

2019 IWDTF
2019 International Workshop on
Dielectric Thin Films for Future Electron Devices
— Science and Technology —

(November 18-20, 2019, Tokyo Institute of Technology, Tokyo, Japan)
<http://www.iwdtf.org/>

Endorsed by The Japan Society of Applied Physics
Cooperated by IEEE EDS Japan Joint Chapter



SCOPE:

The 2019 International Workshop on “Dielectric Thin Films for Future Electron Devices: Science and Technology” (2019 IWDTF) will be held at Tokyo Institute of Technology, Tokyo, Japan, on November 18-20, 2019. Because the series of IWDTF started in 1999, 2019 IWDTF is the 20 years anniversary. In addition to the papers on materials and processes of dielectric thin films for conventional logic devices, the papers for various electron devices including memory, power, analog, sensor, and display devices are welcome. This workshop focuses dielectric films including high-k, ferroelectric, antiferroelectric, tunneling-barrier, variable-resistance films, and so on as well as conventional ultrathin SiO₂ and SiON films. The workshop will consist of invited and contributed talks, and poster presentations. Selected topics of current interests will be reviewed by several invited talks.

Papers are solicited in, but not limited to, the following areas:

- Electron device application of dielectric thin films
- Material design of dielectric thin films
- Growth and related process of dielectric thin films
- Characterization and control of dielectrics, dielectrics surfaces, and dielectrics interfaces
- Electrical characterization of dielectrics, dielectrics surfaces, and dielectrics interfaces
- Surface preparation and cleaning issues for dielectrics
- Dielectric wearout and reliability
- Dielectric reliability related to process integration
- Surface passivation technology
- Theoretical approaches to dielectrics, dielectrics surfaces, and dielectrics interfaces

KEYNOTE SPEAKERS:

Ernest Wu (IBM): "Facts and Myths of Dielectric Breakdown Processes"

Shinichi Takagi (Univ. Tokyo): "Importance of semiconductor MOS interface control on advanced electron devices"

INVITED SPEAKERS:

Takuji Hosoi (Osaka Univ.), Tuo-Hung Hou (National Chiao Tung Univ.), Yoshihiro Irokawa (NIMS), Daigo Kikuta (Toyota Central R&D Labs.), Kohsuke Nagashio (Univ. Tokyo), Tomonori Nishimura (Univ. Tokyo), Takayoshi Shimura (Osaka Univ.), Yuji Takakuwa (Tohoku Univ.), Tadashi Yamaguchi (Renesas Electronics), Hiroshi Yano (Univ. Tsukuba), Yi Zhao (Zhejiang Univ.)

TOPICAL SESSION:

"Achievement in Understanding Oxidation Processes of Si, Ge, SiGe, SiC, GaN, and Others – 20 Years Anniversary –"

VENUE:

Ookayama Campus, Tokyo Institute of Technology
2-12-1, Ookayama, Meguro-ku, Tokyo 152-8550, Japan
(<https://www.titech.ac.jp/english/maps/>)

IMPORTANT DATES:

Abstract deadline: July 26, 2019

Pre-registration deadline: October 11, 2019

Workshop: November 18-20, 2019

SUBMISSION OF PAPERS:

Paper acceptance is based on the submitted abstracts. The work must be **original and unpublished**. The prospective authors are requested to submit abstract(s) (**in PDF file**), two pages in length, including all figures and tables, by **July 26, 2019** to the workshop website at <http://www.iwdtf.org/>. The two-page abstracts must be written in English and typed in an area of 8.5x11 inches or A4 size. The first page must be headed by the title of paper, author(s), affiliation(s), address(es), and e-mail address of the corresponding author. The abstract must clearly and concisely state the specific results of the work and its originality. The detailed information about the format will be provided at the workshop website. Papers to be presented at the workshop will be selected by the program committee on the basis of the content of submitted abstracts. The decision will be notified by e-mail by the beginning of September 2019. All contributors will be requested to give either an oral or poster presentation.

SUBMISSION OF FULL-PAPERS TO THE SPECIAL ISSUE OF JJAP:

Authors of papers accepted in 2019 IWDTF are encouraged to submit the original and significant part of the papers to the Special Issue of the Japanese Journal of Applied Physics (JJAP). The deadline of the paper submission is **Dec. 13, 2019**. Please refer to the 2019 IWDTF website for the detailed information. Those who wish to submit a paper to the special issue should follow the instructions for preparation of manuscript for JJAP. Please note that the manuscript will be published after the regular review process in JJAP.

REGISTRATION FEE:

Registration for the 2019 IWDTF should be made on the workshop website.

Participants	Pre-registration (On or before October 11)	On-site Registration (After October 11)	Banquet*
Regular	¥35,000	¥40,000	¥4,000
JSAP or IEEE member	¥30,000	¥35,000	¥4,000
Student	¥15,000	¥15,000	¥4,000

* The banquet will be held in the evening on November 19, 2019.

No cancellation will be accepted after October 18, 2019.

COMMITTEES:

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FURTHER INFORMATION:

Please visit our workshop website: <http://www.iwdtf.org/>

If you have any questions, please contact the 2019 IWDTF office: iwdtf2019@ssl.ee.tcu.ac.jp.