

# 第14回 関西コロキウム電子デバイスワークショップ

**参加費  
無料**  
(事前登録不要)

**2013年度IEEE主要ジャーナル・国際会議から  
関西発の注目論文を選びすぐり、著者自らに  
解説していただきます**



日時: 2014年11月17日(月) 10:10~17:05  
会場: 大阪工業大学 うめきたナレッジセンター  
グランフロント大阪 ナレッジキャピタルタワー C9階  
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## 講演プログラム 2014年11月17日(月) 10:10-17:05

### I. Power and Compound Semiconductor Devices [10:15 - 11:30]

1. Impact of Epi-Layer Quality on Reliability of GaN/AlGaN/GaN Heterostructure Field-Effect Transistors on Si Substrate [IEEE TED]  
Y. Ando (Renesas Electronics Corp.)

2. 4H-SiC MISFETs With 4H-AlN Gate Insulator Isopolytypically Grown on 4H-SiC (1120) [IEEE EDL]  
M. Horita (Kyoto Univ.)

3. Breakthrough in Trade-off between Threshold Voltage and Specific On-Resistance of SiC-MOSFETs [ISPSD]  
M. Furuhashi (Mitsubishi Electric Corp.)

### II. Sensor, Solar Cell, and Emerging Devices [13:00-14:40]

1. High-efficiency Thin and Compact Concentrator Photovoltaics using Micro-solar Cells with Via-holes Sandwiched between Thin Lens-array and Circuit Board [SSDM]  
A. Itoh (Panasonic Corp.)

2. Fabrication of Aluminum Oxide Thin Films by Solution-Source Non-Vacuum Process of Mist Chemical Vapor Deposition with Ozone Assistance [SSDM]  
T. Uchida (Kyoto Univ.)

3. Fully Printed, Large-scale, High Sensitive Strain Sensor Array for Stress Monitoring of Infrastructures [MEMS]  
K. Takei (Osaka Prefecture Univ.)

4. Artificial Retina using Poly-Si TFTs –Operation Confirmation of Real-Time Detention– [AMFPD]  
M. Kimura (Ryukoku Univ.)

### III. CMOS Process, Device, and Circuit [15:00-16:40]

1. Neural Network based on a Three-Terminal Ferroelectric Memristor [VLSI]  
Y. Nishitani (Panasonic Corp.)

2. A CMOS Image Sensor Having Stacked Photodiodes for Lensless Observation System of Digital Enzyme-linked Immunosorbent Assay (ELISA) [SSDM]  
H. Takehara (NAIST)

3. An Enzymatic Amperometric Glucose Sensor on CMOS Chip using Carbon Ink Electrode and Chromatography Paper [SSDM]  
M. Miki (Ritsumeikan Univ.)

4. Nano-device Simulation from an Atomistic View [IEDM]  
N. Mori (Osaka Univ.)