

Symposium on Frontier Researches of Functional Oxide Devices and Materials

Date March. 16 <Fri.>, 2018 **Venue** Ariston Hotel Kobe

Scope

Metal oxides show various functionalities that could contribute to realize the nonvolatile memory devices with low power consumption, memristor, synaptic transistor and so on. Behind recent advances and emerging trends in the field of multifunctional complex oxides and their utilization in electronic devices, both experimental and theoretical studies at surface/interface are essential.

In the upcoming Symposium on Frontier Researches of Functional Oxide Devices and Materials, the recent advances in the fundamental study and the application of metal oxides will be summarized by internationally recognized experts, who are exploiting functional oxides in their research in order to obtain novel materials with improved properties for electronics, magnetics, and other growing disciplines.

Keynote speakers

Shriram Ramanathan (Purdue Univ.)

Shik Shin (Univ. of Tokyo)

Invited speakers

Ho Nyung Lee (Oak Ridge National Lab.)

Shinji Miwa (Osaka Univ.)

Masahito Mochizuki (Waseda Univ.)

Naoya Shibata (Univ. of Tokyo)

Yusuke Wakabayashi (Osaka Univ.)

Qiangfei Xia (Univ. of Massachusetts)

Michiko Yoshitake (NIMS)

Registration

mail to foe-edtm@sanken.osaka-u.ac.jp
with your Name and Affiliation

Registration Fee

General	¥1,000
Students	Free
EDTM members	Free

Organizers

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Web

http://ewh.ieee.org/conf/edtm/2018/files/JSAP_Functional_Oxide_Electronics.pdf

Program

		Chair	Miho Kitamura (KEK)
10:00~10:05	Hidekazu Tanaka (Osaka Univ.)		Opening remark
	Azusa N. Hattori (Osaka Univ.)		Introductory talk
10:05~10:50	Shik Shin (Univ. of Tokyo)		Keynote
	“Nondestructive operando nano-imaging of the resistivity switching in ReRAM by the development of ultrahigh resolution laser-photoelectron microscopy”		
10:50~11:20	Shinji Miwa (Osaka Univ.)		Invited
	“Electric-field-induced effect in Fe/MgO-based multilayer devices”		
11:20~11:50	Yusuke Wakabayashi (Osaka Univ.)		Invited
	“Surface structure analysis based on X-ray diffraction: solid-solid and solid-liquid interfaces”		
11:50~12:20	Naoya Shibata (Univ. of Tokyo)		Invited
	“Advanced atomic-resolution electron microscopy for real-space electromagnetic field imaging”		
12:20~13:50	Lunch		
		Chair	Azusa N. Hattori (Osaka Univ.)
13:50~14:35	Shriram Ramanathan (Purdue Univ.)		Keynote
	“Organismic Quantum Matter and Learning”		
14:35~15:05	Qiangfei Xia (Univ. of Massachusetts)		Invited
	“Hafnium Oxide and Silicon Oxide based Memristors”		
15:05~15:35	Michiko Yoshitake (NIMS)		Invited
	“Materials Curation TM : Examples for Metal Oxides”		
15:35~15:50	Break (conference photo)		
		Chair	Jobu Matsuno (RIKEN)
15:50~16:20	Masahito Mochizuki (Waseda Univ.)		Invited
	“Dynamical Phenomena and Device Functions of Magnetic Skyrmions”		
16:20~16:50	Ho Nyung Lee (Oak Ridge National Lab.)		Invited
	“Emergent Phenomena in 3d-5d Oxide Quantum Heterostructures”		
16:50~16:55	Hiroshi Kumigashira (KEK)		Closing remark