

Session	Start time	Allotted time(min)	No.	Title	Speaker	Affiliation	Type
Opening	9:00	15					
1. Keynote Elke Meissner Michihiko Suhara	9:15	45	1-1	Technology of AlN-based power transistors	Oliver Hilt	Ferdinand-Braun-Institut gGmbH, Germany	keynote
	10:00	45	1-2	Spintronics Nonvolatile Memory -A metal/insulator heterostructure -	Hideo Ohno	Tohoku Univ., Japan	keynote
Coffee Break	10:45-11:05						
2. GaN/UWBG RF 1 Toshiharu Kubo David Meyer	11:05	25	2-1	Al-rich AlGa _N alloys for RF and power transistors	Andrew Allerman	Sandia National Labs./Ohio State Univ., USA	invited
	11:30	25	2-2	AlScN/GaN HEMTs: Towards Higher Power and Bandwidth at Millimeter-Wave Frequencies	Sebastian Krause	Fraunhofer IAF/Albert-Ludwig Univ. of Freiburg, Germany	invited
	11:55	3	2-3	Temperature Dependent S-Parameter Measurement of GaN-Based IMPATT Diodes	Patrick Fay	Univ. of Notre Dame, USA	sp
	11:58	3	2-4	Influence of surface treatment on short channel effect in GaN HEMTs	Yasuyuki Miyamoto	Tokyo Tech., Japan	sp
	12:01	3	2-5	Low- and High- Field 2DEG Transport Properties in AlGa _N /Ga _N at High Temperatures	Yusuke Wakamoto	Univ. of Tokyo/Sumitomo Electric Industries, Ltd., Japan	sp
Lunch	12:05-13:30						
3. High Frequency Yasuyuki Miyamoto Dae-Hyun Kim	13:30	25	3-1	Cryogenic In _x Ga _{1-x} As/In _{0.52} Al _{0.48} As quantum-well HEMTs for quantum computing	Dae-Hyun Kim	Kyungpook National Univ., South Korea/Texas Tech. Univ., USA /KAIST, South Korea	invited
	13:55	15	3-2	Double δ -doped Al _{0.40} In _{0.60} Sb/Ga _{0.22} In _{0.78} Sb HEMTs with over 450 GHz-f _{max}	Ryuto Machida	NICT/Tokyo Univ. of Sci., Japan	upgrade
	14:10	3	3-3	InP-based Double Heterojunction Bipolar Transistors with InP/InAlAs Composite Collector	Takuya Hoshi	NTT Corporation, Japan	sp
	14:13	3	3-4	Enhanced electron mobility in InSb/Ga _{0.22} In _{0.78} Sb composite channel HEMT structures	Tomoki Jinnai	Tokyo University of Sci./NICT, Japan	sp
4. THz Safumi Suzuki Michael Feiginov	14:20	25	4-1	3D Rectification Effect in Grating-Gate InGaAs-Channel HEMT for THz Detection	Akira Satou	Tohoku Univ., Japan	invited
	14:45	15	4-2	Resonant-Tunneling-Diode Oscillators with Double Slot-Ring Antennas for High-Directive and High-Power Terahertz Radiation	Shoei Endo	Tokyo Tech., Japan	upgrade
	15:00	3	4-3	Experimental evaluation of bias-dependent 230-270 GHz oscillation and gain performance in InGaAs/InAlAs triple-barrier resonant tunneling diodes integrated with bowtie antennas	Masato Hatori	Tokyo Metro. Univ./Tokyo Metro Col. of Ind. Tech./NICT, Japan	sp
	15:03	3	4-4	Exploring limitations of slot-antenna resonant-tunnelling-diode oscillators	Michael Feiginov	TU Wien, Austria/Le Quy Don Tech. Univ., Vietnam	sp
	15:06	3	4-5	Anovel method of time domain analysis combining theoretical model of I-V characteristics and quantum transport model for InGaAs/InAlAs triple barrier resonant tunneling diodes	Naoto Sato	Tokyo Metro Col. of Ind. Tech. /Tokyo Metro. Univ., Japan	sp
	15:09	3	4-6	Measurements and analysis of zero bias detection rectennas for 300 GHz band by using GaAsSb/ InGaAs backward diodes with integrated bow-tie or log-spiral antennas	Hijiri Shimokawatoko	Tokyo Metro. Univ./Tokyo Metro Col. of Ind. Tech., Japan	sp
	15:12	3	4-7	300-GHz-Band Optical-to-Wireless Carrier Frequency Down-Conversion by a UTC-PD-Integrated HEMT	Shota Horiuchi	Tohoku Univ., Japan	sp
	15:15	3	4-8	A frequency delta-sigma modulation (FDSM) based scanning near-field THz microscope employing a resonant tunneling diode (RTD) – Proposal and demonstration in microwave frequency range –	Umer Farooq	Univ. of Toyama/Hokuriku Polytechnic Col, Japan	sp
Coffee Break	15:20-15:40						
5. Power 1 Koh Matsumoto Samuel Graham	15:40	25	5-1	Vertical Ga ₂ O ₃ (010) FinFETs with (100) Sidewalls Treated by Nitrogen Radical Irradiation	Masataka Higashiwaki	Osaka Metro. Univ./ NICT/Tokyo Univ. of Agric. and Tech., Japan	invited
	16:05	25	5-2	Multidimensional Power Devices in GaN and Ga ₂ O ₃	Yuhao Zhang (Pre-Recorded Video)	Virginia Tech, USA	invited
	16:30	15	5-3	Gallium Oxide Electronics – Advanced Device Designs	Martin Kuball	Univ. of Bristol, UK	upgrade
	16:45	3	5-4	Switching losses and their mitigation in lateral Ga ₂ O ₃ power MOSFETs with high-permittivity dielectric passivation	Wenpeng Zhou	HKUST, Hong Kong	sp
	16:48	3	5-5	Fast (4.38 ns) dynamic switching operation of NO ₂ -doped p-channel diamond MOSFETs	Tomoki Shiratsuchi	Saga Univ./National Inst. of Tech., Kure Col., Japan	sp
	(withdraw)		5-6	Growth and device fabrication of p-channel Al _{0.6} Ga _{0.4} N/AlN HFETs on single-crystal AlN substrate	Hitoshi Susuki	Nagoya Inst. of Tech., Japan	sp
	16:51	3	5-7	Wider Gate Voltage Range of p-GaN/AlGa _N /Ga _N HFET Employing Dual Dielectric Films for Gate Formation	Min-Gi Jeong	Hongik Univ./ChipsK Corp., South Korea	sp
	16:54	3	5-8	Effect of Negative Gate Bias on the Off-State Blocking Characteristics of p-GaN Gate HEMT	Jiaojiao Song	Peking Univ. China	sp
	16:57	3	5-9	Tri-gate Normally-Off Power MIS-HEMT with different Fin Configuration and Ferroelectric Charge Storage Gate Stack	Rahul Rai	NYCU, Taiwan/IITKanpur, India	sp
	17:00	3	5-10	AlGa _N /Ga _N CAVETs on Si substrates with strained layer superlattice as current blocking layer and δ -doped conductive buffer layer	Toshiharu Kubo	Nagoya Inst. of Tech., Japan	sp
	17:03	3	5-11	Heavy Ion Induced SEB Robustness of Wide-bandgap Semiconductor Vertical Schottky Barrier Diodes	Zhaowen He	Rensselaer Polytechnic Inst., USA	sp
6. Poster Viewing 1	17:10-18:30		No. 2-3, 2-4, 2-5, 3-3, 3-4, 4-3, 4-4, 4-5, 4-6, 4-7, 4-8, 5-4, 5-5, 5-7, 5-8, 5-9, 5-10, 5-11				