

EM-NANO 2025 Timetable

Time		June 11. Wednesday	June 12, Thursday	June 13, Friday	June 14, Saturday	Time		
9	0			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	Plenary Lecture 3 "Novel approaches for responsible electronics" Prof. Karl Leo Technische Universität Dresden (Chair: Prof. Shigeki Naka)	0		
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10	35		Opening Remarks	9:30-10:00 (30 mins) Nitride and Oxide based Wide bandgap Semiconductor Devices, Invited Lecture 2 "High-Frequency Performance of AlGaIn/GaN HEMTs with High Al Content: A Theoretical Study" Prof. Masaaki Kuzuhara, Kwansei Gakuin University		35		
	40		Plenary 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		40		
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	50			10:30-10:45 (15 mins) Break		50		
	55		10:45-11:00 (15 mins) Break			55		
				10:45-12:30 (105 mins) Session 5 (D8. Silicon LSI Emerging Tech) Chair: Prof. Takayuki Mori, Prof. Shinbun Tsuda	10:15-12:00 (105 mins) Session 11 (D7. Spintronics) Chairs: Prof. Masashi Akabori, Prof. Minoru Goto			
				[Invited, 5-01] "Development of ferroelectric field effect transistor designed by nanomaterial engineering" Prof. Tadashi Yamaguchi	[Invited, 6-01] "Spin states of organic and inorganic electronic materials and devices by operando microscopic investigation" Prof. Kazuhiro Marumoto			
11	0		Plenary Lecture 2 "A Renewed Challenge at Leading-Edge Semiconductors" Chairman Tetsuro Higashi Chairman of the Board of Directors at Rapidus Corporation (Chair: Prof. Atsushi Masuda)	[Invited, 5-02] "Interface dipole engineering for multi-Vt technology of Gate-All-Around Nanosheet/CFET devices" Prof. Hiroaki Arimura	[Invited, 11-02] "Superconductive coupling and diode effect in topological insulator-based multi-terminal Josephson junctions" Prof. Thomas Schaebers	10:15-11:45 (105 mins) Session 12 (D4. Advanced oxide materials and their applications) Chairs: Prof. Keisuke Ohdaira, Prof. Juan Paolo Bermundo	0	
	5			[Invited, 5-03] "Cryogenic CMOS device technology for scalable quantum computers" Prof. Hiroshi Oka	[Invited, 11-03] "Electrical ON-OFF switching of spin-orbit torque in ionic-gated Pt/Co/Pt trilayer", Soobom Lee et al.	[Invited, 12-02] "New progress in thermo/electrochromism: materials and devices" Prof. Yanfeng Gao	5	
	10				[11-03] "Electrical ON-OFF switching of spin-orbit torque in ionic-gated Pt/Co/Pt trilayer", Soobom Lee et al.	[12-03] "Synchrotron spectroscopic insights into oxygen vacancy engineering for self-aligned solution-processed oxide TFTs", Kritin Anuwattananun et al.	10	
	15				[11-04] "Epitaxial growth and characterization of MnSb/InSb hybrid structures on GaAs(111)B using MBE for Spin-FET applications", Kabir Md Faysal et al.	[12-04] "Optical anisotropy of β-Ga ₂ O ₃ : first-principles study on refractive index", Masato Ishikawa et al.	15	
	20				[11-05] "First-principles study of spin-splitting and dynamical effective charges in Janus WS ₂ ", Salsabila Amanda Putri et al.	11:45-12:00 (15 mins) Break	20	
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12	35		Lunch	Lunch			35	
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13	0		12:00-14:00 (2 hrs) Poster Session 1	12:30-14:30 (2 hrs) Poster Session 2		12:00-14:00 (2 hrs) Poster Session 3	0	
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15	0	Opening Remarks Remarks from the JSAP President Prof. Tsunenobu Kimoto Introduction of Guests of Honor	14:00-15:45 (105 mins) Session 1 (A. Organic Materials and Devices for Electronic) Chairs: Prof. Kazunari Shinbo, Prof. Takaaki Manaka	14:00-15:45 (105 mins) Session 2 (B. Inorganic Materials and Devices for Electronics) Chairs: Prof. Yong Yang, Prof. Mary Clare Escano	14:30-15:30 (60 mins) Session 14 (B. Inorganic Materials and Devices for Electronics) Chair: Prof. Akira Baba		0	
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16	35	Remarks from our honored guests, Profs. Futao Kaneko and Kiyoshi Yatsui					35	
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17	0	Memorial Lecture for Prof. Keizo Kato by Prof. Akira Baba	[Invited, 3-01] "The trivalent metal (Bi, Sb, In) approach for Pb and Pb-free perovskites based on optoelectronic study" Prof. Ryosuke Nishikubo	16:00-18:00 (120 mins) Session 4 (D6. Carbon & Related Materials) Chairs: Prof. Keiji Komatsu, Prof. Tsubasa Matsumoto	16:15-16:40 (25 mins) Break		0	
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	10	16:20-16:30 (10 mins) Break					10	
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	20	Special Lecture 1 by Prof. Akio Yamamoto, "MOVPE growth and applications of InN, In-rich InGaN and In-rich InAlN"	[Invited, 3-02] "The development of halide double perovskites" Prof. Feng Wang	[Invited, 4-02] "Enhanced channel mobility of hydrogen-terminated diamond field-effect transistors utilizing a hexagonal boron nitride gate insulator" Prof. Yosuke Sasama	16:30-16:40 (10 mins) Break		20	
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18	35	Special Lecture 2 by Prof. Masahiro Horibe, "Formation of a Quantum Global Business Ecosystem"	[3-03] "Coevaporation of all-inorganic perovskite double heterostructures CuPbBr ₂ /Cu ₂ SnBr ₃ /CuPbBr ₂ on single crystalline mica substrate", Yemu Yang et al.	[4-03] "Unconventional thermal conductivity of zigzag graphene nano-meshes", Takamoto Yokosawa et al.	16:40-18:10 (90 mins) Session 10 (A. Organic Materials and Devices for Electronics) Chairs: Prof. Shigeki Naka, Prof. Masahiro Nakano		35	
	40		[3-04] "Effect of mixed 2D-cation passivation towards improved durability of perovskite solar cells and dynamics of 2D-perovskites under light irradiation and at high temperature", Hiroyuki Kanda et al.	[4-04] "Room-temperature fabrication of multi-dimensional carbon-metal nanocomposites for energy applications", Masaki Tanemura et al.	[Invited, 10-01] "Disordered lasers using molecular glasses or paper" Prof. Thomas Fuhrmann-Lieker		40	
	45		[3-05] "Efficient and stable perovskite solar cells and self-powered photodetectors enabled by molecular and interface engineering", ChiYu Chang Chang	[4-05] "Tailoring percolative conduction network within PTFE-CNT composite to control contact electrification behaviors", Chan Song Moon et al.	[10-02] "Study on carrier behavior in OLED with rubrene/acceptor by displacement current measurement", Hikaru Nagahama et al.		45	
	50	Closing Remarks	[3-06] "Fabrication of high-efficiency perovskite/silicon tandem photovoltaic modules using silicone encapsulants", Hanae Yamazaki et al.	[4-06] "Recovery of spin properties in focused ion beam-fabricated nitrogen-vacancy scanning probes using ultraviolet/ozone", Dai Prasanto et al.	[10-03] "Development of red circularly polarized luminescence via chiral induction and dye doping", Haoran Sun et al.		50	
	55				[10-04] "Surface plasmon resonance-enhanced photoelectrochemical flexible sensor using PEDOT:PSS thin film with nanostructured gold", Charin Seesomdee et al.		55	
					[10-05] "Wavelength dependence of photoluminescence lifetime in InGa _N quantum wells with different alloy composition", Rinku Yamagata et al.			
					[10-06] "Importance of Mg diffusion process in realizing p-channel GaN FinFETs on low-doped p-GaN films", Simranjit Singh et al.			
19	0	18:00 ~ Welcome Reception					0	
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