

PROGRAM

AM-FPD 20

THE TWENTY-SEVENTH INTERNATIONAL WORKSHOP ON
**ACTIVE-MATRIX
FLATPANEL DISPLAYS AND DEVICES**
-TFT TECHNOLOGIES AND FPD MATERIALS-

SEPTEMBER 1-4, 2020
Online Virtual Meeting

Sponsorship:

International Society of Functional Thin Film Materials & Devices

Co-Sponsorship:

The Japan Society of Applied Physics

Technical Sponsorship:

The Electrochemical Society - Electronics and Photonics Division -

The Electrochemical Society - Japan Section -

IEEE Electron Devices Society

In cooperation with:

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

Japanese Liquid Crystal Society

Thin Film Materials & Devices Meeting

Society for Information Display - Japan Chapter -

GENERAL INFORMATION

The 27th International Workshop on Active-Matrix Flatpanel Displays and Devices (AM-FPD '20) will be held as an online meeting from September 1 (Tuesday) to 4 (Friday), 2020. This international workshop was established in 1994 to present the latest research and development in Active Matrix Liquid Crystal Display technologies and their applications. In addition to AMLCDs and AMOLEDs, the scope has been widened to novel flat panel displays, materials for displays, flexible technologies, related physical phenomena and novel thin-film devices such as thin-film transistors (TFT), photovoltaics (PV) technologies, and other thin-film materials and devices (TFMD).

We hope that you will attend and enjoy our workshop.

WORKSHOP THEME

AM-FPD '20 will prepare an attractive program focusing on “*Ready, Jump Up to a New Era !*”.

SYMPOSIA

In addition to the regular sessions, we will prepare symposia which numerous speakers discuss for attractive and interesting themes.

Special Symposium on Vehicular Displays will focus on exciting developments paving the future of invehicle 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-vehicular interface, specifically displays.

On September 3, symposia, “*Oxide TFT Technologies for New Applications*”, “*Emerging Technologies for Ubiquitous Electric Power Generation by [PV + X]*” and “*Recent Progress in Thin-Film Device Fabrication*” 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	30 min.	25 min.	5 min.
Special Symposium	30 min.	25 min.	5 min.
Invited	25 min.	20 min.	5 min.
Symposium	30 min.	25 min.	5 min.
Oral	20 min.	15 min.	5 min.
Poster	15:30-17:40, September 3		
Poster display on the web and short presentation will be planned in the poster session.			

THE PROCEEDINGS OF AM-FPD '20

The Proceedings of AM-FPD '20 will be distributed in our workshop special website from September 1.

LANGUAGE

The official language of the workshop is English.

REGISTRATION

For Registration, access our online registration page (<http://www.amfpd.jp>) and enroll your information and complete payment. Registration fee is discounted until August 4 (JST). Registration and other fees should be paid in Japanese yen via bank transfer*1 or credit cards. VISA, Master, DC, AMEX, Diners, Nicos and JCB are acceptable. After your payment has been confirmed, confirmation can be downloaded from our online registration page.

*1 Bank transfer for AM-FPD

A/C No.: 3106887 Mizuho Bank, Ltd. Jugogou Branch

A/C Name: Nippon Travel Agency Co., Ltd.

Registrants living in Japan can make payment via bank transfer or credit cards. Registrants living overseas can make payment by credit cards only.

Category	Advance Registration Fee until August 4, 2020 (JST)	Registration Fee	[One day] Special Symposium Only*3
WORKSHOP*2			
Member*4	¥45,000	¥50,000	¥35,000
Non-Member	¥47,000	¥52,000	
Student	¥15,000	¥17,000	
TUTORIAL			
Regular	Tutorial Only	¥7,000	
	Conference Attendee	¥5,000	
Student		Free	

*2The registration fee of the workshop includes the admission to all sessions and the proceedings. No banquet will be scheduled.

*3One day pass of “Special Symposium Only” is available to attend Special Symposium and panel discussion on Wednesday, September 2. The proceedings of the AMFPD '20 is included in the fee.

*4The member of the societies which sponsor and support AM-FPD '20 (see the front cover).

ON-DEMAND VIEWING

The presentation accepted to deliver by the author will be recorded and available for the participants to watch until September 30, 2020.

CANCELLATION POLICY

In case of cancellation, a written notification should be sent to NTA by e-mail (am_fpd@nta.co.jp) or by FAX (+81-43-225-2241) to avoid any trouble.

Cancel Charge

From August 5 to August 24-----JPY 3,000

After August 25-----100% of the registration fee / NO REFUND

The Proceedings of the AM-FPD '20 (USB memory) will be sent to the attendees who have paid in 100% cancellation charge after the workshop.

Nippon Travel Agency Co., Ltd.(NTA) Chiba Branch

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260-0013, Japan

Fax: +81-43-225-2241 Tel: +81-43-227-2307

E-mail: am_fpd@nta.co.jp

Endorsement Letter

The endorsement letters to IEEE Journal Electron Device Society (J-EDS) or ECS Journal Solid State Science and Technology (JSS) will be issued for excellent papers, which are chosen at our internal rating processes by AMFPD program committees.

Please select which journal you wish getting the 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 '20 workshop is held.
2. After you receive the endorsement letter,
 - Please attach your paper of AM-FPD '20 and the endorsement letter when submitting your manuscript to each journal,
 - You make sure to add in your reference list when you reuse the contents (figures / tables) used in your paper of AM-FPD '20.

Your ID and password are required to be registered before submitting your manuscript to each journal.

IEEE XPLORE DIGITAL LIBRARY

The Proceedings of AM-FPD '20 will be published in the IEEE Xplore digital library in around 2 months after the workshop.

TUTORIAL

These classes are widely aimed at many people from beginners to researchers who hope to review their knowledge. Presentations and documents will be in Japanese. Documents will be distributed to the attendees who have registered in advance. These classes are available for an additional fee (see page 2).

Tuesday, September 1 (10 : 00 ~ 12 : 00)

Chairperson : H. Okada, *Univ. of Toyama, Japan*

- | | |
|-------------|---|
| 10:00 (T-1) | Basic Property and New Technology of Oxide TFT
Yukiharu Uraoka, <i>Nara Inst. of Sci. and Technol., Japan</i> |
| 11:00 (T-2) | Physics of Solar Cells and Technologies for higher photovoltaic conversion efficiency
Noritaka Usami, <i>Nagoya Univ., Japan</i> |

AWARDS

Papers presented at this workshop will be considered for “AM-FPD Paper Awards”, “AMFPD-ECS Japan Section Young Researcher Award”. These winners will be presented at the award ceremony in AM-FPD '21 workshop.

AM-FPD Paper Awards

“Best Paper Award”, “Poster Award” and “Student Paper Award” will be presented. The winners of them are selected by AMFPD '20 award committee chaired by Professor Yukiharu Uraoka (*NAIST*).

AMFPD-ECS Japan Section Young Researcher Award

ECS Japan Section and AM-FPD Organizing Committee have jointly established “AMFPD-ECS Japan Section Young Researcher Award”. This award will be given to the author under the age of 35 that belongs to the university or the research institute in Japan.

AM-FPD '19 PAPER AWARD

Best Paper Award

(SP2-2) Single-Layer Cu Gate Electrode for Large Display Devices
Hoon Kim, Bin Zhu, Rajesh Vaddi, Ming-Huang Huang, Robert Manley, *Corning Res. and Development Corp., USA*

Poster Paper Award

(P-4) Low-Temperature Process Compatibility for the Oxide Thin Film Transistors Using In-Ga-Zn-O Active Channels Prepared by Atomic-Layer Deposition at 150 °C
So-Jung Yoon¹, Seung-Bo Ko¹, Nak-Jin Seong², Kyujeong Choi², Woong-Chul Shin², Sung-Min Yoon¹, ¹*Kyung Hee Univ., Korea*, ²*NCD Co. Ltd., Korea*

Student Paper Award

Sem Visal, Tokai Univ., Japan

(P-14) Efficient Planar Perovskite Solar Cells with Entire Low-Temperature Processes via Brookite TiO₂ Nanoparticle Electron Transport Layer

AMFPD-ECS Japan Section Young Researcher Award

Fahmi Machda, Kyoto Univ., Japan

(3-3) Effects of Sputtering Gas on Crystal Growth Orientations and Durability of Al-Doped ZnO Transparent Electrodes in Harsh Environment

ORGANIZING COMMITTEE

Chair: Hiroki Hamada (*Kinki Univ.*)
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Junya Kiyota (*ULVAC*)
Yue Kuo (*Texas A&M Univ.*)
Takeshi Ishida (*Sharp*)
Atsushi Masuda (*Niigata Univ.*)
Nobuo Sasaki (*Sasaki Consulting*)
Kenji Sera (*Tianma Japan*)
Kozo Ishida (*Mitsubishi Electric*)
Advisor : Makoto Ohkura
Akira Okada

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Jun Koyama (*Semicond. Energy Lab.*)
Shin-Ichiro Kuroki (*Hiroshima Univ.*)
Naoto Matsuo (*Univ. of Hyogo*)
Hiroyuki Okada (*Univ. of Toyama*)

PROGRAM COMMITTEE

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Nobuyoshi Saito (*Kioxia*)
Ruud E. I. Schropp (*Univ. of the Western Cape*)
Isao Suzumura (*Japan Display*)
Kazushige Takechi (*Tianma Japan*)
Taishi Takenobu (*Nagoya Univ.*)
Yung-Hui Yeh (*ITRI*)
Atsushi Wakamiya (*Kyoto Univ.*)

PROGRAM

Tuesday, September 1

Opening Session (13 : 30 ~ 13 : 40)

Chairperson : Y. Uraoka, *NAIST, Japan*

Welcome Address

H. Hamada, *Kinki Univ., Japan*

Award Presentation

Session 1 : Keynote Address (13 : 40 ~ 14 : 45)

Chairpersons : Y. Uraoka, *NAIST, Japan*

H. Okada, *Univ. of Toyama, Japan*

13 : 45 (1-1) Metal Halide Perovskites for Next-Generation LED and Transistor Applications (Invited)
T. Matsushima, C. Adachi, *Kyushu Univ., Japan*

14 : 15 (1-2) Advanced PECVD Processes for SiNW Based Solar Cells and Thin Film Transistors (Invited)
P. Roca i Cabarrocas^{1,2}, Linwei Yu³, ¹*Ecole Polytechnique, France*, ²*IPVF, France*, ³*Nanjing Univ., China*

— Break —

Session 2 : Advances in Solar Photovoltaic Technologies (14 : 55 ~ 16 : 05)

Chairpersons : Y. Ishikawa, *Aoyama Gakuin Univ., Japan*

T. Kaneko, *Tokai Univ., Japan*

15 : 00 (2-1) Vacuum Deposition and Crystal Growth Dynamics of Metal Halide Perovskite (Invited)
T. Miyadera, *Nat'l Inst. of Advanced Industrial Sci. and Technol. (AIST), Japan*

15 : 25 (2-2) Development of Microwave Induced Rapid Heating System Using Wireless Carbon Heating Tubes
T. Miyazaki^{1,2}, R. Seki², T. Uehara², T. Arima², M. Hasumi², G. Kobayashi³, I. Serizawa³, T. Sameshima², ¹*Techno Res., Ltd., Japan*, ²*Tokyo Univ. of Agriculture and Technol., Japan*, ³*ORC MANUFACTURING Co., Ltd., Japan*

15 : 45 (2-3) Inter-Layer Solid-Phase Reaction in Halide Perovskite Fabricated via Alternate Laser Deposition
N. Matsuki, Y. Iida, Y. Abe, T. Shimada, T. Sato, *Kanagawa Univ., Japan*

Wednesday, September 2

Special Symposium : The Future Vehicle Displays (9 : 25 ~)

Special Symposium 1 : OLED Materials with Breakthrough and Novel Systems for Vehicle Applications (9 : 25 ~ 10 : 30)

Chairpersons : H. Tanabe, *Tianma Japan, Japan*
A. Masuda, *Niigata Univ., Japan.*

- 9 : 30 (SS1-1) Phosphorescent OLED Materials with Breakthrough Spectral Line Shape and Operational Stability for Automotive Applications (Invited)
E. A. Margulies, P. -L. T. Boudreault, V. I. Adamovich, B. D. Alleyne, M. S. Weaver, J. J. Brown, *Universal Display Corporation, USA*
- 10 : 00 (SS1-2) E-Tint Systems in Automotive Applications (Invited)
B. Taheri¹, M. Derr², ¹*AlphaMicron Inc., USA*, ²*Akri, LLC, USA*

— Break —

Special Symposium 2 : Forecast of Display Market (10 : 40 ~ 11 : 15)

Chairpersons : H. Okada, *Univ. of Toyama, Japan*
T. Arai, *JOLED, Japan*

- 10 : 45 (SS2-1) Automotive Display Market Outlook- 2020 (Invited)
S. Wu, *Omdia Res., Taiwan*

— Lunch —

Special Symposium 3 : Key Materials and Developments for Vehicle Display Applications (13 : 00 ~ 13 : 35)

Chairpersons : T. Arai, *JOLED, Japan*
H. Okada, *Univ. of Toyama, Japan*

- 13 : 05 (SS3-1) Key Technologies in Solution-Process OLED Materials (Invited)
K. Iida, H. Gorohmaru, K. Nagayama, K. Ishibashi, Y. Shoji, K. Okabe, *Mitsubishi Chemical Corp., Japan*

— Break —

Special Symposium 4 : Newly Design and Approach in Vehicle Display

(14 : 15 ~ 15 : 50)

Chairpersons : M. Kimura, *Ryukoku Univ., Japan*
Y. Uraoka, *NAIST, Japan*

- 14 : 20 (SS4-1) Newly-Designed Pixel Circuit and Reflector Cavity with LTPS TFT for MicroLED Display (Invited)
H. Ito¹, M. Tamaki¹, T. Suzuki¹, K. Aoki¹, R. Yokoyama¹, S. Nakamitsu¹, K. Imaizumi¹, K. Yamanoguchi¹, M. Nishide¹, F. Rahadian¹, S. Matsuda¹, E. Lang², L. Hoeppe², ¹*Kyocera Corp., Japan*, ²*OSRAM Opto Semiconductors GmbH, Germany*
- 14 : 50 (SS4-2) Development of 12.3-inch Highly Transparent Color LCD by Scattering Mode with Direct Edge Light and Field Sequential Driving Method (Invited)
T. Nakamura, Y. Omori, M. Miyao, K. Kitamura, H. Sugiyama, Y. Oue, K. Yamaguchi, T. Maeta, S. Kajikawa, M. Yukawa, T. Imai, S. Ishida, K. Okuyama, *Japan Display Inc., Japan*
- 15 : 20 (SS4-3) 30-inch 4K Rollable AM-OLED Display (Invited)
T. Sonoda¹, S. Murashige¹, K. Tanaka¹, Kenji Takase¹, H. Katoh¹, Y. Kataoka¹, T. Usui², T. Okada², T. Shimizu², ¹*Sharp Corp., Japan*, ²*NHK Sci. & Technol. Res. Labs., Japan*

— Break —

Special Symposium 5 : Concepts and Trends for Future Vehicle Display Applications (16 : 00 ~ 16 : 35)

Chairpersons : H. Okada, *Univ. of Toyama, Japan*
T. Arai, *JOLED, Japan*

- 16 : 05 (SS5-1) User Experience and HMI Technologies for the Future (Invited)
D. S. Hermann, S. Singh, *Volvo Cars., Sweden*

Panel Discussion (16: 45 ~)

Thursday, September 3

**Symposium 1 : Emerging Technologies for Ubiquitous Electric Power
Generation by [PV + X] (9 : 25 ~ 11 : 00)**

Chairpersons : N. Matsuki, *Kanagawa Univ., Japan*
A. Wakamiya, *Kyoto Univ., Japan*

- 9 : 30 (S1-1) Sensitized "Thermal" Cell: A New Heat Conversion System to Electricity
(Invited)
S. Matsushita, *Tokyo Inst. of Technol., Japan*
- 10 : 00 (S1-2) Air-Stable n-Type Organic Semiconductors for Thermoelectric Generators
(Invited)
M. Murata^{1,2}, ¹*Osaka Inst. of Technol., Japan*, ²*JST-PRESTO, Japan*
- 10 : 30 (S1-3) Pb- and Sn- Based Perovskite Solar Cells Based on Highly Purified
Materials (Invited)
A. Wakamiya, *Kyoto Univ., Japan*

— Break —

**Symposium 2 : Oxide TFT Technologies for New Applications
(11 : 10 ~ 12 : 15)**

Chairpersons : M. Kitamura, *Kobe Univ., Japan*
N. Saito, *Kioxia, Japan*

- 11 : 15 (S2-1) IGZO Channel Ferroelectric Memory FET (Invited)
M. Kobayashi, *Univ. of Tokyo, Japan*
- 11 : 45 (S2-2) Low-Temperature-Operated Sensitive NO₂ Gas Sensors Based on P-Type
SnO Thin-Film and Thin-Film Transistors (Invited)
H. -I. Kwon, *Chung-Ang Univ., Korea*

— Lunch —

Symposium 3 : Recent Progress in Thin-Film Device Fabrication

(13 : 45 ~ 15 : 20)

Chairpersons : H. Kajii, *Osaka Univ, Japan*

A. Heya, *Univ. of Hyogo, Japan*

- 13 : 50 (S3-1) Semiconductive Single Molecular Bilayers: a New Platform for High-Performance Organic Transistors (Invited)
S. Arai, *Univ. of Tokyo, Japan*
- 14 : 20 (S3-2) Orientation of Semiconducting Polymers via Swift Printing and Drawing Techniques for High Performance Organic Electronic Devices (Invited)
N. Kumari, S. Sharma, S. Nagamatsu, S. S. Pandey, *Kyushu Inst. of Technol., Japan*
- 14 : 50 (S3-3) Enhanced Eu Luminescence in GaN:Eu, O-Based Light Emitting Diodes via Introduction of Nanostructures and Nanocavities (Invited)
J. Tatebayashi, S. Ichikawa, Y. Fujiwara, *Osaka Univ., Japan*

Poster Session (15 : 40 ~ 17 : 40)

Chairpersons :

TFMDp

- (P-1) Deuteration of Pentacene Using Deuterium Gas and Heated Catalyst
A. Heya¹, R. Yamasaki², K. Sumitomo¹, ¹*Univ. of Hyogo., Japan*, ²*Tocalo Co., Ltd., Japan*
- (P-2) Improved Carrier Mobility of Sn-Doped Ge Thin-Films (≤ 50 nm) by Interface-Modulated Solid-Phase Crystallization Combined with Thinning
M. Chiyozono, X. Gong, T. Sadoh, *Kyushu Univ., Japan*
- (P-3) Ga-Sn-O Thin Film Synapse for Neuromorphic Device
Y. Shibayama¹, Y. Ohnishi¹, D. Yamakawa¹, H. Yamane², Y. Nakashima², M. Kimura^{1,2}, ¹*Ryukoku Univ., Japan*, ²*Nara Inst. of Sci. and Technol. (NAIST), Japan*
- (P-4) Relationship of Phase Shift Mask Design and Size of Three-Dimension Nanostructures
P. Sihapitak¹, Y. Ishikawa^{1,2}, X. Wang¹, M. Uenuma¹, Y. Uraoka¹, ¹*Nara Inst. of Sci. and Technol. (NAIST), Japan*, ²*Aoyama Gakuin Univ., Japan*
- (P-5) Mechanism Study on Deposition of SiO_x Films Produced by Silicone Oil and Ozone Gas
W. Zhou, S. Horita, *Japan Advanced Inst. Sci. and Technol. (JAIST), Japan*
- (P-6) Study on Perovskite Photo-Sensors with Solution-Processed Compact TiO₂ Under Low Temperature Fabrication Process
I. Hirano, R. Takano, C. Zhang, H. Okada, *Univ. of Toyama, Japan*
- (P-7) Withdrawn
- (P-8) Deposition Condition at Low Temperature for Crystallization Enhancement of YSZ Films on Glass Substrates by Reactive Sputtering
J. Patidar, S. Horita, *Japan Advanced Inst. Sci. and Technol. (JAIST), Japan*
- (P-9) Evaluations of Selective Dry Etching of GaAs Core Layer Having Embedded InAs Quantum Dots Using Optical Measurements towards Photonic Crystal Laser Fabrication
T. Okunaga¹, T. Nozue¹, Y. Xiong¹, H. Kajii¹, M. Morifuji¹, J. Tatebayashi¹, Y. Fujiwara¹, T. Nishihashi², M. Kondow¹, ¹*Osaka Univ., Japan*, ²*ULVAC, Inc., Japan*

- (P-10) Mechanochromic Behavior of Side-Chain Spiropyran Polymer Films
S. Hirooka, M. Kondo, K. Yoshiki, N. Kawatsuki, *Univ. of Hyogo, Japan*
- (P-11) SiSn Film on Insulator by Low-Temperature Solid-Phase Crystallization
T. Kosugi, K. Yagi, T. Sadoh, *Kyushu Univ., Japan*
- (P-12) Evaluation of Thermoelectric Properties of Ga-Sn-O Thin Film Formed by Mist CVD Method
T. Aramaki¹, T. Matsuda¹, Y. Ikeguchi², M. Uenuma², M. Kimura¹,
¹*Ryukoku Univ., Japan*, ²*Nara Inst. of Sci. and Technol. (NAIST), Japan*

FPDp

(P-13) Withdrawn

(P-14) Withdrawn

TFTp

(P-15) Withdrawn

Friday, September 4

Session 3 : New Proposals in Drive Circuit for FPD (9 : 25 ~ 10 : 30)

Chairpersons : R. Hattori, *Kyushu Univ., Japan*
T. Mori, *Aichi Inst. of Technol., Japan*

- 9 : 30 (3-1) Withdrawn
- 9 : 50 (3-2) Compensation Pixel Circuit Based on LTPS TFTs to Improve Effect of Leakage Current for AMOLED Displays with Low Frame Rate
P. -T. Lee, Y. -S. Lin, C. -L. Lin, *Nat'l Cheng Kung Univ., Taiwan*
- 10 : 10 (3-3) Simplified Compensation Circuit Using Simultaneous Emission Driving Method for Highresolution AMOLED Displays
C. -L. Tsai, J. -H. Chang, C. -L. Lin, *Nat'l Cheng Kung Univ., Taiwan*

— Break —

Session 4 : Novel Fabrication Processing and Applications (10 : 40 ~ 11 : 50)

Chairpersons : A. Heya, *Univ. of Hyogo, Japan*
H. Kajii, *Osaka Univ., Japan*

- 10 : 45 (4-1) Wearable Sensors Corresponding to Various Applications in Medical/Healthcare Field (Invited)
K. Miyamoto, K. Hashimoto, M. Kasaoka, M. Kakumu, *TDK Corp., Japan*
- 11 : 10 (4-2) Characteristics of Noble-Gas-Ion-Implanted Amorphous-InGaZnO Films on Glass
T. Ui¹, R. Fujimoto¹, T. Sakai², D. Matsuo², Y. Setoguchi², Y. Andoh², J. Tatemichi¹, ¹*KNISSIN ION EQUIPMENT CO., LTD., Japan*, ²*NISSIN ELECTRIC CO., LTD., Japan*
- 11 : 30 (4-3) Fabrication and Characterization of Ba_{1/3}CoO₂ Epitaxial Films Exhibiting Thermoelectric ZT = 0.12 at Room Temperature
Y. Takashima¹, Y. -Q. Zhang¹, J. Wei^{2,3}, B. Feng², Y. Ikuhara^{2,3}, H. J. Cho¹, H. Ohta¹, ¹*Hokkaido Univ., Japan*, ²*The Univ. of Tokyo, Japan*, ³*Kyoto Univ., Japan*

— Lunch —

Session 5 : Advance in Oxide TFTs (13 : 00 ~ 14 : 10)

Chairpersons : S. Horita, *JAIST, Japan*
N. Saito, *Kioxia, Japan*

- 13 : 05 (5-1) Electronic Defects in Amorphous Oxide Semiconductor and Recent Development (Invited)
K. Ide, H. Hosono, T. Kamiya, *Tokyo Inst. of Technol., Japan*
- 13 : 30 (5-2) Photo-Assisted Processing of Amorphous Gallium Oxide (a-GaO_x) Thin Film for Flexible and Transparent Device Application
D. Purnawati, J. P. Bermundo, Y. Ishikawa, Y. Uraoka, *Nara Inst. of Sci. and Technol. (NAIST), Japan*
- 13 : 50 (5-3) Fabrication and Operating Mechanism of Deep-UV Transparent Semiconducting SrSnO₃-Based Thin Film Transistor
L. Gong^{1,2}, M. Wei^{1,2}, D.-D. Liang^{1,2}, H. J. Cho², H. Ohta², ¹*Univ. of, Sci. and Technol. Beijing, China,* ²*Hokkaido Univ., Japan*

— Break —

Session 6 : Characterization and Applications of TFTs (14 : 20 ~ 15 : 30)

Chairpersons : M. Kimura, *Ryukoku Univ., Japan*
M. Kitamura, *Kobe Univ., Japan*

- 14 : 25 (6-1) Device Modeling of Oxide Semiconductor TFTs (Invited)
K. Abe, K. Ota, T. Kuwagaki, *Silvaco Japan Co., Ltd., Japan*
- 14 : 50 (6-2) Comparison of Pixel Circuits in Pig Eyeball Experiment of Artificial Retina Using Thin-Film Devices
K. Toyoda¹, K. Tomioka¹, K. Misawa¹, N. Naitou¹, T. Noda², J. Ohta³, M. Kimura¹, ¹*Ryukoku Univ., Japan,* ²*Toyohashi Univ. of Technol., Japan,* ³*Nara Inst. of Sci. and Technol. (NAIST), Japan*
- 15 : 10 (6-3) Withdrawn

Closing Remarks (15 : 30 ~ 15 : 40)

**THE TWENTY-SEVENTH INTERNATIONAL WORKSHOP ON
ACTIVE-MATRIX FLATPANEL DISPLAYS AND DEVICES
— TFT TECHNOLOGIES AND FPD MATERIALS —
(AM-FPD '20)**

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