

ASD 2026 Program Key

ASD Area Selective Deposition

TUT Tutorial

ASD 2026 Program Overview

Room /Time	Atrium Room	ETEC Atrium Room	NFS Auditorium
SuA		TUT1: Tutorial Session I	
MoM		ASD1-MoM: ASD and Inhibitors I ASD2-MoM: ASD and Inhibitors II	
MoA		ASD1-MoA: ASD for SC Applications ASD2-MoA: ASD Metrology, Surface Characterization and Modeling	
TuM		ASD1-TuM: ASD: Plasma, Selective Etching and Sustainability ASD2-TuM: ASD of 2D and Al ₂ O ₃	
TuA		ASD1-TuA: ASD and Inhibitors III ASD2-TuA: AI and Machine Learning for ASD	
TuP	POSTER SESSIONS		
WeM			ECO System in Albany NanoTech Complex

Sunday Afternoon, March 29, 2026

Tutorial ETEC Atrium Room - Session TUT1 Tutorial Session I Moderators: Kandabara Tapily, TEL TTCA, Albany, Christophe Vallée, University of Albany	
1:00pm	INVITED: TUT1-1 Direct Self-Assembly (DSA):From Materials to Integration, Patricia Pimenta Barros, CEA-LETI, France
2:00pm	INVITED: TUT1-5 Selectivity in Plasma Processes, Eric Liu, TEL TTCA
3:00pm	BREAK
3:30pm	INVITED: TUT1-11 Selective Epitaxy Growth of Group IV Materials for CMOS Devices, Joël Kanyandwkwé, Justine Lespiaux, Jean-Michel Hartmann, CEA/LETI-University Grenoble Alpes, France
4:30pm	INVITED: TUT1-15 Selective Thermal Atomic Layer Etching or Spontaneous Etching, Marcel Junige, Steven M. George, University of Colorado Boulder

Monday Morning, March 30, 2026

ETEC Atrium Room		
8:15am	ASD1-MoM-1 Welcome and Sponsor Thank Yous	Area Selective Deposition Session ASD1-MoM ASD and Inhibitors I Moderators: Annelies Delabie , imec and KU Leuven (University of Leuven), Belgium, Rachel Nye de Castro , Lam Research
8:30am	INVITED: ASD1-MoM-2 From Concept to Reality: The Evolution and Impact of Area Selective ALD, Stacey Bent , Stanford University	
9:15am	ASD1-MoM-5 NHC 2.0: Surface-Dependant NHC Activation, Sean Barry , Carleton University, Canada; Zeng Rong Wong , Emmett DesRoche , Francesco Tumino , Queen's University, Canada; Shengzhuo Wang , University of Minnesota; Eden Goodwin , Carleton University, Canada; Alastair McLean , Queen's University, Canada; Matthew Neurock , University of Minnesota; Cathleen Crudden , Queen's University, Canada	
9:30am	ASD1-MoM-6 Area Selective Ruthenium Deposition with Dual Inhibitors, Kai-Hung Yu , Tarek Dinar , TEL Technology Center America; Ryota Yonezawa , Yuji Otsuki , Takumi Nishinobo , TEL Technology Center America, Japan; Joshua Mayersky , Gyana Pattanaik , TEL Technology Center America; Hirokazu Aizawa , Hidenao Suzuki , TEL Technology Center America, Japan; Cory Wajda , TEL Technology Center America	
9:45am	ASD1-MoM-7 Blocking the Atomic Layer Deposition of Al ₂ O ₃ : Combined Effects of Precursor, Co-reactant, Blocking Molecule, and Reactor Temperature, Jay Swarup , James Jensen , Burke Combs , James Engstrom , Cornell University	
10:00am	BREAK	Area Selective Deposition Session ASD2-MoM ASD and Inhibitors II Moderators: Sang Hoon Ahn , Samsung Electronics, Seán Barry , Carleton University, Canada
10:30am	INVITED: ASD2-MoM-10 Enabling Area-Selective Atomic Layer Deposition through Locally Activated and Deactivated Approaches, Woo Hee Kim , Hanyang University ERICA, Republic of Korea	
11:00am	ASD2-MoM-12 Control of Selectivity in SiN ALD Using Hydrazine, Hayato Murata (Student) , Kumamoto University, Japan; Yoshifumi Wada , Hideharu Shimizu , TAIYO NIPPON SANSO Corp., Japan; Takeshi Momose , Kumamoto University, Japan	
11:15am	ASD2-MoM-13 Selective Surface Reactivation of Small-Molecule Inhibitors to Enable Area-Selective Deposition, Joris Verdin (Student) , IMEC / KU Leuven, Belgium; Akhilesh Kumar Mandal , IMEC, Belgium; Ainhua Romo Negreira , Tokyo Electron, Belgium; Marleen van der Veen , IMEC, Belgium; Takahiro Hakamata , Tadahiro Ishizaka , Tokyo Electron, Belgium; Robert Clark , Tokyo Electron; Annelies Delabie , IMEC / KU Leuven, Belgium	
11:30am	ASD2-MoM-14 Dual-Purpose Catalyst and Inhibitor for Low-Temperature AS-ALD of SiO ₂ Thin Films, Jeong-Min Lee , Stacey Bent , Stanford University	
11:45am	ASD2-MoM-15 Octadecylphosphonic Acid Self-Assembled Monolayers for Selective Hardmask Deposition on a Carbon/Metal Oxide System, Anna Kolln (Student) , Maggy Harake , Stanford University; Stacey Bent , Stanford University	
12:00pm	ASD2-MoM-16 Role of Precursor and Alkanethiol Chain Length on Area Selective Deposition of Aluminum and Hafnium-Containing Films, Nicholas Strandwitz , Lehigh University	

Monday Afternoon, March 30, 2026

ETEC Atrium Room		
1:30pm	INVITED: ASD1-MoA-1 Atomic-Level Healing and Sculpting: The New Frontier of Area-Selective Deposition in Memory Fabrication, Francois Fabreguette , Tim Quick, Erik Byers, Gurtej Sandhu, Micron Technology	Area Selective Deposition Session ASD1-MoA ASD for SC Applications Moderators: Dennis Hausmann , Lam Research Corp, Erwin Kessels , Eindhoven University of Technology, Netherlands
2:00pm	ASD1-MoA-3 Establishing High-Temperature Area-Selective Deposition Process of SiN through Controlled Surface Fluorination, Haonan Liu , Ken Okoshi, Hiroki Murakami, Yamato Tonegawa, Tokyo Electron Technology Solutions Limited, Japan	
2:15pm	ASD1-MoA-4 Selective Deposition of HfO ₂ Films, Rachel Nye de Castro , Francisco Freire-Fernandez, Elham Mohimi, Lam	
2:30pm	ASD1-MoA-5 GeTe Thickness Profile Alteration by Proximity Effects During Area-Selective Atomic Layer Deposition in Nanotrenches, Annelies Delabie , imec and KU Leuven (University of Leuven), Belgium; Jyoti Sinha, KU Leuven and imec, Belgium; Marleen van der Veen, Laura Nyns, Johan Swerts, imec, Belgium; Nicholas M. Carroll, Gregory Parsons,	
2:45pm	ASD1-MoA-6 Area-Selective Atomic Layer Deposition Using Small Molecule Inhibitors in High Aspect Ratios Structures, Olaf Bolkenbaas (Student) , Mike van de Poll, Pengmei Yu, Marc Merckx, Wilhelmus Kessels, Eindhoven University of Technology, The Netherlands; Tania Sandoval, Universidad Técnica Federico Santa María, Chile; Adriaan Mackus, Eindhoven University of Technology, The Netherlands	
3:00pm	ASD1-MoA-7 Area-Selective Molecular Layer Deposition of Polyamide on EUV Resists versus Si-Based Underlayers for 300 mm Wafer Processing, Van Long Nguyen , Christophe Vallee, University at Albany-SUNY; Ornella Sathoud, Jonathan Abreu, Rinus Lee, Danny Newman, Cory Wajda, Kandabara Tapily, Gert Leusink, TEL Technology Center, America, LLC, USA	
3:15pm	BREAK	Area Selective Deposition Session ASD2-MoA ASD Metrology, Surface Characterization and Modeling Moderators: Adrie Mackus , Eindhoven University of Technology, Netherlands, Ralf Tonner-Zech , Wilhelm-Ostwald-Institute für Physikalische und Theoretische Chemie, Germany
3:45pm	INVITED: ASD2-MoA-10 Development of Area-Selective ALD Processes Using In Situ Optical Diagnostics, Sumit Agarwal , Colorado School of Mines, USA	
4:15pm	ASD2-MoA-12 Characterization of Thin and Selective Film Depositions on v-Groove ASD Test Structures, Thomas Werner , Chipmetrics Oy, Germany; Jussi Kinnunen, Feng Gao, Chipmetrics Oy, Finland; Rachel Nye de Castro, Lam Research; Karsten Lamann, Tascon GmbH, Germany; Lysann Kassner, Mathias Franz, Fraunhofer ENAS, Germany	
4:30pm	ASD2-MoA-13 Co-optimized Process and Metrology Accelerates Molybdenum Contact Development, Zhebo Chen , Applied	
4:45pm	ASD2-MoA-14 Hydrogenolysis of Aniline on Transition Metal Surfaces: Effects of Temperature and Electronic Structure, Matías Picuntureo , Universidad Técnica Federico Santa María, Chile; Marc J. M. Merckx, Eindhoven University of Technology, Netherlands; Christopher Jezewski, Scott B. Clendenning, Intel Corporation; Adriaan J.M. Mackus, Eindhoven University of Technology, Netherlands; Tania E. Sandoval, Universidad Técnica Federico Santa María, Chile	
5:00pm	ASD2-MoA-15 Organic Functionalization of H-terminated Si Surfaces to Inhibit Atomic Layer Deposition of Al ₂ O ₃ , Andrew Kaye (Student) , Colorado School of Mines; Bhushan Zopé, Intermolecular, Inc.; Xinjian Lei, Ronald Pearlstein, Haripin Chandra, EMD Electronics; Sumit Agarwal, Colorado School of	
5:15pm	ASD2-MoA-16 Adsorption Behavior of ALD Precursors on Si, SiO ₂ and SiN: Simulation and Experimental Investigation, Genki Hayashi , Zeyuan Ni, Yumiko Kawano, Shinichi Ike, Shuji Azumo, Tetsuya Goto, Tokyo Electron Technology Solutions Limited,	

Tuesday Morning, March 31, 2026

ETEC Atrium Room		
8:30am	INVITED: ASD1-TuM-1 Versatile Strategies for ASD Optimization Using Super-Cycles, Marceline Bonvalot , <i>Martial Santorelli</i> , LTM - MINATEC - CEA/LETI, France; <i>Christophe Vallée</i> , SUNY College of Nanoscale Science and Engineering	Area Selective Deposition Session ASD1-TuM ASD: Plasma, Selective Etching and Sustainability Moderators: Han-Bo-Ram Lee , Incheon National University, Republic of Korea, Marko Tuominen , ASM
9:00am	ASD1-TuM-3 Self-Aligned Patterning by Area-Selective Etching of Polymers and Area-Selective Atomic Layer Deposition: Decreasing Polymer Flow and Activating Noncatalytic Surface, Valtteri Lasonen (Student) , <i>Piyumi Liyana Pathiranaage</i> , <i>Mykhailo Chundak</i> , <i>Marko Vehkamäki</i> , University of Helsinki, Finland; <i>Matthias Carnoy</i> , <i>Benjamin Borie</i> , ATLANT 3D, Denmark; <i>Silvia Armini</i> , IMEC, Belgium; <i>Mikko Ritala</i> , University of Helsinki, Finland	
9:15am	ASD1-TuM-4 Leveraging Topographic Etch Selectivity: Atomic Layer Etch Pitch Splitting (Aps™), <i>Robin Athle</i> , <i>Reza Jafari Jam</i> , <i>Yoana Ilarinova</i> , <i>Fabian Veid</i> , <i>Alfred Andersson</i> , <i>Svetlana Ivanova</i> , <i>Kishwar Sultana</i> , <i>Asif Muhammad</i> , <i>Mostafa Torbati</i> , <i>Intu Sharma</i> , <i>Hesamedin Safavi</i> , AlixLabs A.B., Sweden; <i>Fred Roozeboom</i> , University of Twente, Netherlands; Dmitry Suyatin , <i>Jonas Sundqvist</i> , <i>Amin Karimi</i> , AlixLabs A.B., Sweden	
9:30am	ASD1-TuM-5 Phase and Surface Facet Dependent Etching of High-k Oxides for Selective Atomic Layer Etching, Michael Nolan , <i>Rita Mullins</i> , Tyndall Institute, Ireland	
9:45am	ASD1-TuM-6 Enabling Bottom-up Gap Fill and Selective Metal Deposition via NH3 Plasma-based AS-ALD, <i>Yoenju Choi</i> , <i>Jeong Hyun Park</i> , <i>Yoona Choi</i> , Woojin Jeon , Kyung Hee University, Republic of Korea	
10:00am	ASD1-TuM-7 Perfect Selectivity vs Practical Sustainability in ASD, Nupur Bihari , Lam Research Corporation	
10:15am	BREAK	
10:45am	INVITED: ASD2-TuM-10 Selective Heterogeneous Integration of TMDs via Single-Source Spin-on Chemistry, Zakaria Al Balushi , University of California at Berkeley	Area Selective Deposition Session ASD2-TuM ASD of 2D and Al₂O₃ Moderators: Robert Clark , TEL, Gregory Parsons , North Carolina State University
11:15am	ASD2-TuM-12 Self-Aligned Lateral MoS ₂ -TiS ₂ Heterostructures via Area-Selective ALD of TiS ₂ on CVD MoS ₂ , Lucas G. Cooper (Student) , University of Michigan; <i>Pawan Kumar</i> , <i>Pierre Morin</i> , <i>Benjamin Groven</i> , IMEC, Belgium; <i>Ian E. Campbell</i> , IMEC; <i>Ageeth A. Bol</i> , University of Michigan	
11:30am	ASD2-TuM-13 Laser-Activated Area-Selective Atomic and Molecular Layer Deposition on 2D Materials, Aleksei Emelianov , New York University; <i>Kamila Mentel</i> , University of Jyväskylä, Finland; <i>Amr Ghazy</i> , <i>Joona Pekkanen</i> , Aalto University, Finland; <i>Yu-Han Wang</i> , <i>Andreas Johansson</i> , University of Jyväskylä, Finland; <i>Maarit Karppinen</i> , Aalto University, Finland; <i>Mika Pettersson</i> , University of Jyväskylä, Finland	
11:45am	ASD2-TuM-14 Acetic Acid-Modulated Al ₂ O ₃ Atomic Layer Deposition on Monolayer MoS ₂ for Controlled Nucleation, Hwan Oh , Brookhaven National Laboratory, Republic of Korea; <i>Qin Wu</i> , Brookhaven National Laboratory, China; <i>Suji Park</i> , Brookhaven National Laboratory, Republic of Korea; <i>Kim Kisslinger</i> , Brookhaven National Laboratory; <i>Chang-Yong Nam</i> , Brookhaven National Laboratory	
12:00pm	ASD2-TuM-15 Aluminum Precursor Impact on Selectivity for Dielectric on Metal Selective Deposition, Florian Preischel , Leibniz Institute for Solid State and Materials Research, Germany; <i>Jiyeon Kim</i> , <i>Dennis Hausmann</i> , <i>Alexander Fox</i> , LAM Research; <i>Harish Parala</i> , <i>Anjana Devi</i> , Leibniz Institute for Solid State and Materials Research, Germany	
12:15pm	ASD2-TuM-16 Area-Selective Atomic Layer Deposition of Al ₂ O ₃ Film Using Bulky Al Precursor AlMe ₂ (iPr-AMD), Akihiro Nishida , <i>Atsushi Yamashita</i> , <i>Takuya Takahashi</i> , <i>Masaki Enzu</i> , <i>Ryota Fukushima</i> , <i>Tomoharu Yoshino</i> , ADEKA CORPORATION, Japan	

Tuesday Afternoon, March 31, 2026

ETEC Atrium Room		
1:30pm	INVITED: ASD1-TuA-1 Area-Selective ALD with Polymer Masks: Deposition Mechanisms and Trade-offs, <i>Katherine Young, Andy Hsiao, Harley Hayden</i> , Georgia Tech Research Institute; <i>Amy Brummer, Chris Yang</i> , Georgia Institute of Technology	Area Selective Deposition Session ASD1-TuA ASD and Inhibitors III Moderators: Anjana Devi , Leibniz Institute for Solid State and Materials Research, Germany, Paul Ragogna , Western University, Canada
2:00pm	ASD1-TuA-3 Photoresists as Inhibitor for Area-Selective ALD of Oxide Thin Films, <i>Ludovic Hahn (Student)</i> , <i>Chloé Guerin, Raphaël Feougier, Nicolas Gauthier, Marc Veillerot, Vincent Jousseau</i> , CEA-LETI, France	
2:15pm	ASD1-TuA-4 Progress Toward Multi-Material Area Selective Deposition, <i>Jeremy Thelven (Student)</i> , <i>Woonkyu Youn, Gregory Parsons</i> , North Carolina State University	
2:30pm	ASD1-TuA-5 Area-Selective Deposition as a Solution to Edge-Induced Shunting in Solar Cells, <i>Nilesh Nilesh (Student)</i> , Indian institute of Technology Madras, India; <i>Namitha Dsouza, Jatin Kumar Rath, Somnath Chanda Roy</i> , Indian Institute of Technology Madras, India	
2:45pm	INVITED: ASD1-TuA-6 Accelerating Future Logic Devices with Precision Area Selective Deposition, <i>Yamato Tonegawa</i> , TEL TTS, Japan	
3:15pm	BREAK	Area Selective Deposition Session ASD2-TuA AI and Machine Learning for ASD Moderators: Kayvan Kashefi , Applied Materials, Tania Sandoval , Universidad Tecnica Federico Santa Maria, Chile
3:45pm	INVITED: ASD2-TuA-10 ALD Precursor Design Through Atomic-Level Simulation, <i>Yusuke Asano</i> , Matlantis corporation, Japan	
4:15pm	ASD2-TuA-12 AI-Enabled Screening Framework for Precursor and Inhibitor Selection in Area-Selective Deposition, <i>Han-Bo-Ram Lee, Bonwook Gu (Student)</i> , Incheon National University, Republic of Korea	
4:30pm	ASD2-TuA-13 Computational Modeling Set in Motion: A Dynamic & Statistical View on SMI Layer Blocking Events Powered by Machine-Learned Potentials, <i>Philipp Wellmann (Student)</i> , Leipzig University, Germany	
4:45pm	ASD2-TuA-14 Establishing Boundaries: Using Machine Learning to Design Aminosilane SMIs, <i>Marshall Atherton (Student)</i> , Carleton University, Canada; <i>Jiyeon Kim, Dennis Hausmann</i> , Lam Research Corporation; <i>Sean Barry</i> , Carleton University, Canada	
5:00pm	ASD2-TuA-15 Surface Reaction Analysis of Area-Selective Co ALD Using a Machine-Learning Potential, <i>Naoki Tamaoki, Jun Yamaguchi, Noboru Sato, Atsuhiko Tsukune, Yukihiro Shimogaki</i> , The University of Tokyo, Japan	
5:15pm	ASD2-TuA-16 Understanding NHC Blocking Efficiency on Copper and Gold: From Surface Assembly to Precursor Inhibition, <i>Franz Thiemann (Student)</i> , <i>Patrick Melix</i> , Leipzig University, Germany; <i>Emmett Desroche, Francesco Tumino, Cathleen Crudden</i> , Queen's University, Canada; <i>Ralf Tonner-Zech</i> , Leipzig University, Germany	

Area Selective Deposition

Room Atrium Room - Session ASD-TuP

Area Selective Deposition Poster Session

5:30pm

ASD-TuP-1 Triazolydene Small Molecule Inhibitor for Area-Selective Atomic Layer Deposition of High κ -Dielectric Materials, **Giang Hoang Pham**, Marco Antonio Quintanilla-Riviere, Jordan Bentley, University of Western Ontario, Canada; Dana Nanan, Cathleen Crudden, Queen's University, Canada; Paul Ragogna, University of Western Ontario, Canada

ASD-TuP-3 Surface Dependent Ethanol Inhibition for Area Selective Deposition on SiO₂ and TiN via DFT Calculations, **Jiwan Hong (Student)**, Seoeun Yoon, Soomin Yoo, Woojin Jeon, Department of Materials Science and Engineering, Kyung Hee University, Republic of Korea

ASD-TuP-5 Deriving Realistic Blocking Layer Models for Computational Approaches to Area-Selective Deposition, **Fabian Pieck**, Ralf Tonner-Zech, Leipzig University, Germany

ASD-TuP-7 Integrating Catalytic PMMA Etching with PMMA-Inhibited ASD of HfO₂, **Enzo Novoselic (Student)**, Christophe Vallée, Natalya Tokranova, SUNY College of Nanoscale Science and Engineering

ASD-TuP-9 Area-selective ALD of NbO_x on TiN/SiO₂ via catalytic O₂ dissociation on TiN for bottom electrode selective DRAM capacitor integration, **Yujin Lim (Student)**, Kyung Hee University, Republic of Korea; Myeong Ho Kim, Jin-Sik Kim, UP Chemical Co., Ltd., Republic of Korea; Woojin Jeon, Kyung Hee University, Republic of Korea

ASD-TuP-11 Catalytic Area-Selective Deposition of TiO₂ Dielectric Thin Films, **Seungwoo Lee (Student)**, Soomin Yoo, Gaeul Kim, Woojin Jeon, Kyung Hee University, Republic of Korea

ASD-TuP-13 Area-Selective ALD of MoO₂ using Ethanol for DRAM Capacitor Electrodes, **Woojin Jeon**, **Seoeun Yoon (Student)**, Soomin Yoo, Jiwan Hong, Kyung Hee University, Republic of Korea

ASD-TuP-15 Silane Interactions with Non-Silicon Surfaces, **Chad Brick**, 11 Steel Road East

ASD-TuP-17 Influence of Selective Nucleation on Crystallinity of AlN on Various Substrate Surface by ALD, **Partha Mukhopadhyay**, Tokyo Electron America, USA; Ivan Fletcher, Tokyo Electron America; Zuriel Caribe, Jim Fulford, Tokyo Electron America, USA

ASD-TuP-19 Effect of NH₃ Addition on Bottom-Up Filling in Mo Ald Using Mo(Co)₆, **Yukihiro Shimogaki**, Souga Nagai, Jun Yamaguchi, Noboru Sato, Naoki Tamaoki, Atsuhiko Tsukune, The University of Tokyo, Japan

ASD-TuP-21 Selective Area Epitaxy of van der Waals Materials, **Ryan Trice (Student)**, Stephanie Law, Penn State University

ASD-TuP-23 Impact of Silica Surface Chemistry on Nucleation of Ruthenium Area-Selective Atomic Layer Deposition, **Shixian Ha (Student)**, Stony Brook University/Brookhaven National Laboratory, China; Hwan Oh, Won Il Lee, Brookhaven National Laboratory, Korea (Democratic People's Republic of); Md Istiaque Chowdhury, Veeco Instruments Inc., Bangladesh; Xiao Tong, Mingzhao Liu, Chang-Yong Nam, Brookhaven National Laboratory

ASD-TuP-25 Inhibition of Atomic Layer Deposition of Al₂O₃ with Trimethyl Aluminum Precursor by Perfluoroalkylpolyether Thin Layer, **Hiroaki Iwamoto**, Yuki Shibutani, AGC Inc., Japan

ASD-TuP-27 Area Selective Atomic Layer Deposition of Ruthenium with Pinacolborane as a Small Molecule Inhibitor, **Sundas Ismaeel (Student)**, University of Helsinki, Finland; Heta Elisa Nieminen, ASM Microchemistry Ltd., Finland; Mykhailo Chundak, Mikko Ritala, University of Helsinki, Finland

ASD-TuP-29 Topology-Directed Silicide Formation: An Explanation for the Growth of C49-TiSi₂ on the Si(100) Surface, **Lukas Hückmann (Student)**, Jonathon Cottom, Jörg Meyer, Leiden University, Netherlands; Emilia Olsson, University of Amsterdam, Netherlands

ASD-TuP-31 Area Selective Deposition of Metal on Dielectric using Aldehyde Inhibitor and Novel Ruthenium Precursor, **Chi Thang Nguyen**, Argonne National Laboratory, USA and Leibniz-Institute for Solid State and Materials Research Dresden, Germany; Bratin Sengupta, Argonne National Laboratory, USA; Harish Parala, Anjana Devi, Leibniz Institute for Solid State and Materials Research Dresden, Germany; Jeffrey W. Elam, Argonne National Laboratory, USA

ASD-TuP-33 Quantifying Fidelity and Resolution in Direct-Write Chemical Vapor Deposition, **Eeshan Ketkar (Student)**, University of Chicago; Koichi Tanaka, Argonne National Laboratory, USA; Supratik Guha, University of Chicago

ASD-TuP-35 Selective Infiltration Into Polymeric Materials for Advanced Nanofabrication, **Jordi Antoja-Leonart**, Teresa Elenes-Cervantes, Olga Muntada, Sara Durán, Ricard Noy, Francesc Perez-Murano, Marta Fernández-Regúlez, Institute of Microelectronics of Barcelona (IMB-CNM, CSIC), Spain

ASD-TuP-37 Area Selective Deposition of Aluminum Oxide on Native Oxide Surfaces for Dielectric on Dielectric (DoD) and Dielectric on Metal (DoM) Applications, **Drew Hood**, Rong Zhao, Entegris

ASD-TuP-39 Engineered MoO₃ Thickness Control for Area-Selective Chemical Vapor Deposition of Two-Dimensional MoS₂, **Chu-Te Chen (Student)**, Department of Materials Design and Innovation, The State University of New York at Buffalo; Anthony Cabanillas, Huamin Li, Department of Electrical Engineering, The State University of New York at Buffalo; Fei Yao, Department of Materials Design and Innovation, The State University of New York at Buffalo

ASD-TuP-41 Area Selective Deposition of Si Base Film by PECVD, **Shivan Antar (Student)**, University at Albany-SUNY

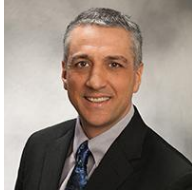
ASD-TuP-43 Enhanced Via Rc Reduction Using Advanced Self-Assembled Monolayers in Scaled BEOL Cu Barrier-Seed Integration, **Zheng Ju**, AMAT

ASD-TuP-45 Selective Liner for Via Rc Reduction in Advanced BEOL Cu Barrier Seed Integration, **Yang Zhou**, AMAT

ASD-TuP-47 Influence of Substrate Interactions on the Growth of MoO₃ on Gr/Ru(0001) and HOPG, **Buddhika Alupotha Gedara**, Maria Sushko, Zdenek Dohnalek, Zbynek Novotny, Pacific Northwest National Laboratory

Wednesday, April 1, 2026

ECO System in Albany NanoTech Complex NFS Auditorium



8:10-8:30 am: *Opening Remarks*

John Lacoponi, NY Creates Senior Director of Technology Strategy



8:30-9:10 am: *“Semiconductor Industry Outlook and Opportunity for a Digitized Society”*

Akihisa Sekiguchi, Corporate Fellow, GM, Corporate Innovation Division, Tokyo Electron Limited (TEL)



9:10-9:50 am: *“When Photons Meet Production: Bringing Silicon Photonics into High-Volume CMOS Manufacturing”*

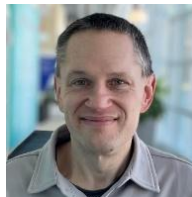
Massud Aminpur, Distinguished Member of Technical Staff Fab8, Advanced Module Engineering Globalfoundries

9:50-10:10 am: COFFEE BREAK



10:10-10:50 am: *“IBM’s Roadmaps of Advanced Logic Technology and Packaging: The Key Process Challenges”*

Kisik Choi, Senior Manager, Advanced Logic Process Integration at IBM



10:50-11:20 am: *“Sustainable by Design: Advancing Semiconductor Manufacturing through Material Innovation”*

Nathan Stafford, Group Manager for Customer Processes - Electronics R&D team, Air Liquide



11:20 am-12:00 pm: *“Advanced Metal Deposition Processes for SC Manufacturing”*

Weize Zu, Sr. Manager, Process Engineer in MDP (Metal Deposition Product), Applied Materials

12:00-12:30 pm: Closing Remarks for the ASD Conference + Introduction of the 2027 ASD chairs/event

12:30-2:00 pm: Lunch + tour NY Creates’ Albany NanoTech Complex

Bold page numbers indicate presenter

— A —

Abreu, Jonathan: ASD1-MoA-7, 5
 Agarwal, Sumit: ASD2-MoA-10, **5**; ASD2-MoA-15, 5
 Aizawa, Hirokazu: ASD1-MoM-6, 4
 Al Balushi, Zakaria: ASD2-TuM-10, **6**
 Alupothé Gedara, Buddhika: ASD-TuP-47, **8**
 Andersson, Alfred: ASD1-TuM-4, 6
 Antar, Shivan: ASD-TuP-41, **8**
 Antoja-Leonart, Jordi: ASD-TuP-35, **8**
 Antonio Quintanilla-Riviere, Marco: ASD-TuP-1, **8**
 Armini, Silvia: ASD1-TuM-3, 6
 Asano, Yusuke: ASD2-TuA-10, **7**
 Atherton, Marshall: ASD2-TuA-14, **7**
 Athle, Robin: ASD1-TuM-4, 6
 Azumo, Shuji: ASD2-MoA-16, 5

— B —

Barry, Sean: ASD1-MoM-5, **4**; ASD2-TuA-14, **7**
 Bent, Stacey: ASD1-MoM-2, **4**; ASD2-MoM-14, **4**; ASD2-MoM-15, 4
 Bentley, Jordan: ASD-TuP-1, 8
 Bihari, Nupur: ASD1-TuM-7, **6**
 Bol, Ageeth A.: ASD2-TuM-12, 6
 Bolkenbaas, Olaf: ASD1-MoA-6, **5**
 Bonvalot, Marceline: ASD1-TuM-1, **6**
 Borie, Benjamin: ASD1-TuM-3, 6
 Brick, Chad: ASD-TuP-15, **8**
 Brummer, Amy: ASD1-TuA-1, 7
 Byers, Erik: ASD1-MoA-1, 5

— C —

Cabanillas, Anthony: ASD-TuP-39, 8
 Campbell, Ian E.: ASD2-TuM-12, 6
 Caribe, Zuriel: ASD-TuP-17, 8
 Carnoy, Matthias: ASD1-TuM-3, 6
 Carroll, Nicholas M.: ASD1-MoA-5, 5
 Chandra, Haripin: ASD2-MoA-15, 5
 Chen, Chu-Te: ASD-TuP-39, **8**
 Chen, Zhebo: ASD2-MoA-13, **5**
 Choi, Yoenju: ASD1-TuM-6, 6
 Choi, Yoona: ASD1-TuM-6, 6
 Chowdhury, Md Istiaque: ASD-TuP-23, 8
 Chundak, Mykhailo: ASD1-TuM-3, 6; ASD-TuP-27, 8
 Clark, Robert: ASD2-MoM-13, 4
 Clendenning, Scott B.: ASD2-MoA-14, 5
 Combs, Burke: ASD1-MoM-7, 4
 Cooper, Lucas G.: ASD2-TuM-12, **6**
 Cottom, Jonathon: ASD-TuP-29, 8
 Crudden, Cathleen: ASD-TuP-1, 8
 Crudden, Cathleen: ASD1-MoM-5, **4**; ASD2-TuA-16, 7

— D —

Delabie, Annelies: ASD1-MoA-5, **5**; ASD2-MoM-13, 4
 Desroche, Emmett: ASD2-TuA-16, 7
 DesRoche, Emmett: ASD1-MoM-5, 4
 Devi, Anjana: ASD2-TuM-15, 6; ASD-TuP-31, 8
 Dinar, Tarek: ASD1-MoM-6, 4
 Dohnalek, Zdenek: ASD-TuP-47, 8
 Dsouza, Namitha: ASD1-TuA-5, 7
 Durán, Sara: ASD-TuP-35, 8

— E —

Elam, Jeffrey W.: ASD-TuP-31, 8
 Elenes-Cervantes, Teresa: ASD-TuP-35, 8
 Elisa Nieminen, Heta: ASD-TuP-27, 8
 Emelianov, Aleksei: ASD2-TuM-13, **6**
 Engstrom, James: ASD1-MoM-7, **4**
 Enzu, Masaki: ASD2-TuM-16, 6

— F —

Fabreguette, Francois: ASD1-MoA-1, 5
 Feougier, Raphaël: ASD1-TuA-3, 7

Fernández-Regúlez, Marta: ASD-TuP-35, 8
 Fletcher, Ivan: ASD-TuP-17, 8
 Fox, Alexander: ASD2-TuM-15, 6
 Franz, Mathias: ASD2-MoA-12, 5
 Freire-Fernandez, Francisco: ASD1-MoA-4, 5
 Fukushima, Ryota: ASD2-TuM-16, 6
 Fulford, Jim: ASD-TuP-17, 8

— G —

Gao, Feng: ASD2-MoA-12, 5
 Gauthier, Nicolas: ASD1-TuA-3, 7
 George, Steven M.: TUT1-15, 3
 Ghazy, Amr: ASD2-TuM-13, 6
 Goodwin, Eden: ASD1-MoM-5, 4
 Goto, Tetsuya: ASD2-MoA-16, 5
 Groven, Benjamin: ASD2-TuM-12, 6
 Gu, Bonwook: ASD2-TuA-12, **7**
 Guerin, Chloé: ASD1-TuA-3, 7
 Guha, Supratik: ASD-TuP-33, 8

— H —

Ha, Shixian: ASD-TuP-23, **8**
 Hahn, Ludovic: ASD1-TuA-3, **7**
 Hakamata, Takahiro: ASD2-MoM-13, 4
 Harake, Maggy: ASD2-MoM-15, 4
 Hartmann, Jean-Michel: TUT1-11, 3
 Hausmann, Dennis: ASD2-TuA-14, 7; ASD2-TuM-15, 6
 Hayashi, Genki: ASD2-MoA-16, **5**
 Hayden, Harley: ASD1-TuA-1, 7
 Hong, Jiwan: ASD-TuP-13, 8; ASD-TuP-3, **8**
 Hood, Drew: ASD-TuP-37, **8**
 Hsiao, Andy: ASD1-TuA-1, 7
 Hückmann, Lukas: ASD-TuP-29, **8**

— I —

Ike, Shinichi: ASD2-MoA-16, 5
 Ilarinova, Yoana: ASD1-TuM-4, 6
 Ishizaka, Tadahiro: ASD2-MoM-13, 4
 Ismaeel, Sundas: ASD-TuP-27, **8**
 Ivanova, Svetlana: ASD1-TuM-4, 6
 Iwamoto, Hiroaki: ASD-TuP-25, **8**

— J —

Jafari Jam, Reza: ASD1-TuM-4, 6
 Jensen, James: ASD1-MoM-7, 4
 Jeon, Woojin: ASD1-TuM-6, 6; ASD-TuP-11, 8; ASD-TuP-13, 8; ASD-TuP-3, 8; ASD-TuP-9, 8
 Jezewski, Christopher: ASD2-MoA-14, 5
 Johansson, Andreas: ASD2-TuM-13, 6
 Jousseau, Vincent: ASD1-TuA-3, 7
 Ju, Zheng: ASD-TuP-43, **8**
 Junige, Marcel: TUT1-15, **3**

— K —

Kanyandwke, Joël: TUT1-11, **3**
 Karimi, Amin: ASD1-TuM-4, 6
 Karppinen, Maarit: ASD2-TuM-13, 6
 Kassner, Lysann: ASD2-MoA-12, 5
 Kawano, Yumiko: ASD2-MoA-16, 5
 Kaye, Andrew: ASD2-MoA-15, **5**
 Kessels, Wilhelmus: ASD1-MoA-6, 5
 Ketkar, Eeshan: ASD-TuP-33, **8**
 Kim, Gaeul: ASD-TuP-11, 8
 Kim, Jin-Sik: ASD-TuP-9, 8
 Kim, Jiyeon: ASD2-TuA-14, 7; ASD2-TuM-15, 6
 Kim, Myeong Ho: ASD-TuP-9, 8
 Kim, Woo Hee: ASD2-MoM-10, **4**
 Kinnunen, Jussi: ASD2-MoA-12, 5
 Kisslinger, Kim: ASD2-TuM-14, 6
 Kolln, Anna: ASD2-MoM-15, **4**
 Kumar Mandal, Akhilesh: ASD2-MoM-13, 4
 Kumar, Pawan: ASD2-TuM-12, 6

— L —

Lamann, Karsten: ASD2-MoA-12, 5
 Lasonen, Valtteri: ASD1-TuM-3, **6**
 Law, Stephanie: ASD-TuP-21, 8

Lee, Han-Bo-Ram: ASD2-TuA-12, 7
 Lee, Jeong-Min: ASD2-MoM-14, **4**
 Lee, Rinus: ASD1-MoA-7, 5
 Lee, Seungwoo: ASD-TuP-11, **8**
 Lee, Won Il: ASD-TuP-23, 8
 Lei, Xinjian: ASD2-MoA-15, 5
 Lespiaux, Justine: TUT1-11, 3
 Leusink, Gert: ASD1-MoA-7, 5
 Li, Huamin: ASD-TuP-39, 8
 Lim, Yujin: ASD-TuP-9, **8**
 Liu, Eric: TUT1-5, **3**
 Liu, Haonan: ASD1-MoA-3, **5**
 Liu, Mingzhao: ASD-TuP-23, 8
 Liyana Pathiranage, Piyumi: ASD1-TuM-3, 6

— M —

Mackus, Adriaan: ASD1-MoA-6, 5
 Mackus, Adriaan J.M.: ASD2-MoA-14, 5
 Mayersky, Joshua: ASD1-MoM-6, 4
 McLean, Alastair: ASD1-MoM-5, 4
 Melix, Patrick: ASD2-TuA-16, 7
 Mentel, Kamila: ASD2-TuM-13, 6
 Merx, Marc: ASD1-MoA-6, 5
 Merx, Marc J. M.: ASD2-MoA-14, 5
 Meyer, Jörg: ASD-TuP-29, 8
 Mohimi, Elham: ASD1-MoA-4, 5
 Momose, Takeshi: ASD2-MoM-12, 4
 Morin, Pierre: ASD2-TuM-12, 6
 Muhammad, Asif: ASD1-TuM-4, 6
 Mukhopadhyay, Partha: ASD-TuP-17, **8**
 Mullins, Rita: ASD1-TuM-5, 6
 Muntada, Olga: ASD-TuP-35, 8
 Murakami, Hiroki: ASD1-MoA-3, 5
 Murata, Hayato: ASD2-MoM-12, **4**

— N —

Nagai, Souga: ASD-TuP-19, 8
 Nam, Chang-Yong: ASD2-TuM-14, 6; ASD-TuP-23, 8
 Nanan, Dana: ASD-TuP-1, 8
 Neurock, Matthew: ASD1-MoM-5, 4
 Newman, Danny: ASD1-MoA-7, 5
 Nguyen, Chi Thang: ASD-TuP-31, **8**
 Nguyen, Van Long: ASD1-MoA-7, **5**
 Ni, Zeyuan: ASD2-MoA-16, 5
 Niles, Niles: ASD1-TuA-5, **7**
 Nishida, Akihiro: ASD2-TuM-16, 6
 Nishinobo, Takumi: ASD1-MoM-6, 4
 Nolan, Michael: ASD1-TuM-5, 6
 Novoselic, Enzo: ASD-TuP-7, **8**
 Novotny, Zbynek: ASD-TuP-47, 8
 Noy, Ricard: ASD-TuP-35, 8
 Nye de Castro, Rachel: ASD1-MoA-4, **5**; ASD2-MoA-12, 5
 Nyns, Laura: ASD1-MoA-5, 5

— O —

Oh, Hwan: ASD2-TuM-14, **6**; ASD-TuP-23, 8
 Okoshi, Ken: ASD1-MoA-3, 5
 Olsson, Emilia: ASD-TuP-29, 8
 Otsuki, Yuji: ASD1-MoM-6, 4

— P —

Parala, Harish: ASD2-TuM-15, 6; ASD-TuP-31, 8
 Park, Jeong Hyun: ASD1-TuM-6, 6
 Park, Suji: ASD2-TuM-14, 6
 Parsons, Gregory: ASD1-MoA-5, 5; ASD1-TuA-4, 7
 Pattanaik, Gyana: ASD1-MoM-6, 4
 Pearlstein, Ronald: ASD2-MoA-15, 5
 Pekkanen, Joona: ASD2-TuM-13, 6
 Perez-Murano, Francesc: ASD-TuP-35, 8
 Pettersson, Mika: ASD2-TuM-13, 6
 Pham, Giang Hoang: ASD-TuP-1, **8**
 Picuntureo, Matias: ASD2-MoA-14, 5

Author Index

Pieck, Fabian: ASD-TuP-5, **8**
 Pimenta Barros, Patricia: TUT1-1, **3**
 Preischel, Florian: ASD2-TuM-15, **6**

— Q —

Quick, Tim: ASD1-MoA-1, **5**

— R —

Ragogna, Paul: ASD-TuP-1, **8**
 Rath, Jatin Kumar: ASD1-TuA-5, **7**
 Ritala, Mikko: ASD1-TuM-3, **6**; ASD-TuP-27, **8**
 Romo Negreira, Ainhoa: ASD2-MoM-13, **4**
 Roozeboom, Fred: ASD1-TuM-4, **6**
 Roy, Somnath Chanda: ASD1-TuA-5, **7**

— S —

Safavi, Hesamedin: ASD1-TuM-4, **6**
 Sandhu, Gurtej: ASD1-MoA-1, **5**
 Sandoval, Tania: ASD1-MoA-6, **5**
 Sandoval, Tania E.: ASD2-MoA-14, **5**
 Santorelli, Martial: ASD1-TuM-1, **6**
 Sathoud, Ornella: ASD1-MoA-7, **5**
 Sato, Noboru: ASD2-TuA-15, **7**; ASD-TuP-19, **8**
 Sengupta, Bratin: ASD-TuP-31, **8**
 Sharma, Intu: ASD1-TuM-4, **6**
 Shibutani, Yuki: ASD-TuP-25, **8**
 Shimizu, Hideharu: ASD2-MoM-12, **4**
 Shimogaki, Yukihiko: ASD2-TuA-15, **7**; ASD-TuP-19, **8**
 Sinha, Jyoti: ASD1-MoA-5, **5**
 Strandwitz, Nicholas: ASD2-MoM-16, **4**
 Sultana, Kishwar: ASD1-TuM-4, **6**
 Sundqvist, Jonas: ASD1-TuM-4, **6**
 Sushko, Maria: ASD-TuP-47, **8**
 Suyatin, Dmitry: ASD1-TuM-4, **6**

Suzuki, Hidenao: ASD1-MoM-6, **4**
 Swarup, Jay: ASD1-MoM-7, **4**
 Swerts, Johan: ASD1-MoA-5, **5**

— T —

Takahashi, Takuya: ASD2-TuM-16, **6**
 Tamaoki, Naoki: ASD2-TuA-15, **7**; ASD-TuP-19, **8**
 Tanaka, Koichi: ASD-TuP-33, **8**
 Tapily, Kandabara: ASD1-MoA-7, **5**
 Thelven, Jeremy: ASD1-TuA-4, **7**
 Thiemann, Franz: ASD2-TuA-16, **7**
 Tokranova, Natalya: ASD-TuP-7, **8**
 Tonegawa, Yamato: ASD1-MoA-3, **5**; ASD1-TuA-6, **7**
 Tong, Xiao: ASD-TuP-23, **8**
 Tonner-Zech, Ralf: ASD2-TuA-16, **7**; ASD-TuP-5, **8**
 Torbati, Mostafa: ASD1-TuM-4, **6**
 Trice, Ryan: ASD-TuP-21, **8**
 Tsukune, Atsuhiko: ASD2-TuA-15, **7**; ASD-TuP-19, **8**
 Tumino, Francesco: ASD1-MoM-5, **4**; ASD2-TuA-16, **7**

— V —

Vallee, Christophe: ASD1-MoA-7, **5**
 Vallée, Christophe: ASD1-TuM-1, **6**; ASD-TuP-7, **8**
 van de Poll, Mike: ASD1-MoA-6, **5**
 van der Veen, Marleen: ASD1-MoA-5, **5**; ASD2-MoM-13, **4**
 Vehkamäki, Marko: ASD1-TuM-3, **6**
 Veid, Fabian: ASD1-TuM-4, **6**

Veillerot, Marc: ASD1-TuA-3, **7**
 Verdin, Joris: ASD2-MoM-13, **4**

— W —

Wada, Yoshifumi: ASD2-MoM-12, **4**
 Wajda, Cory: ASD1-MoA-7, **5**; ASD1-MoM-6, **4**
 Wang, Shengzhuo: ASD1-MoM-5, **4**
 Wang, Yu-Han: ASD2-TuM-13, **6**
 Wellmann, Philipp: ASD2-TuA-13, **7**
 Werner, Thomas: ASD2-MoA-12, **5**
 Wong, Zeng Rong: ASD1-MoM-5, **4**
 Wu, Qin: ASD2-TuM-14, **6**

— Y —

Yamaguchi, Jun: ASD2-TuA-15, **7**; ASD-TuP-19, **8**
 Yamashita, Atsushi: ASD2-TuM-16, **6**
 Yang, Chris: ASD1-TuA-1, **7**
 Yao, Fei: ASD-TuP-39, **8**
 Yonezawa, Ryota: ASD1-MoM-6, **4**
 Yoo, Soomin: ASD-TuP-11, **8**; ASD-TuP-13, **8**; ASD-TuP-3, **8**
 Yoon, Seoeun: ASD-TuP-13, **8**; ASD-TuP-3, **8**
 Yoshino, Tomoharu: ASD2-TuM-16, **6**
 Youn, Woonkyu: ASD1-TuA-4, **7**
 Young, Katherine: ASD1-TuA-1, **7**
 Yu, Kai-Hung: ASD1-MoM-6, **4**
 Yu, Pengmei: ASD1-MoA-6, **5**

— Z —

Zhao, Rong: ASD-TuP-37, **8**
 Zhou, Yang: ASD-TuP-45, **8**
 Zopé, Bhushan: ASD2-MoA-15, **5**