

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	
SuE		Welcome Reception 5:30-7:30 pm	
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 Al₂O₃	
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 Kanyandwawe, 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 You	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	
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	Area Selective Deposition Session ASD2-MoM ASD and Inhibitors II Moderators: Sang Hoon Ahn , Samsung Electronics, Seán Barry , Carleton University, Canada
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 , <i>Tim Quick, Erik Byers, Gurtej Sandhu</i> , 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 , <i>Ken Okoshi, Hiroki Murakami, Yamato Tonegawa</i> , Tokyo Electron Technology Solutions Limited, Japan	
2:15pm	ASD1-MoA-4 Selective Deposition of HfO ₂ Films, Rachel Nye de Castro , <i>Francisco Freire-Fernandez, Elham Mohimi</i> , 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; <i>Jyoti Sinha</i> , KU Leuven and imec, Belgium; <i>Marleen van der Veen, Laura Nyns, Johan Swerts</i> , imec, Belgium; <i>Nicholas M. Carroll, Gregory Parsons</i> ,	
2:45pm	ASD1-MoA-6 Area-Selective Atomic Layer Deposition Using Small Molecule Inhibitors in High Aspect Ratios Structures, Olaf Bolkenbaas (Student) , <i>Mike van de Poll, Pengmei Yu, Marc Merckx, Wilhelmus Kessels</i> , Eindhoven University of Technology, The Netherlands; <i>Tania Sandoval</i> , Universidad Técnica Federico Santa María, Chile; <i>Adriaan Mackus</i> , 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 , <i>Christophe Vallee</i> , University at Albany-SUNY; <i>Ornella Sathoud, Jonathan Abreu, Rinus Lee, Danny Newman, Cory Wajda, Kandabara Tapily, Gert Leusink</i> , TEL Technology Center, America, LLC, USA	
3:15pm	BREAK	
3:45pm	INVITED: ASD2-MoA-10 Development of Area-Selective ALD Processes Using In Situ Optical Diagnostics, Sumit Agarwal , Colorado School of Mines, USA	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
4:15pm	ASD2-MoA-12 Characterization of Thin and Selective Film Depositions on v-Groove ASD Test Structures, Thomas Werner , Chipmetrics Oy, Germany; <i>Jussi Kinnunen, Feng Gao</i> , Chipmetrics Oy, Finland; <i>Rachel Nye de Castro</i> , Lam Research; <i>Karsten Lamann</i> , Tascon GmbH, Germany; <i>Lysann Kassner, Mathias Franz</i> , 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; <i>Marc J. M. Merckx</i> , Eindhoven University of Technology, Netherlands; <i>Christopher Jezewski, Scott B. Clendinning</i> , Intel Corporation; <i>Adriaan J.M. Mackus</i> , Eindhoven University of Technology, Netherlands; <i>Tania E. Sandoval</i> , 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; <i>Bhushan Zopé</i> , Intermolecular, Inc.; <i>Xinjian Lei, Ronald Pearlstein, Haripin Chandra</i> , EMD Electronics; <i>Sumit Agarwal</i> , 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 , <i>Zeyuan Ni, Yumiko Kawano, Shinichi Ike, Shuji Azumo, Tetsuya Goto</i> , 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, Valteri 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 NH ₃ Plasma-based AS-ALD, <i>Yoenu 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), 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), 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	
3:45pm	INVITED: ASD2-TuA-10 ALD Precursor Design Through Atomic-Level Simulation, <i>Yusuke Asano</i> , Matlantis corporation, Japan	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
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), 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 Triazolylidene 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**, **Catheleen 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)**, **Seo-eun 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 NbO₂ 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**, **Seo-eun 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, **Yukihiko 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 Lacoconi, 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: *“Semiconductor Equipment and Process Twins”*

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

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