DPS2024 Timetable (tentative)

November 14 (Thu)

Time	November 14 (Thu)	Session
8:50	Registration	
9:00		
9:10		
9:20		
9:30		
9:40	Opening Remark / Award Ceremony	
9:50		
10:00		
10:10	Nishizawa Award Lecture Steven M. George (University of Colorado) "New Mechanisms for Metal Thermal Atomic Layer Etching" Tetsuya Tatsumi (Sony Semiconductor Solutions Corporation) "Quantitative control of plasma and surface reaction in dielectric film etching"	
10:20		
10:30		
10:40		
10:50		
11:00		
11:10	Break 20min	
11:20		
11:30	A-1 <Invited>	**Session A** AS1. Breakthrough process technology for advanced logic device fabrication
11:40		
11:50		
12:00		
12:10	A-2 <Invited> Ilgyo Koo (imec) "Breakthrough process technology for advanced logic device fabrication"	
12:20		
12:30		
12:40		
12:50	Lunch Break 12:50 - 14:10 (80min)	
13:00		
13:10		
13:20		
13:30		
13:40		
13:50		
14:00		
14:10	<Keynote Presentation> Atsuyoshi Koike (Rapidus Corporation) "Rapidus's Challenge Towards Mass Production of 2nm Logic Semiconductors - Aiming for a Greener Manufacturing Process -"	**Keynote Presentation**
14:20		
14:30		
14:40		
14:50	B-1 Yudai Mashiko (Hitachi Ltd.) "Reduction in Local Etching Amount Variation for Etch Back Process of TiN Deep Trench"	**Session B** Etching Technologies(1)
15:00		
15:10	B-2 Taiga Kasai (Hitachi Ltd.) "Plasma treatment using BCl3 pulsed plasma for roughness reduction of metal oxide resist"	
15:20		
15:30	Break 20min	
15:40		
15:50	C-1 <Invited> Christophe Vallee (University at Albany) "Engineering plasma for atomic scale processing: ALD, ALE and ASD"	**Session C** AS2. Atomic layer processes (ALE/ALD/ASD) for ultimate control of surface reaction(1)
16:00		
16:10		
16:20		
16:30	C-2 Soken Obara (The Univ. of Tokyo) "Molybdenum Atomic Layer Deposition Process Development for Next Generation ULSI Devices"	
16:40		
16:50	C-3 Takashi Hamano (Sony Semiconductor Solutions Corp.) "Strategy for optimizing film properties in 3D structures during SiO_2-PEALD process"	
17:00		
17:10	Break 10min	
17:20	C-4 Liugang Hu (Nagoya Univ.) "Plasma-enhanced atomic layer deposition of carbon films"	
17:30		
17:40	C-5 Naoki Tamaoki (The Univ. of Tokyo) "In-situ observation on the initial growth stage of Co-ALD by optical reflectance monitoring"	
17:50		
18:00	C-6 Jun Yamaguchi (The Univ. of Tokyo) "Area-selective ALD of cobalt combining HMDS inhibitor and ALE nuclei removal"	
18:10		
18:20		
18:30		
18:40		
18:50		
19:00	Banquet	
19:10		
19:20		
19:30		
19:40		
19:50		
20:00		
20:10		
20:20		
20:30		
20:40		
20:50		
21:00		

November 15 (Fri)

Time	November 15 (Fri)	Session
8:50	Registration	
9:00		
9:10		
9:20	D-1 Masanaga Fukasawa (AIST) "High selective atomic layer etching in combination with area-selective deposition for atomic-scale process design"	**Session D** AS2. Atomic layer processes (ALE/ALD/ASD) for ultimate control of surface reaction(2)
9:30		
9:40	D-2 Ali Mohamed Ali (imec) "Isotropic atomic layer etching of nickel using N_2:H_2 plasma and Hhfac"	
9:50		
10:00	E-1 Takahiro Goya (Kyoto Univ.) "Electrical and mechanical property changes of Si-rich SiN films due to plasma exposure: Experimental and first-principles calculation study"	**Session E** Surface Reaction and Damage
10:10		
10:20	E-2 Shunya Kuronuma (Kyoto Univ.) "Characterization scheme for plasma-induced damage analysis of dielectric films with pre-existing defects"	
10:30		
10:40	Poster (120min)	
10:50		
11:00		
11:10		
11:20		
11:30		
11:40		
11:50		
12:00		
12:10		
12:20		
12:30		
12:40	Lunch Break 12:40 - 13:40 (60min)	
12:50		
13:00		
13:10		
13:20		
13:30		
13:40	F-1 <Invited> Julian Schulze (Ruhr University Bochum) "Knowledge based plasma control concepts for etching"	**Session F** AS3. Understanding the mechanisms for future high-aspect-ratio etching technology
13:50		
14:00		
14:10		
14:20	F-2 <Invited> Kukhan Yoon (Samsung Electronics Co., Ltd.) "Challenges and Solutions for Fine Pitch High Aspect Ratio Contact Patterning in Sub 10nm DRAM"	
14:30		
14:40		
14:50		
15:00	Break 20min	
15:10		
15:20	G-1 Yuta Manabe (KIOXIA Corp.) "Mitigation of twisting in low-temperature high-aspect-ratio etching using feature profile simulation"	**Session G** Computational Approaches
15:30		
15:40	G-2 Hojun Kang (Osaka Univ.) "Computational study of High-Aspect-Ratio etching of SiO_2 by CF_3^+ and WF_5^+ ions"	
15:50		
16:00	H-1 Shunya Kawamura (Nagoya Univ.) "Energy-resolved measurement of ion angular distribution in dual-frequency capacitively-coupled Ar plasma incident on an RF electrode"	**Session H** Plasma Diagnostics and Monitoring Systems
16:10		
16:20	I-1 Suzuka Okamoto (Daikin Industries, Ltd) "Development of Low-GWP Gases for TSV Process Using Digital Twin"	**Session I** Dry process for Green Transformation:GX
16:30		
16:40	I-2 Ah Hyun Park (The Univ. of Myongji) "PECVD Chamber Cleaning with COF_2 for Alleviating Concerns on Global Warming Product"	
16:50		
17:00	Break 10min	
17:10	J-1 Makoto Sekine (Nagoya Univ.) "Cryogenic plasma etching of SiN films with HF-contained (CF_4/H_2, HF, HF/Ar) gas mixtures"	**Session J** Etching Technologies(2)
17:20		
17:30	J-2 Chih-Yu Ma (Nagoya Univ.) "Cryogenic plasma etching of SiO_2 and Si using PF_3/H_2 precursors with different hydrogen concentrations"	
17:40		
17:50	K-1 Dussart Remi (GREMI - Universite d'Orleans - CNRS) "Cryogenic etching of SiO_xF_y and SiO_2 in SF_6/H_2 plasma"	**Session K** New Dry Process Concepts
18:00		
18:10	K-2 Thomas Tillocher (GREMI - Universite d'Orleans - CNRS) "Enhanced physisorption of CF radicals on Si surfaces cooled at cryogenic temperature and application to deep etching"	
18:20		
18:30	Closing Remarks	
18:40		
18:50		
19:00		
19:10		
19:20		
19:30		
19:40		
19:50		
20:00		
20:10		
20:20		
20:30		
20:40		
20:50		
21:00		