DPS2022 Timetable

On demand broadcasting only

Keynote Lecture

will be available only archive for streaming (not downloadable) in Participant Portal for about a week before and after the symposium from 17 Nov. to 2 Dec.

Mukta Ghate Farooq (IBM Research) "Heterogeneous Integration for AI Architectures"

Seung Wook Yoon (Samsung Electronics Co., Ltd.) "Advanced Package FAB Solutions(APFS) for Chiplet Integration"

EST	MST	PST	GMT	CET	JST/KST	Nov.24 (Thur)	
18:30	16:30	15:30	23:30	0:30	8:30		
18:40	16:40	15:40	23:40	0:40	8:40		
18:50	16:50	15:50	23:50	0:50	8:50	Opening Remark (M. Matsui, T. Shirafuji, Y.Morikawa)	
19:00	17:00	16:00	0:00	1:00	9:00		
19:10	17:10	16:10	0:10	1:10	9:10	A-1 <Invited> Zoltan Donko (Wigner Research Center for Physics) "Charged particle dynamics in capacitively coupled radiofrequency discharges driven by complex waveforms"	**Session A** Arranged Session 1 "Challenges to limits for high aspect ratio etching"
19:20	17:20	16:20	0:20	1:20	9:20		
19:30	17:30	16:30	0:30	1:30	9:30		
19:40	17:40	16:40	0:40	1:40	9:40		
19:50	17:50	16:50	0:50	1:50	9:50	A-2 <Invited> Meihua Shen (Lam Research Corporation) "Challenges and Opportunities in High Aspect Ratio Patterning for Memory Devices"	
20:00	18:00	17:00	1:00	2:00	10:00		
20:10	18:10	17:10	1:10	2:10	10:10		
20:20	18:20	17:20	1:20	2:20	10:20		
20:30	18:30	17:30	1:30	2:30	10:30	Break (& Free discussion) **20min**	
20:40	18:40	17:40	1:40	2:40	10:40		
20:50	18:50	17:50	1:50	2:50	10:50	A-3 Ryo Igosawa (Tokyo Electron Miyagi Ltd.) "High-Fidelity Digital Twinning of High-Aspect-Ratio Amorphous Carbon Layer Etching"	
21:00	19:00	18:00	2:00	3:00	11:00		
21:10	19:10	18:10	2:10	3:10	11:10	A-4 Ho Gon Kim (Sungkyunkwan Univ.) "Effect of Bias Pulsed VHF Plasma for Gap-Filling of Silicon Dioxide in High Aspect Ratio Structures"	
21:20	19:20	18:20	2:20	3:20	11:20		
21:30	19:30	18:30	2:30	3:30	11:30	A-5 Shuichi Kuboi (Nagoya Univ.) "Time-resolved measurement of Ionic composition change in Pulse-modulated $Ar/C_4F_8/O_2$ DF-CCP"	
21:40	19:40	18:40	2:40	3:40	11:40		
21:50	19:50	18:50	2:50	3:50	11:50	A-6 Akiko Kawamoto (Kioxia Corp.) "Phenomenological modeling for predicting $C_xH_yF_z^+$ ion etching yields of SiO_2 and SiNx substrate"	
22:00	20:00	19:00	3:00	4:00	12:00		
22:10	20:10	19:10	3:10	4:10	12:10	Lunch Break (& Free discussion) **80min**	
22:20	20:20	19:20	3:20	4:20	12:20		
22:30	20:30	19:30	3:30	4:30	12:30		
22:40	20:40	19:40	3:40	4:40	12:40		
22:50	20:50	19:50	3:50	4:50	12:50		
23:00	21:00	20:00	4:00	5:00	13:00		
23:10	21:10	20:10	4:10	5:10	13:10		
23:20	21:20	20:20	4:20	5:20	13:20		
23:30	21:30	20:30	4:30	5:30	13:30	B-1 <Invited> Stacey F. Bent (Stanford University) "Area Selective Atomic Layer Deposition for Advanced Device Processing"	**Session B** Arranged session 2 "Novel control of surface reaction in atomic layer processes (ALE / ALD / Area selective ALD)"
23:40	21:40	20:40	4:40	5:40	13:40		
23:50	21:50	20:50	4:50	5:50	13:50		
0:00	22:00	21:00	5:00	6:00	14:00		
0:10	22:10	21:10	5:10	6:10	14:10	B-2 Takashi Hattori (Hitachi, Ltd.) "Gas-phase etching of SiO_2 using HF and alcohol"	
0:20	22:20	21:20	5:20	6:20	14:20		
0:30	22:30	21:30	5:30	6:30	14:30	B-3 Kiyohiko Sato (Hitachi High-Tech Corp.) "Highly conformal SiOx film processed in low temperature for mask protection using ECR etcher"	
0:40	22:40	21:40	5:40	6:40	14:40		
0:50	22:50	21:50	5:50	6:50	14:50	Break (& Free discussion) **20min**	
1:00	23:00	22:00	6:00	7:00	15:00		
1:10	23:10	22:10	6:10	7:10	15:10	C-1 Hyun-Sik Hwang (Samsung Electronics Co., Ltd.) "Extreme Edge Active Process Control and Assessment on its Influence on Process Change using Equivalent Circuit Analysis and Etch Rate Measurement"	**Session C** Etching Technologies & Deposition Technologies (CVD / PVD)
1:20	23:20	22:20	6:20	7:20	15:20		
1:30	23:30	22:30	6:30	7:30	15:30	C-2 Junghwan Um (Yonsei Univ.) "A study on dielectric material etching in cryogenic process using atomistic simulation"	
1:40	23:40	22:40	6:40	7:40	15:40		
1:50	23:50	22:50	6:50	7:50	15:50	C-3 Takashi Hamano (Kyoto Univ.) "Characterization of nano-network structure transition of boron nitride films by ion irradiation during the film growth"	
2:00	0:00	23:00	7:00	8:00	16:00		
2:10	0:10	23:10	7:10	8:10	16:10	C-4 Hu Li (Tokyo Electron Technology Solutions Ltd.) "Computational and Experimental Analysis of TEOS-based Plasma to Understand SiO_2 PECVD Mechanisms"	
2:20	0:20	23:20	7:20	8:20	16:20		
2:30	0:30	23:30	7:30	8:30	16:30	Break (& Free discussion) **20min**	
2:40	0:40	23:40	7:40	8:40	16:40		
2:50	0:50	23:50	7:50	8:50	16:50	Award Ceremony (M.Matsui, T. Shirafuji)	
3:00	1:00	0:00	8:00	9:00	17:00		
3:10	1:10	0:10	8:10	9:10	17:10	Nishizawa Award Lecture Geun Young Yeom (Sungkyunkwan University)	
3:20	1:20	0:20	8:20	9:20	17:20		
3:30	1:30	0:30	8:30	9:30	17:30		
3:40	1:40	0:40	8:40	9:40	17:40	Break (& Free discussion) **60min**	
3:50	1:50	0:50	8:50	9:50	17:50		
4:00	2:00	1:00	9:00	10:00	18:00		
4:10	2:10	1:10	9:10	10:10	18:10		
4:20	2:20	1:20	9:20	10:20	18:20		
4:30	2:30	1:30	9:30	10:30	18:30		
4:40	2:40	1:40	9:40	10:40	18:40	**On-line only** Poster Sessions Part 1 Q&A **80min** Core-time 18:40 -20:00 ‡ Even number	
4:50	2:50	1:50	9:50	10:50	18:50		
5:00	3:00	2:00	10:00	11:00	19:00		
5:10	3:10	2:10	10:10	11:10	19:10		
5:20	3:20	2:20	10:20	11:20	19:20		
5:30	3:30	2:30	10:30	11:30	19:30		
5:40	3:40	2:40	10:40	11:40	19:40		
5:50	3:50	2:50	10:50	11:50	19:50		
6:00	4:00	3:00	11:00	12:00	20:00		

GMT	JST/KST	Nov.25(Fri)	
23:30	8:30	**On-line only** Poster Sessions Part 2 Q&A **80min** Core-time 8:30 -9:50 † Odd number & Authors Interview from Keynote Lecture	
23:40	8:40		
23:50	8:50		
0:00	9:00		
0:10	9:10		
0:20	9:20		
0:30	9:30		
0:40	9:40		
0:50	9:50	Break (& Free discussion) **60min**	
1:00	10:00		
1:10	10:10		
1:20	10:20		
1:30	10:30		
1:40	10:40		
1:50	10:50	D-1 <Invited> Shyam Sridhar (Tokyo Electron America) "Breakthrough technologies for opening process windows for sub-nanoscale precision etch"	**Session D** Arranged session 2 "Novel control of surface reaction in atomic layer processes (ALE / ALD / Area selective ALD)"
2:00	11:00		
2:10	11:10		
2:20	11:20		
2:30	11:30	D-2 Pilbum Kim (Samsung Electronics Co., Ltd.) "Real-Time monitoring of atomic layer etching in Cl_2/Ar and HBr/Ar pulsed gas, pulsed power plasmas by optical emission spectroscopy"	
2:40	11:40		
2:50	11:50	D-3 Akiko Hirata (Sony Semiconductor Solutions Corp.) "Surface reaction of high-throughput SiN ALE and its ion-induced damage generation mechanisms"	
3:00	12:00		
3:10	12:10	Lunch Break (& Free discussion) **80min**	
3:20	12:20		
3:30	12:30		
3:40	12:40		
3:50	12:50		
4:00	13:00		
4:10	13:10		
4:20	13:20		
4:30	13:30	E-1 Keita Ichikawa (Nagoya Univ.) "Imaging measurement of angular distribution of high-speed particles from a dual-frequency capacitively-coupled plasma incident on an RF electrode"	**Session E** Plasma Diagnostics and Monitoring Systems & Computational Approaches (Modeling, Simulation, Machine Learning, AI, Informatics, DX) for Dry Process
4:40	13:40		
4:50	13:50	E-2 Junki Morozumi (Kyoto Univ.) "In-situ electrical monitoring of SiO_2/Si structures in low-temperature plasma using impedance spectroscopy"	
5:00	14:00		
5:10	14:10	E-3 Takashi Dobashi (Hitachi High-Tech America) "Comparison of different two types of datasets for machine- learning-based optimization in plasma etching"	
5:20	14:20		
5:30	14:30	E-4 Nobuyuki Kuboi (Sony Semiconductor Solutions Corp.) "Modeling and simulation of coverage and film property in deposition process on large-scale pattern using statistical ensemble method"	
5:40	14:40		
5:50	14:50	Break (& Free discussion) **20min**	
6:00	15:00		
6:10	15:10	F-1 Masaya Imai (Hitachi Ltd.) "Density Functional Theory Study of Ruthenium Etching Using O_2/Cl_2 Plasma"	**Session F** Surface Reaction and Damage & Computational Approaches (Modeling, Simulation, Machine Learning, AI, Informatics, DX) for Dry Process
6:20	15:20		
6:30	15:30	F-2 Takahiro Goya (Kyoto Univ.) "Characterization methods of plasma process-induced damage to InP structures"	
6:40	15:40		
6:50	15:50	F-3 Tomoko Ito (Osaka Univ.) "SiO_2 etching reactions by high-energy WF_x^+ (X= 1-4) ion injection "	
7:00	16:00		
7:10	16:10	F-4 Alexey Milenin (IMEC) "Dynamic Time Warping for Time Series Data Analysis of STI Etching"	
7:20	16:20		
7:30	16:30	Break (& Free discussion) **20min**	
7:40	16:40		
7:50	16:50	G-1 <Invited> Kathy Yan (TSMC) "3DFabric™ Advanced Packaging Integration Challenges for HPC"	**Session G** Arranged Session 3 "3D-IC packaging for energy-saving and high-density interconnection"
8:00	17:00		
8:10	17:10	G-2 <Invited> Sitaram Arkalgud (TEL Technology Center America) "Hybrid Bonding: Advanced Packaging for Today and the Future"	
8:20	17:20		
8:30	17:30	G-3 <Invited> Clinton Goh (Applied Materials, Inc.) "Plasma Processing for Next Generation Packaging System Scaling"	
8:40	17:40		
8:50	17:50	Closing Remark (T. Ohba, D. Ogawa)	
9:00	18:00		
9:10	18:10	Free Discussion **20min**	
9:20	18:20		
9:30	18:30		
9:40	18:40		
9:50	18:50		
10:00	19:00		
10:10	19:10		
10:20	19:20		
10:30	19:30		
10:40	19:40		
10:50	19:50		
11:00	20:00		