *JST, JAPAN*
H. Hayashi, *Huawei Technologies Japan K.K, JAPAN*

15:20-15:50 S4_1 Degrees of Freedom: Multimodal Transistor Architecture Streamlining Display Circuit Design (INVITED)
E. Bestelink[1,*)] and R. A. Sporea[1)]
[1)] University of Surrey, UK

15:50-16:20 S4_2 Atomic-Layer Deposited Oxide TFTs for Next-Gen Display and Memory Application (INVITED)
J. E. Oh[1)], G.-B. Kim[1)], and J. K. Jeong[1,*)]
[1)] Hanyang University, KOREA

16:20-16:50 S4_3 Replacement Type InGaZnO Transistor Technology for Highly Stackable Low-Power 3D DRAM (INVITED)
T. Masuda[1,*)], T. Ochi[1)], T. Sugisaki[1)], T. Akita[1)], F. Kimura[1)], K. Sato[1)], I. Ujiie[1)], S. Mochizuki[1)], M. Iwayama[1)], A. Sakata[1)], S. Miyano[1)], K. Eshiro[1)], T. Ueda[1)], N. Saito[1)], K. Ikeda[1)] and M. Okajima[1)]
[1)] Kioxia Corporation, JAPAN

Poster Session (16:50～18:20)

FPDp

P_1 High-Efficiency Near-Infrared Light-Emitting Electrochemical Cells Based on Copper(I) Complexes
C. -Y. Weng[1)], H. -Y. Wu[1)], Y. -L. Chiu[2)], D. Luo[3)], C. -W. Lu[2)] and H. -C. Su[1,*)]
[1)]National Yang Ming Chiao Tung University, TAIWAN, [2)] Providence University, TAIWAN, [3)] Ming Chi University of Technology, TAIWAN

P_2 Bipolar Diphenylquinoxaline Acceptors for Ultra-Low Voltage and High-Brightness Red Exciplex-Based PhOLEDs
G. -Y. Chen[1)], P. -Y. Lai[1)], K. -Y. Su[2)], Y. -J. Huang[2)], C. -W. Lu[1,*)], and C. -H. Chang[2)]
[1)]Providence University, TAIWAN, [2)]Yuan Ze University, TAIWAN

P_3 Near-Infrared OLEDs Utilizing a CPF:58p-QN Exciplex Co-Host System Doped with a TTM-NPNA Radical Emitter
C. -F. Chiang[1,*)], Y. -C. Kung[1)] and W. -Y. Hung[1)]
[1)] National Taiwan Ocean University, TAIWAN

P_4 Tetrapyridophenazine-Based Acceptor Engineering for High-Performance TADF OLEDs
P. -H. Huang[1,*)], Y. -F. Ye[1)], S. -J. Wang[1)], C. -H. Chang[1)], S. Madagya[2)], H. Janwadkar[2)] and A. Chaskar[2)]
[1)] Yuan Ze University, TAIWAN, [2)]Institute of Chemical Technology, INDIA

P_5 Suppressing Color Shift in Top-Emission Red QLEDs via Weak Microcavity IZO Electrodes
C. -H. Cheng[1,*)], C. -I. Hsieh[1)], and M. Y. Lin[1)],
[1)]National United University, TAIWAN

P_6 Non-Destructive Identification of QLEDs and OLEDs via Machine Learning
C. -H. Cheng[1,*], C. -L. Chen[1], S. -H. Wu[1], C. -I. Hsieh[1], and M. Y. Lin[1]
[1]National United University, TAIWAN

P_7 Effects of Different Display Technologies on the Perception of Vehicle Colors Under Different Lighting Conditions
C. -Y. Wang[1,*] and K. -O. Ha[1]
[1]University of Asia, TAIWAN

TFTp

P_8 Improved Electrical Performance and Bias Stability of IGZO TFTs via H_2O Treatment
Y. -W. Fan[1,*], K. -T. Huang[1], J. -Y. Lin[1], C. -L. Chen[1], C. -Y. Wei[1], Y. -C. Yeh[1], Y. -C. Ou[1], L. -C. Lin[1], Y. -H. Lin[2], G. -L. Luo[3], Y. -C. Wu[1] and F. J. Hou[3]
[1]National Tsing Hua University, TAIWAN, [2] National United University, TAIWAN, [3] National Institutes of Applied Research, TAIWAN

P_9 Changes in Electrical Properties of GTO-TFTs Based on Oxygen Partial Pressure Ratio Before and After Post-Annealing
S. Sano[1,*], H. Kawanishi[1], M. Kimura[1] and T. Matsuda[2]
[1]Ryukoku University, JAPAN, [2] Kindai University, JAPAN

P_10 Impact of Al_2O_3 Passivation on NBS Stability of Bottom-Gate IGZO Thin-Film Transistors on Transparent Substrates
J. Hong[1], Y. S. Park[1], H. Kim[1], D. Kim[1], H. Ryu[1] and H. Cho[1,*]
[1]Sungkyunkwan University, KOREA

P_11 Influence of Oxygen Plasma Treatment on the Electrical Performance and Low-Frequency Noise Behavior of ALD Bottom-Gate In_2O_3 Thin-Film Transistors
C. -L. Chen[1,*], J. -Y. Lin[1], Y. -W. Fan[1], K. -T. Huang[1], C. -Y. Wei[1], Y. -C. Yeh[1], Y. -C. Ou[1], L. -C. Lin[1], Y. -H. Lin[2], G. -L. Luo[3], Y. -C. Wu[1] and F. -J. Hou[3]
[1]National Tsing Hua University, TAIWAN, [2] National United University, TAIWAN, [3] National Institutes of Applied Research, TAIWAN

P_12 Defect Passivation for Enhanced Performance in Atomic Layer Deposition In_2O_3 TFTs Using Oxygen Plasma Treatment
K. -T. Huang[1,*], J. -Y. Lin[1], Y. -W. Fan[1], C. -L. Chen[1], C. -Y. Wei[1], Y. -C. Yeh[1], Y/ -C. Ou[1], L. -C. Lin[1], Y. -H. Lin[2], G. -L. Luo[3], Y. -C. Wu[1] and F. -J. Hou[3]
[1]National Tsing Hua University, TAIWAN, [2] National United University, TAIWAN, [3] National Institutes of Applied Research, TAIWAN

P_13 Ferroelectric Negative Capacitance RF-FinFET using super high-k gate stack with Nearly Ideal Subthreshold Swing for Low Power and High Performance Application
Y. -C. Wu[1,*], C. -W. Wu[1], C. -Y. Wei[1], F. -J. Hou[2], H. -H. Hui[3] and Y. -C. Wu[1]
[1]National Tsing Hua University, TAIWAN, [2] Taiwan Semiconductor Research Institute, TAIWAN, [3]National Taipei University, TAIWAN

P_14 High-Performance and Eco-Friendly SiO_2 Gate Insulators Grown by NO_2-Based Low-Temperature PECVD
J. Nam[1,*], S. Chu[1], H. Park[1], J. Kang[1], S. Choi[1] and J. Yi[1]
[1] Sungkyunkwan University, KOREA

P_15 Investigation of Low-Temperature Oxidation of Ge Substrates Using Sulfuric Acid Additive
H. Harata[1,*], K. Hamano[1], Y. Iwazaki[1] and T. Ueno[1]
[1]Tokyo University of Agriculture and Technology, JAPAN

P_16 Two-Step Deposition and Characterization of Ultrathin GeO_2 on Ge(100) Substrates
H. Inoue[1,*], T. Suzuki[1], Y. Iwasaki[1], T. Ueno[1] and M. Namiki[1]
[1]Tokyo University of Agriculture and Technology, JAPAN

P_17 Improving Hole Accumulation Efficiency in Organic MOS Devices via Interface Engineering and Investigating the Replacement of High-Work-Function Top Electrodes
G. Oriyama[1,*], T. Fujitani[1], Y. Iwazaki[1] and T. Ueno[1]
[1]Tokyo University of Agriculture and Technology, JAPAN

P_18 Low Temperature Oxidation of Si(100)substrate Using Sulfuric Acid
S. Onizuka[1,*], H. Harata[1], Y. Iwazaki[1] and T. Ueno[1]
[1]Tokyo University of Agriculture and Technology, JAPAN

PVp

P_19 Effect of Molecular Structure and Alkyl Chain Length of Self-Assembled Monolayers on Photovoltaic Interfaces
M. Shabpiray[1,2)], A. Umirov[1,2)] and S. K. Lee[1,2,*)]
[1)]Korea Research Institute of Chemical Technology (KRICT), KOREA, [2)] University of Science and Technology (UST), KOREA

P_20 A Cost-Effective Silicon-Photodiode Based Irradiance Sensor with Cosine Error Correction for Solar Photovoltaic Applications
A. Gautam[1,*)], R. N. Tripathi[1)], T. Hanamoto[1)] and S. S. Pandey[1)]
[1)]Kyushu Institute of Technology, JAPAN

P_21 Investigation of Vacuum Process Free and Easy Manual Screen-Printed Organic Electrodes for Organic Solar Cells
Y. Kurokawa[1)], S. Suzuki[1)], C. Takamura[2)], Y. Kobayashi[1)], T. W. Kougami[2)], H. Enozawa[2)] and T. Kato[1)]
[1)]National Institute of Technology (KOSEN), Oyama College, JAPAN, [2)]Muro Corporation Co., Ltd., JAPAN

P_22 Mist CVD Fabrication of Anatase TiO_2-Coated One-Dimensional ZnO Nanorods for Photoelectrode Applications
C. Li[1)], M. Tairai[1)] and T. Guo[1)]
[1)]Kochi University of Technology, JAPAN

P_23 Enhancing Spectral Utilization in Single Junction Perovskite Solar Cells Using Dual Absorber Pseudo Tandem Architecture
A. Sao[1)] and T. Singh[1)]
[1)]Indian Institute of Technology Delhi, INDIA

P_24 Improvement of Damp-Heat Reliability in Heterojunction Solar Cells via Nafion Edge Passivation
H. Jin[1,*)], H. Park[1)], M. N. Aida[1)], S. A. Mohammed[1)] and J. Yi[1)]
[1)]Sungkyunkwan University, KOREA

P_25 Morphology of Copper Iodide Hole Transport Layers Prepared by the Ethanol/iodine Solution Method for Inverted Planar Perovskite Solar Cells
A. Ploypradit[1,*)] and T. Kaneko[1)]
[1)] Tokai University, JAPAN

TFMDp

P_26 Oxygen Flow Dependence of Single-Layer Memristive Nonvolatile Memory
T. Ueo[1,*)], H. Kawanishi[1)], T. Matsuda[2)] and M. Kimura[1)]
[1)]Ryukoku University, JAPAN, [2)]Kindai University, JAPAN

P_27 Stability Enhancement of Ga-Sn-O Thin-Film Memristors Fabricated Using a Mist CVD System with a Mist Mixing Chamber
R. Takahashi[1,*)], S. Sugisaki[1)], T. Matsuda[2)], H. Kawanishi[1)] and M. Kimura[1)]
[1)]Ryukoku University, JAPAN, [2)]Kindai University, JAPAN

P_28 Impact of Gamma-Ray Total Ionizing Dose on DC, RF, and Flicker Noise Characteristics of HZO SOI-FinFETs
C. -W. Wu[1,*)], J. -W. Wu[1)], Y. -C. Wu[1)], P. -J. Lai[1)], F. -J. Hou[3)], H. -H. Hu[2)], and Y. -C. Wu[1)]
[1)]National Tsing Hua University, TAIWAN, [2)]National Taipei University of Technology, TAIWAN, [3)]Taiwan Semiconductor Research Institute, TAIWAN

P_29 Investigation of Reverse Breakdown Characteristics in Organic Schottky Diodes for Stable Voltage Regulation
N. H. Purabiarao[1,*)], A. Tyagi[1)], H. Rai[1)], R. N. Tripathi[1)], and S. S. Pandey[1)]
[1)]Kyushu Institute of Technology, JAPAN

P_30 Demonstration of Resistive Switching Behavior from Potato Starch in Eco-friendly RRAM Devices
N. Mishra[1)], S. Saini[1,*)], S. Bhattacharjee[1)], A. Gupta[1)], and S. P. Tiwari[1)]
[1)]Indian Institute of Technology Jodhpur, INDIA

P_31 High Performance Flexible RRAM Devices with Ti_3C_2 MXene as a Switching Layer
S. Saini[1,*)], N. Mishra[1)], and S. P. Tiwari[1)]
[1)]Indian Institute of Technology Jodhpur, INDIA

LNp

P_L1 Low-Temperature Photoluminescence Study of Defect-Mediated Emission in Green Emissive InP/ZnSe/ZnS Quantum Dots at Liquid Nitrogen

H. Kajii[1,*)], A. Yano[1)], M. Huang[1)], S. Toda[2)] and M. Kondow[1)]

[1)]The University of Osaka, JAPAN, [2)]ULVAC-The University of Osaka Joint Research Laboratory for Future Technology, JAPAN

P_L2 Electro-Optical Properties of Liquid Crystal Cells with Alignment Patterns Formed by Blue Laser Direct Writing

K. Mochizuki[1,*)], T. Takahashi[1)] and Y. Kudoh[1)]

[1)]Kogakuin University, JAPAN

P_L3 Electrowetting-Driven Emulsion Separation for Reflective Displays: Influence of Electrode Line / Space Ratio

A. Toyama[1,*)], T. Takahashi[1)] and Y. Kudoh[1)]

[1)]Kogakuin University, JAPAN

Date: Friday, July 10

Session 1 : Next-Generation Transistor Technologies and Advanced Electronic Devices(9:30～10:35)

Chairpersons: M. Miyakawa, *Japan Broadcasting Coarporation, JAPAN*
N. Saito, *KIOXIA Corporation, JAPAN*

09:30-09:55 **1_1 Low-Temperature Fabrication of Printed OTFT Backplanes for Flexible Electronic Paper Displays (INVITED)**
Y. Takeda[1,*)]
[1)] Yamagata University, JAPAN

09:55-10:15 **1_2 Enhanced Memory Window and Reliability of HfO_2/ZrO_2 Superlattice Fe-GAAFET for BEOL Integration**
C. -E. Wu[1,*)], C. -Y. Wei[1)], Y. -J. Yao[1)], K. -C. Liao[1)], C. -C. Yang[2)], G. -L. Luo[2)], F. -J. Hou[2)] and Y. -C. Wu[1)]
[1)] National Tsing Hua University, TAIWAN, [2)] Taiwan Semiconductor Research Institute, TAIWAN

10:15-10:35 **1_3 Electrostatic Performance Analysis of 7-nm Bulk FinFET with High-k Gate Dielectrics and Scaling Effects**
L. Bharani[1)] and A. S. M. Tripathi[1,*)]
[1)]VIT-AP University, INDIA

— **Coffee *Break*** —

Session 2 : Advancing the Thin Films for Cutting Edge Technologies

(10:55～11:55)

Chairpersons: H. Kajii, *The University of Osaka, JAPAN*
S.S. Pandey, *Kyushu Institute of Technology, JAPAN*

10:55-11:15 **2_1 Green Electrodes: Aqueous Biopolymer and Carbon-Based Conductive Inks for Flexible Electronics**
G. Konwar[1,*)], J. Heldt[1)], A. Potapenja[1)] and C. Glanz[1)]
[1)] Fraunhofer Institute for Manufacturing Engineering and Automation IPA, GERMANY

11:15-11:35 **2_2 Characteristics of DLC-Coated QCM Sensor for Atomic Hydrogen Detection**
A. Heya[1,*)], S. Niihara[1)], I. Tanaka[1)] and K. Sumitomo[1)]
[1)] University of Hyogo, JAPAN

11:35-11:55 **2_3 Engineering Anisotropic Charge Transport and Nonlinear Dynamics in Aligned DPP-TTT Films for Physical Reservoir Computing**
H. Rai[1,*)], K. R. Singh[1)], M. Desu[1)], A. Karacali[1)], M. Xu[1)], Y. Usami[1)], H. Tanaka[1)] and S. S. Pandey[1)]
[1)] Kyushu Institute of Technology, JAPAN

— ***Lunch*** —

Session 3 : Diversified Applications of Display Technologies

(13:25～14:30)

Chairpersons: M. Tamaki, *KYOCERA SOC Corporation, JAPAN*
K. Omoto, *Apple Inc., JAPAN*

13:25-13:50 3_1 Co-Creation Activities in JOINT 2 for Panel-Level 2.xD Interposers and Related Materials Technologies (INVITED)
T. Morijiri[1,*)]
[1)] Resonac Corporation, JAPAN

13:50-14:10 3_2 Physics-Informed Prediction of Red Quantum Dot Scattering Images Through Adaptive Kernel Matrices
C. -I. Hsieh[1,*)], C. -H. Cheng[1)], C. -L. Chen[1)], and M. Y. Lin[1)]
[1)]National United University, TAIWAN

14:10-14:30 3_3 TADF-TADF Sensitization Using Green Emitters for High-Efficiency Near-Infrared OLEDs
N. R. A. Amin[1,*)], S. -J. Wang[1)], Z. -Y. Yuan[1)], C. -H. Chang[1)], C. -H. Chang[1)], D. Tavgeniene[2)], R. Beresneviciute[2)] and S. Grigalevicius[2)]
[1)]Yuan Ze University, TAIWAN, [2)] Kaunas University of Technology, LITHUANIA

— ***Coffee Break*** —

Session 4 : Advanced PWM Driving for Future Displays

(14:50～15:50)

Chairpersons: K. Omoto, *Apple Inc., JAPAN*
M. Tamaki, *KYOCERA SOC Corporation, JAPAN*

14:50-15:10 4_1 Improving Low Gray-Level Expression of PWM Micro-LED Pixel Circuit by Fast Rising Mechanism
Y. -Y. Lai[1)], Y. -J. Chen[1)], M. -Y. Deng[2)] and C. -L. Lin[1)]
[1)] National Cheng Kung University, TAIWAN, [2)] AUO Corporation, TAIWAN

15:10-15:30 4_2 A Flicker-Free Micro-LED Pixel Circuit Using Multi-emission PWM Driving Method
C. -H. Huang[1,*)], C. -S. Chen[1)], Y. -J. Chen[1)], M. -Y. Deng[2)] and C. -L. Lin[1)]
[1)]National Cheng Kung University, TAIWAN, [2)]AUO Corporation, TAIWAN

15:30-15:50 4_3 A-PWM Pixel Circuit of Oxide TFTs for Electrophoretic Displays
C. -J. Chiu[1)], H. Zeng[1)], H. Tang[1)], Q. Lin[2)], C. Liao[2)], and S. Zhang[1,*)]
[1)]Peking University, CHINA, [2)] Shenzhen Technology University, CHINA

LATE NEWS (15:50～16:20)

Chairpersons: H. Kajii, *The University of Osaka, JAPAN*
N. Matsuki, *Kanagawa University, JAPAN*

15:50-16:05 L_1 Suppression of Liquid Metal Pinning and Improvement of Response Characteristics via Surface Treatment in Thin Optical Devices
K. Yoshida[1)], T. Takahashi[1)] and Y. Kudoh[1)]
[1)] Kogakuin University, JAPAN

16:05-16:20 L_2 Sol-Gel Derived Amorphous Gallium Tin Oxide Semiconductor Thin Films for Application in Ultraviolet Solar-Blind Photodetectors
C. -Y. Tsay[1,*)] and Y. -H. Chen[1)]
[1)]Feng Chia University, TAIWAN

Closing Remarks (16:20～16:25)

Y. Uraoka, *Nara Institute of Science and Technology, JAPAN*

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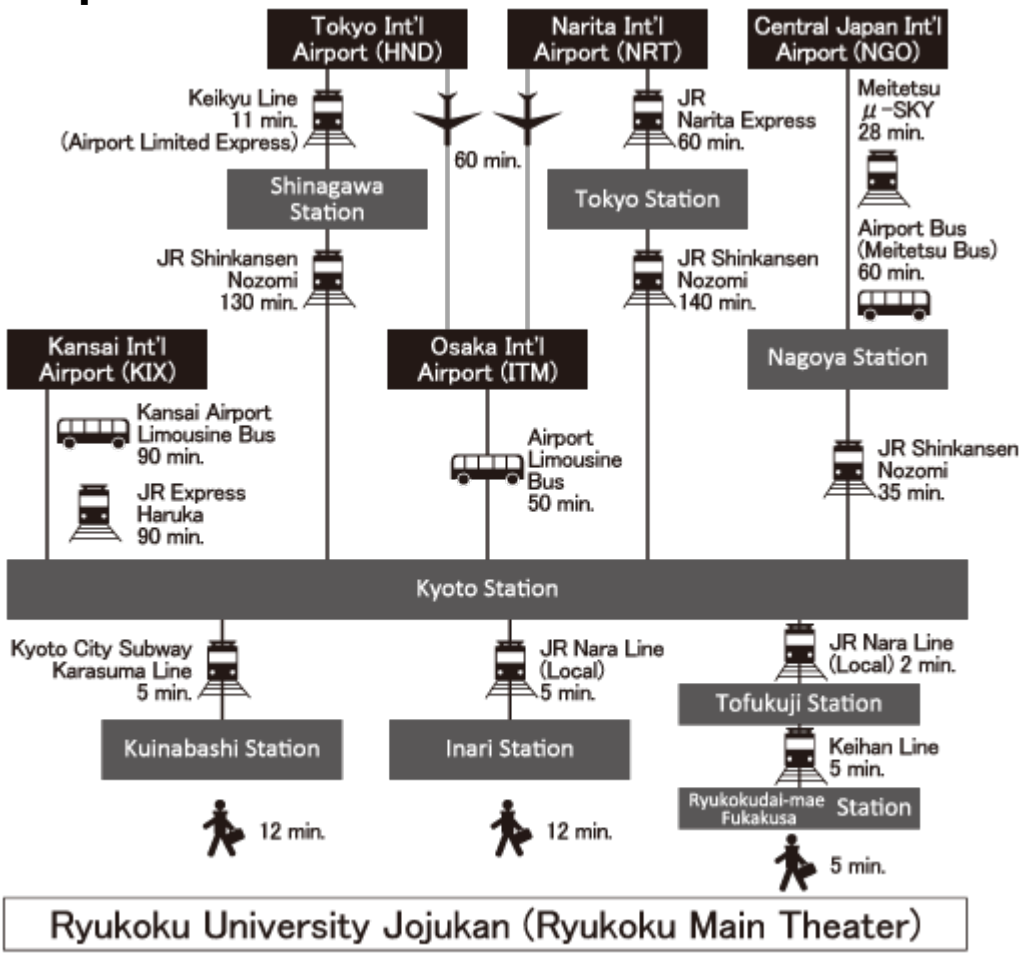
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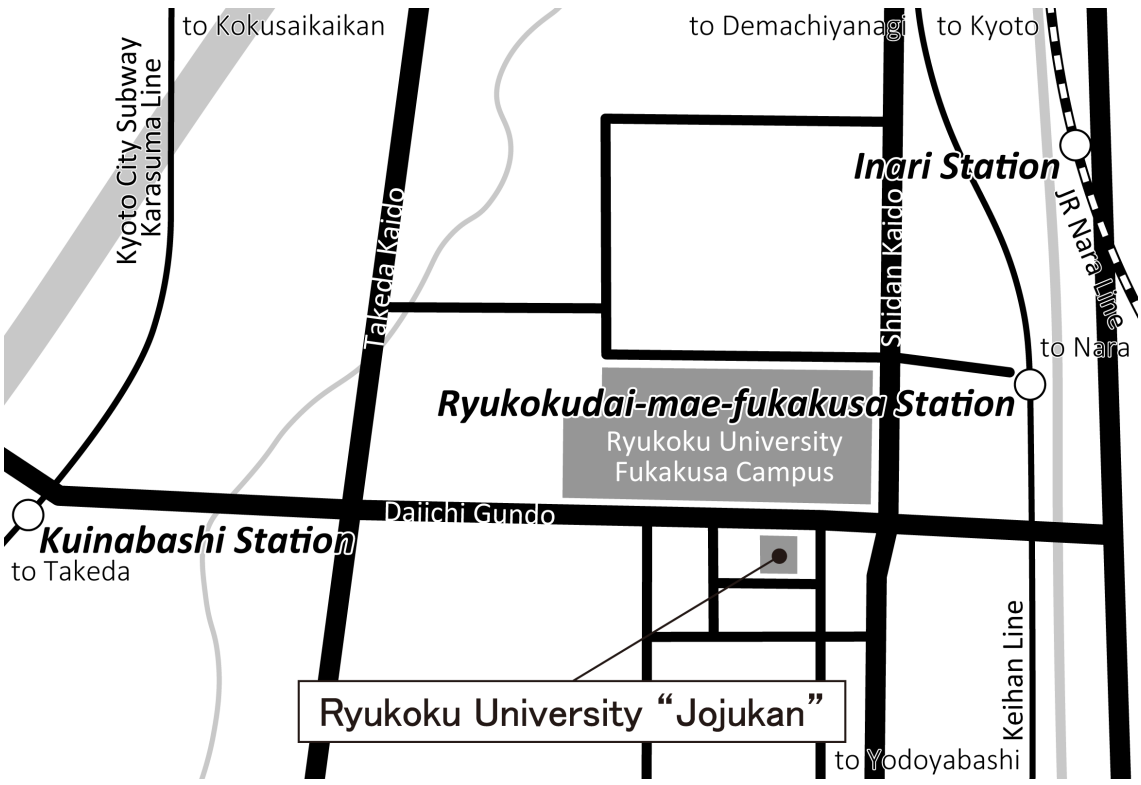
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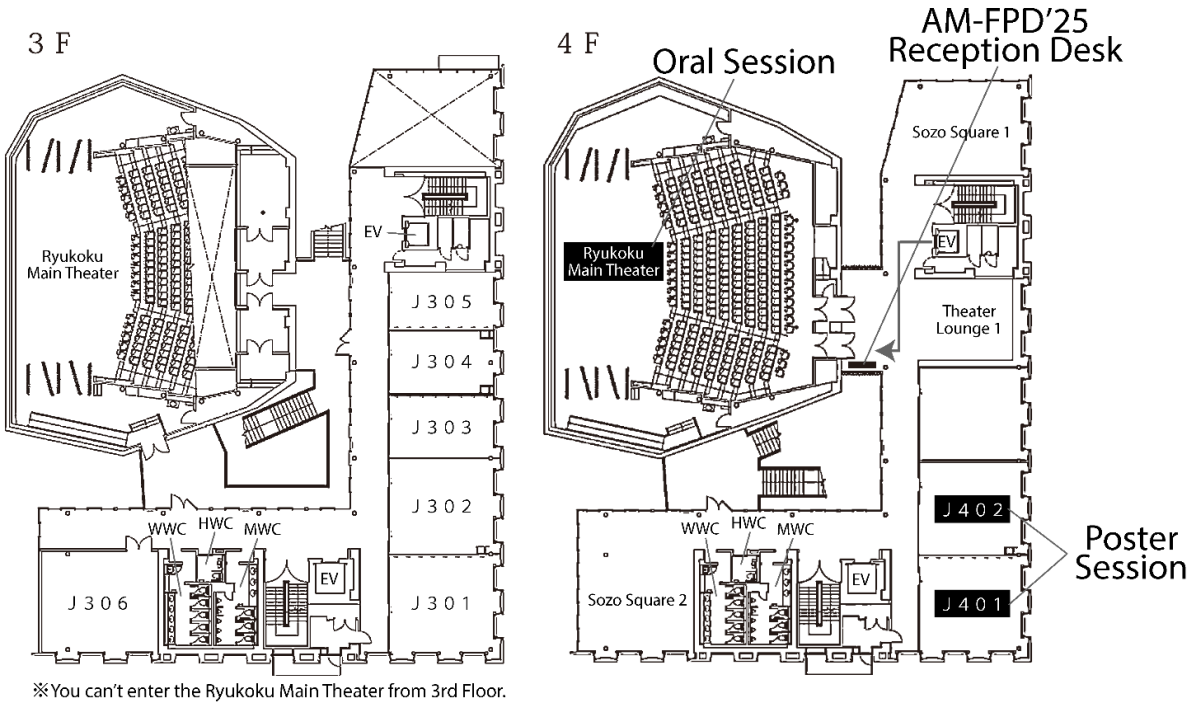
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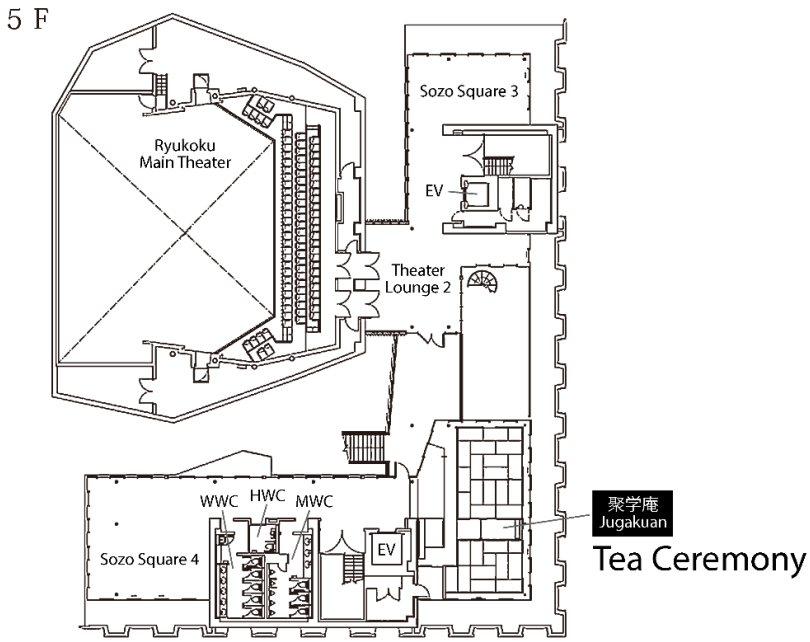




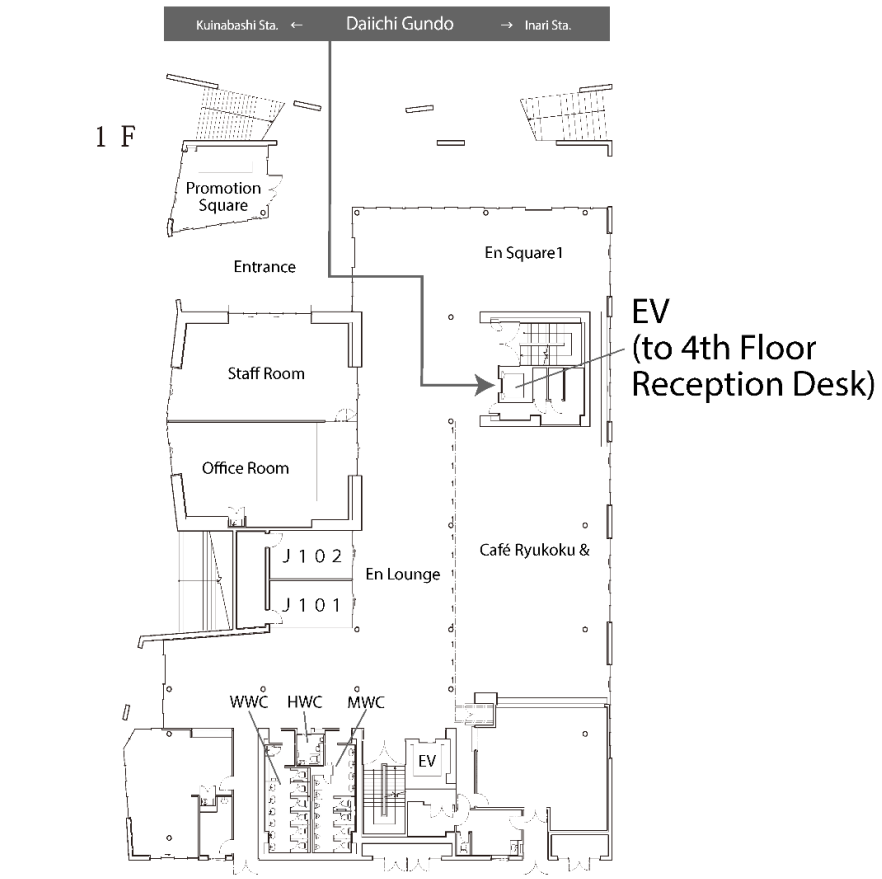
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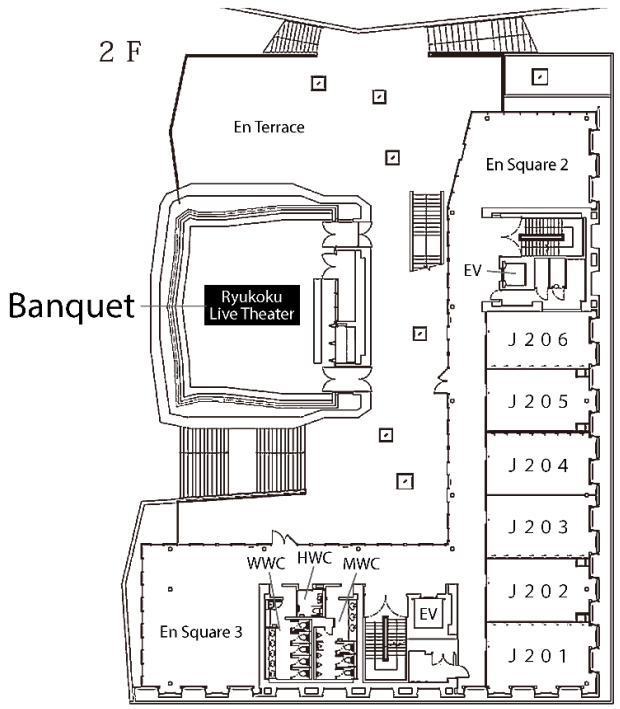
Floor Map





Floor Map


Kuinabashi Sta. ←
Daiichi Gundo
→ Inari Sta.
1 F
Promotion Square
Entrance
En Square1
EV
(to 4th Floor
Reception Desk)
Staff Room
Office Room
J 1 0 2
J 1 0 1
En Lounge
Café Ryukoku &
WWC
HWC
MWC
EV


2 F
En Terrace
En Square 2
Banquet
Ryukoku
Live Theater
EV
J 2 0 6
J 2 0 5
J 2 0 4
J 2 0 3
J 2 0 2
J 2 0 1
WWC
HWC
MWC
EV
En Square 3

THE THIRTY-THIRD INTERNATIONAL WORKSHOP ON ACTIVE-MATRIX FLATPANEL DISPLAYS AND DEVICES －TFT TECHNOLOGIES AND FPD MATERIALS －

(AM-FPD '26)

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