EM-NANO 2025 Timetable

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Time 0	June 11. Wednesday	June 12, Thursday			June 13, Friday				June 14, Saturday			Time 0	
5 10 15 20 9 25 30 35 40 45		Opening Remarks			9:00-9:30 (30 mins) on Nitride and Oxide based Wide bandgap Semiconductor Devices Chair: Joel T. Asubar Invited Lecture 1, To be announced 9:30-10:00 (30 mins) Nitride and Oxide based Wide bandgap Semiconductor Devices, Invited Lecture 2 "High-Frequency Performance of AlGaN/GaN HEMTs with High Al Content: A Theoretical Study"				Plenary Lecture 3 "Novel approaches for responsible electronics" Prof. Karl Leo Technische Universität Dresden (Chair: Prof. Shigeki Naka)			5 5 1(15 2(9 25 9 25 3(35 3(35 4(45 4)	
50 55		Plenary Lecture 1			Prof. Masaaki Kuzuhara, Kwansei Gakuin University							50 55	
0 5 10		Pienary Lecture 1 "A New Era of SiC Power Devices and their Impacts on Carbon Neutrality" Prof. Tsunenobu Kimoto JSAP President, Kyoto University (Chair: Prof. Yoshio Hashimoto)			10:00-10:30 (30 mins) Nitride and Oxide based Wide bandgap Semiconductor Devices, Invited Lecture 3 "Heteroepitaxy of Ga ₂ O ₃ films using liquid-injection MOCVD: Impact of Hydrogen annealing on transport properties of MOSFETs" Prof. Milan Tapajna, Slovak Academy of Science				10:00-10:15 (15 mins) Break			0 5 10	
15 20 10 25 30									[Invited, 11-01] "Recent progress of opto-spintronics based on "Recent progress of opto-spintronics based on "Other the progress of opto-spintronics based on (105 mins) "Other the progress of opto-spintronics based on "Other the progress" opto-spin			15 20 10 25	
30 35 40						10:30-10:45 (15 mins) Break				semiconductor nanomaterials" Prof. Satoshi Hiura	Session 12 (D4. Prof. Kenji Nomura	30 35 40	
45 50 55 0		10:45-11:00 (15 mins) Break				engineering" (1		[Invited, 6-01] "Spin states of organic and inorganic electronic materials and devices by operando microscopic investigation"	(D7. Josephson junctions"		Advanced oxide [Invited, 12-02] materials and "New progress in thermolelectrochromism: their materials and devices" pantications) Prof. Yanteng Gao	45 50 55 0 5	
10 15 20			/ Lecture 2		10:45-12:30 (105 mins)	[Invited, 5-02]	Session 6 (D2 Energy	[6-02] "Potential-induced degradation of crystalline	Chairs: Prot Masashi	[11-03] "Electrical ON-OFF switching of spin-orbit torous is ionic gated BI/Co/Pt trilaus". Sophoon Loo	applications) Prof. Yanneng Gao Chairs: Prof. Keisuke vacancy engineering for self-aligned solution-processed	10 15	
11 25 30 35		Chairman Tetsuro Higashi Chairman of the Board of Directors at Rapidus Corporation			Session 5 (D8. Silicon LSI Emerging Tech) Chair:	technology of Gate-All-Around Nanosheet/CFET devices"	ttery-related Technology and Materials) Chairs: Prof. Myo Than	Nguyen Tran Trung Ducet al. [6-03] "Performance of encapsulant-less vertical	psulant-less vertical an Augusto Mendoza ospun separators for and safety in lithium	et al.	Ohdaira, Prof. oxide TFTs", Krittin Auewattanapun et al. Juan Paolo [12-04] "Optical anisotropy of β-Ga203: first-principles study on refractive index", Masato	20 11 25 30 35	
40 45 50		(Chair: Prof.	(Chair: Prof. Atsushi Masuda)			[Invited, 5-03]		[6-04] "AIN-embedded electrospun separators for efficient thermal dispersion and safety in lithium		[11-05] "First-principles study of spin-splitting and dynamical effective charges in Janus WSSe",	Ishikawa et al. 11:45-12:00 (15 mins) Break	40 45 50	
55 0 5		Lunch			Shinbun Tsuda	"Cryogenic CMOS device technology for scalable guantum computers"	Htay	on the voltage profile of LiNi0.5Mn1.5O4 Cathodes for	alag	Salsabila Amanda Putri et al.		55 0 5 10	
10 15 20						[5-04] "Reduction of back bias effect in cryogenic SOI-MOSFET", Ryosuke Kobayashi et al.	Okamoto	Ithium-ion batteries", Tien Quang Nguyen et al. [6-06] "Triboelectric nanogenerator (TENGs) energy harvester using polypropylene-based recycled food packaging materials"Jose Manuel Esmeria Jr et al.	-	Lui		10 15 20	
12 25 30 35 40					Lunch						15 20 12 25 30 35		
40 45 50												40 45 50 55	
0 5 10		12:00-14:00 (2 hrs	12:00-14:00 (2 hrs) Poster Session 1						12:00-14:00 (2 hrs) Poster Session 3		Poster Session 3	0 5 10	
15 20												15	
13 25 30 35 40					12:30-14:30 (2 hrs) Poster Session 2						13 13 30 35 40 45 50		
45 50 55													
0 5 10		[Invited, 1-01] "Mesoporous MOFs for Biosensing"		[2-01] "Pattern recognition enhancement of HIZrO2 ferroelectric tunnel junctions with NH3-Plasma-treated ALD TIN bottom electrode", Kuan-Lin Chen et al.					14:00-14:30 (30 mins) Session 13 (C. Nanotechnologies 1	[13-01] "Preparation of Mg and Ni nanoparticles by pulsed wire discharge", Ziyan Chen et al.		0 5 10	
15 20 14 25		14:00-15:45 Prof. Jinlou Gu (105 mins)	14:00-15:45 (105 mins)	[2-02] "Piezoelectric properties of polymorphic phase region in (Ba,Ca)(Ti,Sn)O3 ceramics", Hideki Hashimoto et al.				-	Electronics) Chair Prof. Mitsutaka Kumakura	 [13-02] "Synthesis of intermetallic Mg-Ni compound nanoparticles by pulsed wire discharge of twisted Mg and Ni wires", Yiyue Mou et al. 	-	15 20 14 25 30 35	
14 30 35 40 45		Session 1 (A. Organic Materials and Materials and Statement of the state dynamics of Statement of the statement of the stat		[2-03] "EELS study on the relationship between oxygen deficiency sites and transition temperature of YBCO", Xiaopeng Liu et al. [2-04] "Dynamically varying resistances of silicon	-	[Invited, 7-01] "Design of photoactive materials for intrinsically-stretchable polymer solar cells"		[Invited, 8-01] "Optical manipulation of nuclear spin polarization: Single-to-Double hysteresis	(00)			30 35 40 45	
45 50 55 0	Opening Remarks	Materials and Devices for Electronic Chairs: Prof. [1-04] "Device characteristics of various	Devices for Electronics)	[2-04] Dynamically varying resistances of suitcon dioxide nanofilms and their potential for chaos- based secure communication", Selichi Sato et al. [2-05] "Bias voltage dependence of the	- 14:30-16:15	Prof. Bumjoon J Kim	14:30-16:30	transition in semiconductor nanostructures" Prof. Reina Kaji	Inorganic Materials an	[14-02] "Densification of polysilazane under 172 nm VUV light at varying light intensity and their application to high- performance moisture barriers", Luyang Song et al. [14-01] "Sensitivity anhancement of surface plasmon		43 50 55 0	
5 10 15	Remarks from the JSAP President Prof. Tsunenobu Kimoto Introduction of Guests of Honor	Kazunari Internolocular distance in the upconversion Shinbo, Prof. donor layer", Yuu Maekawa et al. Takaaki [1-05] "Highly transparent and flexible thin-film	Yong Yang, Prof. Mary	performance of polarization-sensitive photodiode using dilute nitride GaNAs", Daiki Mineyama et al. [2-06] "Photoluminescence dynamics in a GaAs	Session 7 (D1.	factor of ternary blend organic solar cells based	(120 mins) Session 8 (C.	[Invited, 8-02] "Unconventional epitaxy for high-density	Devices for Electronics	resonance sensor employing 2D black phosphorus: an analytical insight", Arnab Saha et al.		5 10 15	
20 15 25 30		Manaka hater using conductive N-type polymer via electrostatic spraying method", Hojae Kim et al. [1-06] "Investigation of orientation distribution in	Clare Escano	III voi principalitation and a second	Hiroaki	[7-03] improvement or non-numerine organic solar cens by using the localized surface plasmon resonance effect of metal nanoparticles", Yuting Miao et al. [7-04] "Development of organic thin film	gies for Electronics)	Prof. foung Joon Hong	Akira Baba	[14-04] "Comparison between Cu2ZnSnS4 crystals with different Zn ratios", Koichiro Oishi et al.		20	
35 40 45	Remarks from our honored guests, Profs. Futao Kaneko and Kiyoshi Yatsui	nematic liquid crystal on linear tilt-patterned surface", Yuji Tsukamoto et al.		spherulite-like GeS thin films", Qinqiang Zhang et al.	Hiroyuki Kanda	electrodes for high-performance all-organic solar cells", Akihiro Konishi et al. [7-05] "Role of HOMO energy level alignment in charge	Chairs: Prof. Atsushi Yamaguchi,	nitride semiconductors with pit structures by wavelength angle-resolved cathodoluminescence method", Shota Usami et al. [8-04] "Deep learning-based automated SEM image	e		ing Remarks	15 29 30 39 40 41 50	
50 55 0		15:45-16:00 (15 mins) Break			7	transport and fill factor in ternary blend all-polymer solar cells", Zhiyuan Liang et al. [7-06] "Enhancing dye-sensitized solar cell performance by	Prof. Toru Matsuura	analysis pipeline for GaN trench structures", Selyo Nojima et al. [8-05] "Deciphering a graphene/2D TIS2-based electrochemical				43 50 55 0	
5 10 15	Memorial Lecture for Prof. Keizo Kato by Prof. Akira Baba	[Invited, 3-01] "The trivalent metal (Bi, Sb, In) approach fo Pb and Pb-free perovskites based on optoelectronic study"	or	[Invited, 4-01] "Nanocarbon innovation for a carbon circular economy"		photoanode with carbon and ittarium dioxide nanostructures from Sri Lankan limenite", A.C.W.W.M. Nilakshi Peshala Koswatta et al.		immunosensor:a novel label-free platform for prostate-specific antigen detection using ferrocene carboxylic acid signal amplification? Patrawadee Yaiwong et al.				5 10 15	
20 16 25 30	16:20-16:30 (10 mins) Break	Prof. Ryosuke Nishikubo	16:00-18:00	Prof. Morinobu Endo [Invited, 4-02]	16:1	5-16:40 (25 mins) Break	46	[8-06] "ZnS/ZIF8 inorganic/organic nanowire hybrids for humidity-resistant H2S gas sensing", Wenjea Tseng et al. 5:30-16:40 (10 mins) Break				20 16 25 30 35	
35 40 45	Special Lecture 1 by Prof. Akio Yamamoto, "MOVPE growth and applications of InN,In-rich InGaN and In-rich InAIN"	16:00-18:00 [Invited, 3-02] (120 mins) "The development of halide double Session 3 (D1. perovskites"	(120 mins) Session 4 (D6. Carbon &	"Enhanced channel mobility of hydrogen- terminated diamond field-effect transistors utilizing a hexagonal boron nitride gate	L	[Invited, 9-01]		[Invited, 10-01]				40 45	
50 55 0		Photovoltaics) Chairs: Prof. Atsushi Atsushi	Related Materials) Chairs: Prof.	insulator" Prof. Yosuke Sasama [4-03] "Unconventional thermal conductivity of	-	"AIN for ultra wide bandgap based power electronics" Prof. Ramon Collazo	16:40-18:10 (90 mins) Session 10 (A	or paper" Prof. Thomas Fuhrmann-Lieker				50 55 0	
5 10 15	Special Lecture 2 by Prof. Masahiro Horibe, "Formation of a Quantum Global Business Ecosystem"	Yukiko [3-04] "Effect of mixed 2D-cation passivation towards improve therebility of exemutivity exemutivity of 2D	Keiji Komatsu,	zigzag graphene nano-meshs", Takamoto Yokosawa et al. [4-04] "Room temperature fabrication of multi-	16:40-18:40 (120 mins)	[Invited, 9-02]	Organic Materials and	[10-02] "Study on carrier behavior in OLED with rubrene/acceptor by displacement current				5 10 15	
20 17 25 30	Closing Remarks	KdITIIKdWd perovskikes under light irradiation and at high temperature", <u>Hiroyuki Kanda et al.</u> [3-05] "Efficient and stable perovskike solar cells and self	Prof. Tsubasa Matsumoto	dimensional carbon-metal nanocomposites for energy applications", Masaki Tanemura et al. [4-05] "Tailoring percolative conduction network within PTE-CNT composite to control contact	Session 9 (D3. Wide bandgap materials and	HEM Is technology" Prof. Giuseppe Greco	Chairs: Prof.	[10-03] "Development of red circularly polarized luminescence via chiral induction and dye				20 17 25 30 35 40	
35 40 45 50		powered photodetectors enabled by molecular and interface engineering", ChihYu Chang Chang [3-06] "Fabrication of high-efficiency perovskite/sillcon tandem photovoitaic modules using allicone encapsulant	-	within PTFE-CNT composite to control contact electrification behaviors", Chan Song Moon et al. [4-06] "Recovery of spin properties in focused ion beam- fabricated introgenursary scanning norbes using	devices)	[9-03] "Wavelength dependence of photoluminescence lifetime in InGaN quantum wells with different alloy composition", Ririka Yamagata et al.	Shigeki Naka Prof. Masahiro	doping", Haoran Sun et al. ¹ [10-04] "Surface plasmon resonance-enhanced photoelectrochemical flexible sensor using PEDOT:PSS thin film with nanostructured gold", Charin Seesomdee et				35 40 45 50	
50 55 0		tandem photovoltaic modules using silicone encapsulant: Hanae Yamazaki et al.	,	fabricated nitrogen-vacancy scanning probes using ultraviolet/ozone*, Dwi Prananto et al.		[9-04] "Importance of Mg diffusion process in realizing p- channel GaN FinFETs on Iow-doped p-GaN films", Simranjit Singh et al.	Nakano	al. [10-05] "p+-i-p+ type thin-film transistors based on poly(3- hexylthiophene) fabricated by polymer stamping", Kazuki Takayama et al.				55 0	
5 10 15 20						[9-05] "Enhancing beta-Ga2O3-diamond integration for high-power electronics: thermal and mechanical performance of SiC and SiO2 interlayers", Javad Keshtkar	on for					5 10 15 20	
20 18 25 30 35	18:00 ~ Welcome Reception					et al. [9-06] "Understanding the reduced current collapse in Schottky-gate AIGaN/GaN HEMTs with Vanadium-based metal stack ohmic contact", Naeemul Islam et al.		18:10-19:00 (50 mins) Break				20 18 25 30 35	
35 40 45 50					18:40-19:00 (20 mins) Break							35 40 45 50	
55		1										55	
		19:00 ~ Banquet											
			Banquet										