Photomask Japan 2025: Oral / Poster Presentations

Date	Session Time	Session No.	Session Title	Program No.	ROOM	Presentation Title	Name	Affiliation	Country
April 16 (Wed.)	9:00 - 9:10		Opening Remarks		Room 1+2				
	9:10 - 9:50	1	Opening Session Day 1/Keynote & Mask Patterning with material	1-1 (Keynote)	Room 1+2	The Battle between Exponential Functions: AI, Supercomputers, Chips and Litho Scaling	Martin van den Brink	ASML	Netherlands
	9:50 - 10:10			1-3 (Invited)		Exploring Innovative Absorber Materials for EUV Masks	Kazunori Seki	Tekscend Photomask Corp.	Japan
	10:10 - 10:25			1-4		Dose Reduction Strategies for Low-n Absorber using Pupil and Mask Bias Optimization at 0.33NA EUV Lithography	Rajiv Sejpal	IBM Research	U.S.A
	10:25 - 10:40			1-5		Fundamental Characterization of Mask with Variable Ta Thickness	Joern-Holger Franke	imec	Belgium
	10:40 - 10:55			1-6		Mask absorber impact on local MEEF for pitch 32 nm hexagonal contact hole printing with low-n EUV masks	Andreas Frommhold	imec	Germany
	10:55 -11:25		Break						
	11:25 - 11:55	2	Keynote & Energy Sustainability and Productivity	2-1 (Keynote)	Room 1+2	Contribution of Fusion Energy to Energy Sustainability and Productivity	Mizuki Sakamoto	University of Tsukuba	Japan
	11:55 - 12:10			2-2		Energetiq's Next Generation EQS-10 DPP EUV Light Source Update	Kosuke Saito	Hamamatsu Photonics K.K.	Japan
	12:10 - 12:25			2-3		EUV source improvements and other applications	Shunichi Morimoto	Ushio Inc.	Japan
	12:25 -13:55		Lunch Break						
	13:55 - 14:15	3	Large size panel technology	3-1 (Invited)	Room 1+2	Manufacturing Transformation Era: Process Solution Technologies for Panel-Level Packaging Based on Wafer-Level Quality	Kitazawa Ryoya	ULVAC, Inc.	Japan
	14:15 - 14:35			3-2 (Invited)		Manufacturing processes, photomasks, and panel specification requirements for ultra-high PPI VR displays on glass substrates	Charles Annis	Omdia	Japan
	14:35 - 14:50			3-3		Advancing sustainability - The impact of Solid State Laser technology in display mask writers	Schef Peter	Mycronic AB	Sweden
	14:50 - 15:05			3-4		Setting a new photomask quality standard for high-end display manufacturing	youngjin park	Mycronic co., ltd	Republic of Korea
	15:05 -15:25		Break						
	15:25 - 15:45	4	Mask Patterning 1	4-1 (Invited)	Room 1+2	13th eBeam Initiative Annual Luminaries Survey Predicts Photomask Market and Equipment Growth	Aki Fujimura	eBeam Initiative	U.S.A
	15:45 - 16:00			4-3		Bright-field mask readiness: a key enabler for logic scaling roadmap in high-NA EUV lithography	Kenichi Miyaguchi	imec	Belgium
	16:00 - 16:15			4-4		Stochastic-Aware Compact OPC Model for Reducing Failure Probability	Renyang Meng	imec	Belgium
	16:15 -16:50		Break						
	16:50 - 17:10	5	Mask repair	5-1 (Invited)	Room 1+2	Revealing High-NA Mask Phase-Effects by AIMS(R) EUV Metrology	Matthias Roesch	Carl Zeiss SMT GmbH	Germany
	17:10 - 17:25			5-2		Efficient Defect Repair Methodology for N2 EUV Masks by Using a Femto-Pulse Laser Repair System	Sheng-Chang Hsu	Taiwan Semiconductor Manufacturing Company, Ltd.	Taiwan
	17:25 - 17:40			5-4		Mask three-dimensional effects in repaired patterns	Yuto Tameno	Kioxia Corporation	Japan
	17:40 - 17:55			5-6		Printability Simulations of EUV Photomask Contamination Clean and Repair	Tod Robinson	Bruker RMR	U.S.A

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April 17 (Thu.)	9:00 - 9:30	6	Opening Session Day2/Keynote & MDP	6-1 (Keynote)	Room 1	Rapid Production of Next-Generation Semi Technologies: Accelerated Time-to-Market and Advanced Integration with High-Productivity Direct-Write E-Beam Litho	Ken MacWilliams	Multibeam Corporation	U.S.A
	9:30 - 9:50			6-2 (Invited)		Update on eBeam Multigon Format Optimizations	Kokoro Kato	Synopsys	Japan
	9:50 - 10:05			6-3		A study that enhances the accuracy of Multigon-based Curvilinear Mask Rule Check	Satoshi Mitsuno	Synopsys	Japan
	10:05 - 10:20			6-4		Curvilinear OPC and Mask data prep for High NA lithography	Jaiin Moon	ASML	U.S.A
	10:20 - 10:35			6-5		Comparing curvilinear layouts for the verification of mask data preparation	Masakazu Hamaji	Nippon Control System Corporation	Japan
	10:35 -10:55		Break						
	10:55 - 11:10	8	Mask Metrology	8-1	Room 1	Curvilinear metrology in advance mask making process quality enhancement	Ming-Che Li	Taiwan Semiconductor Manufacturing Company, Ltd.	Taiwan
	11:10 - 11:25			8-2		High-NA EUV Mask CD-SEM Metrology Matching, and Contour-based Comparison of Simulation Result and Wafer Print	Joost Bekaert	imec	Belgium
	11:25 - 11:40			8-3		Actinic Blank Metrology for EUV Attenuated Phase Shift Masks	Stuart Sherwin	EUV Tech	U.S.A
	11:40 - 11:55			8-4		Challenges in Wafer Metrology for Advanced Technology Nodes	Takuya Ishida	Hitachi High-Tech Corporation	Japan
	11:55 -13:25		Lunch Break						
	13:25 - 13:45	10	Mask Inspection	10-1 (Invited)	Room 1	Intel is paving the way to State-of-the-art Anamorphic High-NA EUV Mask Manufacturing and Lithography	Safak Sayan	Intel Corporation	U.S.A
	13:45 - 14:00			10-2		Actinic patterned mask inspection for high-NA EUV lithography	Ko Gondaira	Lasertec Corporation	Japan
	14:00 - 14:15			10-3		EUV Mask Requalification Study of New EUV Blanks for Advanced Logic High Volume Production Application	Charlie Kuan	KLA Corporation	Taiwan
	14:15 - 14:30			10-4		Model based layout rendering to improve mask database inspection	Mohamed Ramadan	Photronics	U.S.A
	14:30 - 14:45			10-5		Introduction of high throughput inspection system for conventional grade mask blank	Shota Someya	HORIBA, Ltd.	Japan
	14:45 -15:00		Break						
	15:00 - 16:20	12	Poster Session	12-1	Foyer	Mask performance improvement by PLDC with n-CAR	Mayuko Matsumoto	Tekscend Photomask Corp.	Japan
				12-2		Multibeam Laser Photomask Fabrication for sub-500-nm Features via a Vertically Integrated Workflow	Sander Schellingerhout	Raith Group	Germany
				12S-3		Evaluation of hydrogen plasma and ion injection to the EUV mask using high power EUV irradiation tool at NewSUBARU	Hayato Ishida	University of Hyogo	Japan
				12-4		Investigation Of EUV Photomask Degradation With μ-X-Ray Fluorescence Spectroscopy	Vinh Truong	PTB	Germany
				12S-5		Out Of Band Reflectometer for EUV Lithography at NewSUBARU BL-3 Beamline	Takumi Nukisato	University of Hyogo	Japan
				12-6		Background level theory for EUV multilayer deposition	Naoki Hayase	National Institute of Information and Communications Technology	Japan
				12-7		Development and Prospects of advanced EUV pellicle carrier	Asheesh Nautiyal	Gudeng Precision Industry Co., Ltd.	Taiwan
				12-8		Modeling of the Emission Spectrum from High-Density Laser Pumped Tin Plasmas for the Extreme Ultra-Violet Lithography	Akira Sasaki	National Institutes for Quantum Science and Technology	Japan
				12S-9		Narrowing of EUV bandwidth by Oblique Laser Incidence	Hayato Yazawa	Utsunomiya University	Japan
				12-10		Flexible, Actinic EUV Mask Blank Qualification Tools	Andreas Biermanns-Foeth	RI Research Instruments GmbH	Germany
				12-11		Stand-alone actinic EUV metrology tools based on available building blocks and experience	Andreas Biermanns-Foeth	RI Research Instruments GmbH	Germany
				12-12		Femtosecond laser machining assisted with anisotropic chemical etching and treatment of the silicon surface with anti-reflection, self-cleaning, regular inverted pyramid structure	Dongkai Chu	Shandong University	China
				12-13		Predicting sub-50 nm trench hotspots in ArFi lithography for DFM using machine learning	Chun-Ming Wang	National Sun Yat-Sen University	Taiwan
				12-14		Particle Inspection Capability for Mature Masks with MATRICS X783 Inspection Tool	Federico Romeo	DNP Photomask Europe S.p.A.	Italy
				12-15		Context-Sensitive Smart Defect Monitoring	Yu-Ting Jeff Chen	iCADA GmbH	Taiwan
				12-16		New Reticle-like Sensors Deliver Fast, Easy Measurements Inside the Process Chamber	Vidya Vijay	Nordson Test & Inspection	U.S.A
				12-17		Multigon curvy mask manufacturability and advantage	Yusuke Ban	Tekscend Photomask Corp.	Japan
				12-18		Mask Making and Proximity Control to Support High NA EUV Imaging Critical Use Cases	Cyrus Tabery	ASML	U.S.A
	16:20 -16:40		Break						
	16:40 - 18:10		Panel Discussion		Room 1	Talent recruiting, education and management insemiconductor/photomask industry			

Date	Session Time	Session No.	Session Title	Program No.	ROOM	Presentation Title	Name	Affiliation	Country
April 17 (Thu.)	9:00 - 9:20	7	Opening Session Day 2/Defect, Handling, Analysis and Pellicle	7-1 (Invited)	Room 2	Latest developments on CNT pellicles for high power EUV lithography	Takeshi Kondo	LINTEC OF AMERICA, INC.	U.S.A
	9:20 - 9:35			7-2		Development Status and Future Prospects of CNT Pellicle	Tenga Takahashi	Mitsui Chemicals, Inc.	Japan
	9:35 - 9:50			7-3		High Durability Beryllium-based Membrane for EUV Pellicles	Takashi Tanimura	NGK Insulators, LTD.	Japan
	9:50 - 10:05			7-4		A study of ESD and residual metallic contamination control in EUV pod and mask	Tu Elson	Gudeng Precision Industrial Co., LTD	Taiwan
	10:05 - 10:20			7-5		EUV Pod Design Considerations for "6 by 12 inch" Reticles	Huaping Wang	Entegris, Inc.	U.S.A
	10:20 - 10:35			7-6		From EUV-Scatterometry To X-ray Fluorescence: Tools For Photomask Metrology	Analia Fernandez Herrero	PTB Berlin	Spain
	10:35 -10:55		Break						
	10:55 - 11:15	9	Resist related technologies	9-1 (Invited)	Room 2	History and future outlook for advanced EB resist development	Kei Yamamoto	FUJIFILM Corporation	Japan
	11:15 - 11:30			9-2		The antistatic agent aquaSAVE™ for advanced e-beam lithography	Shunsuke Kaname	Mitsubishi Chemical Corporation	Japan
	11:30 - 11:45			9-3		Introduction to TOK Materials	Tsuyoshi Kurosawa	TOKYO OHKA KOGYO CO., LTD.	Japan
	11:45 -13:25		Lunch Break						
	13:25 - 13:45	11	NIL	11-1 (Invited)	Room 2	Advanced Mastering Technology enabling future Optical Designs	Bríd Connolly	Tekscend Photomask Corp.	Germany
	13:45 - 14:05			11-2 (Invited)		Metastructures and the Advanced Mask Pipeline: Unlocking the Future of AR	Bo Zhao	Meta	U.S.A
	14:05 - 14:20			11-3		Enhanced Nanoimprint Lithography Throughput Performance Using Solvent-based Ink-jetted Resists	Masaki Ogasawara	Canon Inc.	Japan
	14:20 - 14:35			11-4		Development Status of Advanced Multi-patterning Technology for Nanoimprint Template	Masakazu Mori	Dai Nippon Printing Co., Ltd.	Japan
	14:35 - 14:50			11-5		Optimization of NIL and Associated Pre- and Post-Processes for the Fabrication of Advanced Devices	Masaki Saito	Canon Inc.	Japan

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April 18 (Fri.)	9:00 - 9:30	13	Opening Session Day 3/Keynote & the mask writer and mask inspection /metrology to deliver quality content	13-1 (Keynote)	Room 1+2	Living at the Edge: Shaping the Future of Edge AI with Applied Materials	David Britz	Applied Materials	U.S.A
	9:30 - 9:50			13-2 (Invited)		Semiconductor photomask technology and mask writer market	Vishal Saroha	Yole Group	France
	9:50 -10:10		Break						
	10:10 - 10:30	14	Mask blanks	14-1 (Invited)	Room 1+2	Model for EUV Multilayers:Quantified Intermixing via the Effective Medium Approximation	Seulki Roh	Samsung Electronics Co., Ltd.	Republic of Korea
	10:30 - 10:50			14-2 (Invited)		New EUV mask and blanks for DRAM 1a nm and beyond	Hanekawa Hiroshi	AGC Inc.	Japan
	10:50 - 11:10			14-3 (Invited)		Reducing Overlay Impact On High Power EUV Scanners Through Optimizing Reticle Substrate Thermal Properties	Rick Jansen	ASML	Netherlands
	11:10 - 11:25			14-4		Development of Low-n/ Mid-k Absorber Materials for EUV Mask Blanks	Kohdai Ishida	HOYA	Japan
	11:25 -12:35		Lunch Break						
	12:35 -12:55	15	Mask Patterning 2	15-1 (Invited)	Room 1+2	Stitching at resolution for High NA: an experimental process window study	Lieve Van Look	imec	Belgium
	12:55 -13:10			15-2		Time and cost-effective methodology for curvilinear masks process qualification	Darko Trivkovic	imec	Belgium
	13:10 -13:25			15-3		Mask Metrology towards Detailed Characterization of EUV Mask Contribution to Imaging Performance	Vidya Vaenkatesan	ASML	Netherlands
	13:25 -13:40			15-4		Demonstration of Projection Lithography on Curved Surfaces Using Paraboloid Mirror Optics and Flat Reticles	Toshiyuki Horiuchi	Tokyo Denki University	Japan
	13:40 -14:00		Break						
	14:00 - 14:15	16	Laser Mask Writing Technology	16-1	Room 1+2	Evaluating High-Throughput Mask Systems for Mainstream Technology Applications	Peter Henriksson	Mycronic AB	Sweden
	14:15 - 14:30			16-2		Renewal of High Throughput Laser Photomask Writers	Thomas Peoples	Applied Materials	U.S.A
	14:30 - 14:45			16-3		A new method to further reduce the CD variation on binary masks	Faraz Khavari	Mycronic AB	Sweden
	14:45 -15:05		Break						
	15:05 - 15:25	17	EB Mask Writing Technology	17-1 (Invited)	Room 1+2	Latest Advances in Multi-Beam Mask-Writing	Christoph Spengler	IMS Nanofabrication GmbH	Austria
	15:25 - 15:40			17-2		Application Field Expansion of the Multi-beam Mask Writer: MBM-4000 for High-NA EUV and MBM-2000C for Mature Node	Yuji Fujiwara	NuFlare Technology, Inc.	Japan
	15:40 - 15:55			17-3		Full-Reticle Curvilinear Inline Linearity Correction Including Variable Bias With Zero Turnaround Time	Paris Spinelli	Micron Technology, Inc	U.S.A
	15:55 - 16:10			17-4		Dose or bias? Which is the optimal GEC enabler from MPC model perspective	Yohei Torigoe	Nippon Control System Corporation	Japan
	16:10 - 16:25			17-5		Optimization of bulk-sleeve dose split parameters	Ingo Bork	Siemens Industry Software, Inc.	U.S.A
	16:25 - 16:35		Closing	17-5	Room 1+2				