

International Conference on Planarization/CMP Technology

ICPT 2026

October 19-22, 2026

Science and Technology Convention Center,
Seoul, South Korea

Advance Program
(as of September 3, 2026)

Organized by



ICPT 2026**October 19-22, 2026**Science and Technology Convention Center,
Seoul, South Korea**October 19 (Mon.), 2026****[Tutorials]**

09:15-17:55

International Conference Hall (B1F)

08:30–09:15	Registration	
09:15–09:20	Opening Remarks (Tutorial Chair: Kangchun Lee)	
Session 1: The “M” in CMP: Mechanical Aspects of Planarization (Session Chair: Kangchun Lee)		
09:20–10:20	Fundamentals of CMP Mechanics	Hyunseop Lee (Dong-A Univ., Korea)
10:20–11:20	Introduction to CMP Equipment	Sukbae Joo (Applied Materials, Korea)
11:20–12:20	Fundamentals of Pads	Sanha Kim (KAIST, Korea)
12:20–13:30	Lunch	
Session 2: The “C” in CMP: Chemical Aspects of Planarization (Session Chair: Sanha Kim)		
13:30–14:30	Fundamentals of CMP Abrasives	Kangchun Lee (Kwangwoon Univ., Korea)
14:30–15:30	Fundamentals of CMP Chemistry	Jihoon Seo (Hanyang Univ., Korea)
15:30–15:50	Coffee Break	
Session 3: Beyond the “C” & “M”: Cleaning and Process Control (Session Chair: Jihoon Seo)		
15:50–16:50	Fundamentals of Post-CMP Cleaning	Taegon Kim (Hanyang Univ., Korea)
16:50–17:50	AI-assisted CMP: A Case-based Introduction	Hanchul Cho (KITECH, Korea)
17:50–17:55	Closing Remarks (Tutorial Chair: Kangchun Lee)	

October 20 (Tue.), 2026

[Keynote Speech 1]

09:25-09:55

International Conference Hall (B1F)

● Session Chair: Sanha Kim (KAIST, Korea)

09:25-09:55 **HBM-HBF Memory Architecture and Interconnection Innovations for Next Generation Agentic AI with Token Economics**

Joungho Kim (KAIST, Korea)

[Oral 01] CMP for Advanced Interconnects (I)

09:55-11:20

International Conference Hall (B1F)

● Session Chair: Patrick Ong (imec, Belgium)

09:55-10:20 **[Invited] CMP Process Innovations, Growing Needs and Challenges Imposed by New Architectures, New Materials and Dimensional Scaling for Logic and Advanced Interconnects**

[Oral 01-1]

Nancy Heylen (imec, Belgium)

10:20-10:40 **Research on CMP Slurry for Removal Rate and Defect Control for Sub-10nm Node Semiconductors**

[Oral 01-2]

Jong-Young Cho (SK hynix Inc., Korea), Deok-Su Han (YCCChem Co., Ltd., Korea), Woojoo Kim (SK hynix Inc., Korea), and Hyun-goo Kang (SK hynix Inc., Korea)

10:40-11:00 **Advanced Tungsten Slurry with Low Etching Rate, High W / Oxide Selectivity, and E-O-E Free Topography**

[Oral 01-3]

Sanghwan Kim, Guo Yi (Qnity Electronics, Inc., USA), Joseph Sung, and Allison Hsu (Qnity Electronics, Inc., Taiwan)

11:00-11:20 **Innovative Solution for High Throughput Density Tungsten CMP Through In-situ Conditioning Development**

[Oral 01-4]

Zhengqiu Sun, Wern Jun Mak (Micron SemiAsiaOP Pte Ltd, Singapore), and Arvin Chang (Micron Memory Taiwan Co., Taiwan)

October 20 (Tue.), 2026

[Oral 02] CMP for Advanced Interconnects (II)

11:35-12:55

International Conference Hall (B1F)

● Session Chair: Rob Rhoades (Kothar Technologies, USA)

11:35-11:55

[Oral 02-1]

[Advanced Logic Dummy Gate Planarization Challenges](#)

Catarina Regra da Silva, Bart Kenens, and Kevin Vandersmissen (imec, Belgium)

11:55-12:15

[Oral 02-2]

[Development of ILD CMP for Enhanced Fence Removal Efficiency](#)

Jihyun An (Samsung Electronics Co., Ltd., Korea) and Kihoon Jang (Samsung Electronics Co., Ltd., Korea)

12:15-12:35

★[Oral 02-3]

[STI CMP with Mesoporous Nano Ceria Particles](#)

Linyi Shen, Boao Ma, Wenlong Tang, Wei Yuan, Fan Zhang, and Xin-Ping Qu (Fudan Univ., China)

12:35-12:55

[Oral 02-4]

[Slurry Activation with Megasonics in Barrier CMP](#)

H. Hiyama, A. Manzonie, J.C. Yang, T. Kajikawa, M. Rahman (Ebara Corp., Japan), A. Philipossian, Y. Sampurno (Araca, Inc., USA), C. J. Keating, and J. J. Keleher (Lewis Univ., USA)

October 20 (Tue.), 2026

[Oral 03] CMP for Advanced Packaging/3D Integration (I)

14:20-15:20

International Conference Hall (B1F)

● Session Chair: Bradley Wood (SPS International, USA)

14:20-14:40 [Panel-Level CMP Integration for Cu RDLs in Fine-Pitch Fan-Out Panel-Level](#)
[Oral 03-1] [Packaging](#)

Eungchul Kim, Suhyeon Jeon (Samsung Electronics Co., Ltd, Korea), Yuya Otsuka, Takehiro Yamazaki, Shinya Watanabe (DSRJ, Japan), Yongrae Kim, Dongjoon Oh, Juil Choi, and Minwoo Rhee (Samsung Electronics Co., Ltd, Korea)

14:40-15:00 [Process Optimization of Bulk Si Thinning for Advanced Logic Architecture](#)
[Oral 03-2]

Lea Di Donato, Bart Kenens, and Kevin Vandersmissen (imec, Belgium)

15:00-15:20 [Sub-10nm Cu/SiO₂ Dishing Control for 3D Heterogeneous Integration](#)
★[Oral 03-3]

Jinhyoung Lee, Junmin Ahn, and Taesung Kim (Sungkyunkwan Univ., Korea)

October 20 (Tue.), 2026

[Oral 04] Metrology & Inspection / Equipment / Process Diagnostics

15:35-16:35

International Conference Hall (B1F)

● Session Chair: Catharina Rudolph Fraunhofer (IZM-ASSID, Germany)

15:35-15:55

[Oral 04-1]

[Robust CMP Topography Extraction via Adaptive Polynomial Selection](#)

[Viorel Balan](#), [Yorrick Exbrayat](#) (Univ. Grenoble Alpes, France), and [Sebastien Mermoz](#) (STMicroelectronics, France)

15:55-16:15

[Oral 04-2]

[Surface-Enhanced Particle Sizing and Raman Fingerprinting for Nanoscale Abrasive and Residue Detection in Critical CMP Processes](#)

[Harvey Tang](#) and [Ali Altun](#) (UNISERS AG, Switzerland)

16:15-16:35

[Oral 04-3]

[Exploratory Data Analysis of Oscillatory Torque-Related Features in CMP Sensor Logs Associated with Slurry Formulation](#)

[Kohei Noda](#) and [Hisashi Shinomura](#) (JSR Corp., Japan)

October 20 (Tue.), 2026

[Oral 05] AI & ML for CMP / Process Control

16:55-17:55

International Conference Hall (B1F)

● Session Chair: Chao-Cheng Arthur Chen (NTUST, Taiwan)

16:55-17:15 [AI-Enabled CMP Process Optimization in Advanced Semiconductor](#)
[Oral 05-1] [Manufacturing](#)

Cheng Zhongyao (Inst. for Infocomm Research (I2R), Singapore), Su Myat Noe, Leong Lup San, Chen Gim Guan (Inst. for Microelectronics (IME), Singapore), Qian Peisheng, Ata Kircali Sezin, Gopinathan Arjunan, [Ashish James](#) (Inst. for Infocomm Research (I2R),

17:15-17:35 [Digital-Twin-Based Evaluation of Virtual Metrology Outputs for APC Decision](#)
[Oral 05-2] [Quality in CMP](#)

[Seungchoun Choi](#), Yonghwan Yim, and Semyeong Oh (Amously Inc., Korea)

17:35-17:55 [Accelerating CMP Model Development Using Machine Learning for Early](#)
[Oral 05-3] [Manufacturability Risk Detection](#)

Ushasree Katakamsetty (Globalfoundries Singapore Pte. Ltd., Singapore), Henning Turnow, Boris Vasilev (Globalfoundries Dresden, Germany), and Stefan Nikolaev Voykov (Globalfoundries, Bulgaria), [Ruben Ghulghazaryan](#) (Siemens Industry Software, Armenia), Dav

October 21 (Wed.), 2026

[Keynote Speech 2]

09:15-09:45

International Conference Hall (B1F)

● Session Chair: Tae-Gon Kim (Hanyang Univ., Korea)

09:15-09:45 **Memory Subsystems for AI: Bridging Performance and Energy from Cloud to Edge**

Dongkyun Kim (SK hynix, Korea)

[Oral 06] CMP for Advanced Packaging / 3D Integration (II)

09:45-11:10

International Conference Hall (B1F)

● Session Chair: Takashi Watanabe (KIOXIA Corp., Japan)

09:45-10:10 **[Invited] Considerations for Implementing CMP in Panel-Level Packaging**
[Oral 06-1]

Haedo Jeong, Heondeok Seo, Minjong Yuh, and Eunho Lee (G&P Tech., Korea)

10:10-10:30 **Die-to-Wafer CMP: Overcoming Millimetric Planarization Challenges Driven by Die Density**
[Oral 06-2]

Julian Sturm (Univ. Grenoble Alpes, France), Valentin Callier (EBARA Precision Machinery Europe GmbH – Branch Office France, France), Clément Castan (Univ. Grenoble Alpes, France), Lucie Safourcade (EBARA Precision Machinery Europe GmbH – Branch Office Fr

10:30-10:50 **Effect of Slurry pH and Chelating Agent on Surface Roughness and Removal Rate of AlN in SiO₂ Slurry CMP**
[Oral 06-3]

Bo-Hyeok Cho, Jae-Ik Lee, Seung-Mahn Lee, and Jae-Dong Lee (KCTech, Korea)

10:50-11:10 **Polishing Material Impact on Silicon Wafer Processing**
[Oral 06-4]

Hui Wang (Zhonghuan Advanced Company, China)

October 21 (Wed.), 2026

[Oral 07] Post-CMP Cleaning / Defect Engineering

11:25-12:50

International Conference Hall (B1F)

● Session Chair: Jingoo Park (Hanyang Univ., Korea)

11:25-11:50 **[Invited]** Qnity Cu PCMP Technology Evolution from Mature to Advanced

[Oral 07-1] [Node](#)

[Ping Hsu](#) (Qnity, Taiwan)

11:50-12:10 [Comparative Evaluation of Ammonium- and QAC-Based Alkaline Cleaning](#)

★[Oral 07-2] [Chemistries for Molybdenum Post-CMP Cleaning](#)

[Gyeongwon Lee](#), Palwasha Jalalzai (Hanyang Univ., Korea), Junsang Lee, Gayoung Kim, In-Kwon Kim, Sangkyun Kim (Samsung Electronics Co., Ltd., Korea), Tae-Gon Kim, Jihoon Seo, and Jin-Goo Park (Hanyang Univ., Korea)

12:10-12:30 [Additive-Free Post-CMP Cleaning for Fine Ceria Particle Removal with Gas-](#)

★[Oral 07-3] [Dissolved Water](#)

[Hyeonjeong Lee](#), Donghwan Choi, Jinhyoung Lee, Yechan Kim, and Taesung Kim (Sungkyunkwan Univ., Korea)

12:30-12:50 [Effect of pH on Acoustic Bubble Dynamics, Particle Removal Efficiency, and](#)

★[Oral 07-4] [Pattern Damage During Megasonic Cleaning](#)

[Mir Jalal Khan](#) (Hanyang Univ., Korea), Yunhee Cho, Wonseob Cho (BASF, Korea), Andreas Klipp (BASF SE, Germany), Jihoon Seo, and Jin-Goo Park (Hanyang Univ., Korea)

October 21 (Wed.), 2026

[Oral 08] CMP Consumables (I)

15:10-16:35

International Conference Hall (B1F)

● Session Chair: Xinping Qu (Fudan Univ., China)

15:10-15:35 **[Invited]** Advanced Ceria Slurries for SiO₂ CMP: Polishing Mechanism of
[Oral 08-1] Nanoceria and Emerging Applications

Hisataka Minami (Resonac Corp., Japan)

15:35-15:55
★[Oral 08-2] W CMP Oxidants for Ultra-low Chemical Dissolution with High Removal Rate

Yearin Byun, Thanh Cuong Nguyen, Inkwon Kim, Heechul Moon, and
Sangkyun Kim (Samsung Electronics Co., Ltd., Korea)

15:55-16:15 Advanced Soft Pad Conditioning Solutions for Improved Pad Life and
[Oral 08-3] Defectivity in Cu Barrier Applications

Uma Rames Krishna Lagudu, Chikai Chiu, Prasoon Gupta, Jiadi Fan (3M, USA),
Holden Lee, Chung I Ho, Jason Lin, Yuhsun Wang (3M, Taiwan), Changwan
Bea, Yoonghee Na (3M, Korea), Inki Kim (3M, USA), Benson Chen (3M,
Taiwan), and Yongsuk Yang (3M, Korea)

16:15-16:35
[Oral 08-4] CMP Process and Slurries for Memory Device Stacking

Yuchun Wang (Anji Microelectronics, China)

October 21 (Wed.), 2026

[Oral 09] Sustainable CMP / Manufacturing Readiness

16:50-17:55

International Conference Hall (B1F)

● Session Chair: Knut Gottfried (Fraunhofer ENAS, Germany)

16:50-17:15

[Oral 09-1]

[Invited] CMP Challenges and Opportunities for 3D Silicon Photonics

Aurore Durel (STMicroelectronics, France) and Catherine Euvrard (CEA- LETI, France)

17:15-17:35

[Oral 09-2]

CMP as a Key Enabling Process Step for SiGe BiCMOS, Silicon Photonics, and Quantum Technologies

Marco Lisker, Awwal Adeniyi Adesunkanmi, and Andreas Krüger (IHP GmbH - Leibniz Inst. for High Performance Microelectronics, Germany)

17:35-17:55

★[Oral 09-3]

Recyclability of Cu/Ta Barrier Slurry via Ultrafiltration

Max Constantin Klotzsche, Conrad Guhl (Fraunhofer IPMS, Germany), and Frank Babick (Technische Univ. Dresden, Germany)

October 22 (Thu.), 2026

[Keynote Speech 3]

09:15-09:45

International Conference Hall (B1F)

● Session Chair: Taesung Kim (Sungkyunkwan Univ., Korea)

09:15-09:45 **CMP at the Inflection Point: Enabling Sub-2nm and Beyond**

Hoyoung Kim (Samsung Electronics Co., Ltd., Korea)

[Oral 10] CMP Fundamentals

09:45-11:10

International Conference Hall (B1F)

● Session Chair: Xinchun Lu (Tsinghua Univ., China)

09:45-10:10 **[Invited] Research on Atomic-scale Tribochemistry Underlying Wafer-Scale
[Oral 10-1] Global Planarization of Advanced Integrated Circuits**

Lifei Zhang, Xinchun Lu (Tsinghua Univ., China), Knut Christoph Gottfried, and
Jinji Luo-Hofmann (Fraunhofer Inst. for Electronic Nano Systems ENAS,
Germany)

10:10-10:30 **Clarification of Polishing Mechanism Focusing on Abrasive Particle Behavior
★[Oral 10-2] in CMP - Relationship between Abrasive Particle Behavior and Pad Surface
Topography in Micro Replicated CMP Pad -**

Haruto Kurokawa, Yoji Oyama, Syuhei Kurokawa, Terutake Hayashi, Keisuke
Osawa (Kyushu Univ., Japan), Hirokuni Hiyama, Yutaka Wada, Naoyuki Handa,
and Syuntaro Hayashi (Ebara Corp., Japan)

10:30-10:50 **Micro-Structured Pads for High-MRR and Low-Damage Oxide Chemical
★[Oral 10-3] Mechanical Polishing**

Seounghee Yun, Hyun Jun Ryu, Hyeongmin Je, and Sanha Kim (KAIST, Korea)

10:50-11:10 **Physics-Informed Friction Coefficient Distribution Modeling for Material
★[Oral 10-4] Removal Rate Prediction in Chemical Mechanical Polishing**

Sho Hirono (Kobe Univ., Japan), Chihiro Mitani (Chuo Univ., Japan), Takumi
Sato, Kodai Hirano (Ebara Corp., Japan), and Norikazu Suzuki (Kobe Univ.,
Japan)

October 22 (Thu.), 2026

[Oral 11] CMP Consumables (II)

11:25-12:45

International Conference Hall (B1F)

● Session Chair: Andy Tuan (Linx Consulting Inc., Taiwan)

11:25-11:45

[Oral 11-1]

[The Interconnect Advantage: CMP Powering AI and HBM](#)

Ping Tzeng, Jingzhi Chen (Merck, Taiwan), and Hongjun Zhou (The Electronics Business of Merck KGaA, Germany)

11:45-12:05

[Oral 11-2]

[Study on the Mechanism of unCMP Caused by Plastic Deformation of the Head Membrane in CMP Equipment and Its Improvement](#)

KyongKyu Myong, Jubong Lee, Younggeun Lee, Yoo-Yong Lee, Ki Ho Bae, and Hoyoung Kim (Samsung Electronics Co., Ltd., Korea)

12:05-12:25

★[Oral 11-3]

[Identifying the Origin of Small Particle Defects in Oxide Chemical Mechanical Planarization](#)

Seungmoon Choi, Hyeonjeong Lee, Hyunho Kim, Junil Cho, and Taesung Kim (Sungkyunkwan Univ., Korea)

12:25-12:45

[Oral 11-4]

[New Particle and Chemistry Technology for Metals IC CMP Slurries](#)

Yu Yu Chou, Howl Hsu (Entegris Co., Ltd., Taiwan), Brian Reiss, and Na Zhang (Entegris Inc., USA)

October 21 (Wed.), 2026

Poster Session

13:00-15:10

Gallery (1F)

■ 01. Advanced Interconnect CMP (Metal)

- ★[P-001] [Achieving High-Selectivity Tungsten Planarization at Neutral pH via Poly-L-Lysine Inhibition](#)

[Hyunho Kim](#), Chaerin Park, and Taesung Kim (Sungkyunkwan Univ., Korea)

- [P-002] [Copper CMP Slurry Tailored for Applications with Different Dimensions](#)

[Ping Tzeng](#), [Jingzhi Chen](#) (Merck Performance Materials Ltd. - Hsinchu Site, Taiwan), and [Hongjun Zhou](#) (Merck KGaA, Germany)

- [P-003] [New Ceria CMP Slurry Designs for High Throughput Selective Metal TSV Applications](#)

[Wei Hisn \(Howl\) Hsu](#), [Chien-Liang \(Mason\) Liu](#), and [Long Dai Lu](#) (Entegris, Inc., Taiwan)

- ★[P-004] [Synergistic Effect of 1,2,4-Triazole and Polymers on Copper Chemical Mechanical Polishing](#)

[Jiaxin Zheng](#), [Yongshun Zhang](#), [Yuting Wei](#), [Liao Zhou](#), [Qiuyu Li](#), [Hui Li](#) (Southwest Jiaotong Univ., China), [Liang Jiang](#) (Southwest Jiaotong Univ. & Yanghua Zhizao (Sichuan) Innovation Technologies Co., Ltd., China), and [Linmao Qian](#) (Southwest Jiaotong Univ., China)

- [P-005] [Multiple Synergistic Effects of a Novel PVP-Optimized Slurry System in Mediating Atomic-Scale Synchronous Polishing of Cobalt Interconnection Heterostructures](#)

[Zixin Gao](#) (Hwatsing Tech. Co., Ltd., China), [LIFEI Zhang](#), [Xinchun Lu](#), and [Jialei](#)

Zhang (Tsinghua Univ., China)

■ 02. Dielectric & Hard materials CMP

[P-006] [Effect of Ceria Residue on STI Polishing](#)

Ying-Chieh Chao, Toshio Shinoda, Takahiro Umeda, and Yasuto Ishida (Fujimi Taiwan Ltd., Taiwan)

[P-007] [Precise Calculation Method for Oxide CMP APC Pressure Tuning](#)

Qidong Zhang, Hung-Chieh Chao, Chang Hung, Kung, and Kaiqiang Wang (Sien Integrated Circuit Co., Ltd., China)

★[P-008] [Selectivity Enhancement Mechanism in STI CMP Using Ceria Abrasives](#)

Chaerin Park, Jeongbin Kim, and Taesung Kim (Sungkyunkwan Univ., Korea)

[P-009] [Next Generation HORS Slurry Development](#)

Yang-Yao Lee and Ming-Che Ho (Vibrantz Technologies, USA)

[P-010] [Acceleration of GaN CMP Rate via Ion Implantation](#)

Akira Sada, Sota Ueda, Yuya Uchida, Takeshi Matsumoto (Nissin Ion Equipment Co., Ltd., Japan), and Keisuke Suzuki (Kyushu Inst. of Tech., Japan)

★[P-011] [High-Efficiency Chemical Mechanical Polishing of Polycrystalline Diamond Substrates](#)

Yibo Zhou (Ludong Univ., China), Guanghong Luo (Ludong Univ. & Yantai Xianhua Polymer Materials Co., Ltd., China), and Tao Wang (Shenzhen Polytechnic Univ., China)

★[P-012] [Selective Adsorption of an Imidazole Polymer for Oxide-Stop Nitride CMP](#)

Donggeun Park, Ilhwa Hong, Ganghyeok Kim, Youngmin Kim, Gimok Lee, and Kangchun Lee (Kwangwoon Univ., Korea)

[P-013] [Evaluation and Optimization of CMP Processes for Different GaN Applications](#)

Ahiliya Sen, Patrick Ong, Md Arif Khan, Edoardo Brezza, and Karen Geens
(imec, Belgium)

[P-014] [Surface Processing of Thin Diamond Samples](#)

Robert Rhoades (Kothar Technologies, USA), and John Ciraldo (WD Advanced
Materials, USA)

■ 03. Advanced Packaging / 3D Integration CMP (Hybrid Cu Bonding, BSPDN, Wafer
Thinning)

★[P-015] [Minimizing Selectivity of Cu/SiCN Using Micro-Replicated Pad for Hybrid
Bonding CMP](#)

Ziyang Wang, Yin hao An, Janghyun Kim (Sungkyunkwan Univ., Korea),
Yongsuk Yang, Changwan Bae (3M Korea, Korea), and Taesung Kim
(Sungkyunkwan Univ., Korea)

[P-016] [Asymmetrical Surface Characterization of Bulk Si Post Extreme Thinning for
Advanced 3D Integration Applications](#)

Zouhair Ameghnas and Jakob Visker (imec, Belgium)

★[P-017] [Investigation of Low Selectivity between Amorphous Carbon and Silicon
Nitride of Application in 3D NAND Flash CMP](#)

Janghyun Kim, Ziyang Wang, and Taesung Kim (Sungkyunkwan Univ., Korea)

[P-018] [CMOS-Compatible Gold-Free Tungsten Gate Integration for Graphene THz
Plasmonics on Silicon](#)

Marco Lisker, Ketan Anand, Dirk Hagen, Awwal Adeniyi Adesunkanmi,
Andreas Krüger (IHP GmbH - Leibniz Inst. for High Performance
Microelectronics, Germany), and Andreas Mai (IHP GmbH - Leibniz Inst. for
High Performance Microelectronics & Technical Univ. of Applied Sciences
Wildau, Germany)

[P-019] [Selectivity Control in IC Slurry Design for Advanced Packaging](#)

[Francis Acquaye](#), Sudeep Kuttiatoor, Jay Chang, and Alex Hains (Entegris, Inc., USA)

★[P-020] [Study on the Effect of Fe-Based Fenton Reaction on Amorphous Carbon Removal in CMP](#)

[Yinhao An](#), Ziyang Wang, and Taesung Kim (Sungkyunkwan Univ., Korea)

★[P-021] [Effect of Grain Size on Cu CMP-Induced Surface Evolution for Controlled Low-Temperature Hybrid Bonding](#)

[Donghwan Choi](#), Hyeonjeong Lee, Hyunkyu Kim (Sungkyunkwan Univ., Korea), Sungho Park, Yunhee Cho (BASF Company Ltd., Korea), Andreas Klipps (BASF SE, Germany), and Taesung Kim (Sungkyunkwan Univ., Korea)

★[P-022] [Structural Optimization of Surface-Structured Pads for Reducing Pattern-to-Pattern Variation in Cu Dishing](#)

[Jeongseok Oh](#), Gunhoo Park, Sukkyung Kang, Dong Geun Kim, and Sanha Kim (KAIST, Korea)

[P-023] [High-Selectivity, High-Rate Polyimide CMP Assisted by Functionalized Structured Pads for Cu/Polymer Hybrid Bonding](#)

[Il Ryu Jang](#), Seounghee Yun, Jiseung Lee, Joohyun Park, Hyunwoong Baek, Sukkyung Kang, and Sanha Kim (KAIST, Korea)

★[P-024] [Diethylenetriamine-Induced Opposite Surface Responses of Cu and Borosilicate Glass for High-Selectivity TGV CMP](#)

[Hyunkyu Kim](#), Jongyeong Jeon, Janghyun Kim (Sungkyunkwan Univ., Korea), and Yoojin Son (Samsung Electronics Co., Ltd., Korea), Taesung Kim (Sungkyunkwan Univ., Korea)

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- ★[P-025] [Pressure-Driven Selectivity Inversion in Cu/SiCN CMP for Advanced Hybrid Bonding](#)

Jeongbin Kim, Chaerin Park, and Taesung Kim (Sungkyunkwan Univ., Korea)

- [P-026] [DTW CMP Process Exploration and Optimization](#)

Damien Hebras, Renan Bouis, Arnaud Cornelis, and Catherine Euvrard (Univ. Grenoble Alpes, CEA-Leti, France)

- [P-027] [Modeling of Cu Dishing based on Asperity-Level Micro-Contact Mechanics for Cu/SiO₂ Hybrid Bonding](#)

Seong Jae Kim, Yoon Sick Eom, Hyeonseo Han, Kyunghyun Kim, Jeongseok Oh, Gunhoo Park, Hyun Jun Ryu, and Sanha Kim (KAIST, Korea)

- ★[P-028] [Chemical Mechanical Polishing of Semi-Cured BCB for Cu/Polymer Hybrid Bonding with High Bonding Strength](#)

Joohyun Park, Sukkyung Kang, Il Ryu Jang, Hyunwoong Baek, Jiseung Lee, Chansu Jeon, Kyung Min Kim, and Sanha Kim (KAIST, Korea)

- ★[P-029] [Graphene-integrated Cu CMP for Cu/SiO₂ Hybrid Bonding](#)

Jumin Ahn, Jinhyoung Lee, Gunhyoung Kim, and Taesung Kim (Sungkyunkwan Univ., Korea)

- ★[P-030] [APTES-Modified SiO₂ Abrasives for Low-Defect AlN CMP](#)

Ganghyeok Kim, Donggeun Park, Ilhwa Hong, Youngmin Kim, Gimok Lee, and Kangchun Lee (Kwangwoon Univ., Korea)

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- ★[P-031] [Mechanistic Insights into Cu/borosilicate Glass CMP and Selectivity Control for through-Glass via \(TGV\)](#)

Jonyeong Jeon, Chaerin Park, Juyeol Lee, and Taesung Kim (Sungkyunkwan Univ., Korea)

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- ★[P-032] [CMP Study of Redistribution Layer \(RDL\) Using Build-Up Films \(BUF\) and Photo-Imageable Dielectrics \(PID\) for Advanced Packaging](#)

Eunok Kim, Boyeong Hwang, Jinmyeong Hwang, Jaehak Lee, Seungmahn Lee, and Jaedong Lee (KCTech, Korea)

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- ★[P-033] [pH-Controlled ZrO₂ Slurry for Chemical Mechanical Polishing of Polyimide Film](#)

Yechan Kim, Jongyeong Jeon, and Taesung Kim (Sungkyunkwan Univ., Korea)

■ 04. Post-CMP Cleaning / Defect Engineering

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- ★[P-034] [Investigation on Silica Particle Cleaning Mechanism of Surfactants for Amorphous Carbon Post-CMP Cleaning](#)

Minha Kim, Ziyang Wang, and Taesung Kim (Sungkyunkwan Univ., Korea)

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- ★[P-035] [Visualization Method of Near Surface Liquid Replacement Induced by Deformation of a PVA Brush](#)

Makoto Miwa (Shizuoka Univ., Japan), Tomoya Nishi (Ebara Corp., Japan), and Toshiyuki Sanada (Shizuoka Univ., Japan)

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- [P-036] [A Comparative Evaluation of THEMAH as a Potential Alternative to TMAH in Cu Post-CMP Cleaning Solutions](#)

Yingshi Jin, Min Wu (Huntsman Chemistry R&D Center (Shanghai) Co., Ltd., China), Minseo Chae, Palwasha Jalalzai, Jihoon Seo, and Jin-Goo Park (Hanyang Univ., Korea)

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- ★[P-037] [Chemical and Mechanical Factors Contributing to Brush Nodule Mark Formation During Post-CMP Cleaning](#)

Sumit Kumar, Jae-Hyeong Lee, Yeon-Je Gye, Tae-Gon Kim, Jihoon Seo, and Jin-Goo Park (Hanyang Univ., Korea)

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- [P-038] [A Counter-Intuitive Strategy for Defect Control in Poly-Si CMP: Eliminating Wafer Rinse to Reduce Residue Defects](#)

Yinghao Bai, Mingkang Wang, Yixian Yao, Li Chieh Hsu, Hung-Chieh Chao, and Chang Hung Kung (Sien Integrated Circuit Co., Ltd., China)

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- [P-039] [Green Chemistry For Post Cu-CMP Cleaning To Replace Hazardous Chemicals Such As TMAH and Azole Based Inhibitors](#)

Kunhee Park, Yongho Jeong, Youngtaek Hong, and Jae-Dong Lee (KCTech Material R&D Center, Korea)

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- ★[P-040] [Adsorption and Loading Mechanisms of Metal Ions on PVA Brushes during Post-CMP Cleaning: Experimental and DFT Insights](#)

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Fred Huang, Jacky Cheng, Peter Sun, and Ping Hsu (Qnity Electronics Inc., Taiwan)

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- ★[P-051] [Enhancing Cu Recess Controllability via Additive-Modulated Post-CMP Cleaning for Hybrid Copper Bonding](#)

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[Boao Ma](#), Xuhao Cao, Bowen Luo, Jin Xu, Linyi Shen (Fudan Univ., China), Lijuan Zhang (CAS, China), and Xin-Ping Qu (Fudan Univ., China)

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- ★[P-061] [Three-Dimensional Position Tracking of 100 nm Silica Nano-Particles in Shear Flow Using Evanescent and Dark-Field](#)

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[Pai-Hsiang Chao](#), [Chao-Chang A. Chen](#), and [Le Nam Quoc Huy](#) (Nat'l Taiwan Univ. of Science and Tech., Taiwan)

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Chanwoo Jeon and Sangwoo Lim (Yonsei Univ., Korea)

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