

ICPT 2023 Program Overview ver. 20231009

October 30		October 31		November 1		November 2	
		7:00	Registration	7:00	Registration	7:00	Registration
7:30 9:00	Tutorial registration	8:00	Opening remark	8:00	Next ICPT Presentation	8:00 9:55	Keynote 3 & Oral session 9
9:00 12:30	Tutorial	8:10 10:05	Keynote 1 & Oral session 1	8:10 10:05	Keynote 2 & Oral session 5	9:55 10:15	Coffee break & Exhibition
		10:05 10:25	Coffee break & Exhibition	10:05 10:25	Coffee break & Exhibition	10:15 11:40	Invited speech 6 & Oral session 10
		10:25 11:50	Invited speech 1 & Oral session 2	10:25 11:50	Invited speech 4 & Oral session 6	11:40 12:20	Student paper award & Final day lucky selection & Closing remarks
12:30 13:30	Lunch	11:50 13:05	Lunch & Exhibition	11:50 13:25	Award ceremony Lunch & Exhibition	12:20 13:20	Lunch
13:30 17:00	Tutorial	13:05 14:30	Invited speech 2 & Oral session 3	13:25 14:50	Invited speech 5 & Oral session 7	13:30 17:15	Optional social event (Excursion)
		14:30 14:50	Coffee break & Exhibition	14:50 15:05	Coffee break & Exhibition		
		14:50 16:15	Invited speech 3 & Oral session 4	15:05 16:25	Oral session 8		
17:00 19:00	Registration & Welcome reception with light meals	16:15 18:15	Poster session 1, Cheese & Wine with light meals and demonstration of Japanese sweets "Wagashi" making	16:25 16:55	Special event speech		
				16:55 18:55	Poster session 2, Demonstration of sword polishing		
				19:00 21:00	Banquet with Geisha, Sake, Sushi and Tempura		

Topic # Topics Area

- C01** FEOL CMP
- C02** BEOL CMP
- C03** Defects, reliability issues and Post CMP cleaning
- C04** CMP fundamentals, modeling and simulation
- C05** Equipment and metrology
- C06** Process control
- C07** Emerging technologies in CMP
- C08** CMP consumables
- C09** 3D ICs/TSV applications
- C10** Alternative CMP technologies
- C11** CMP for MEMS
- C12** Wafer polish such as Si, SiC, GaN and Diamond

KN: Keynote Lecture

IS: Invited Speech

O:** Oral presentation number

P:** Poster presentation number

ICPT 2023 Program (Kanazawa Tokyu Hotel) ver. 20231017

Monday October 30, 2023	
7:30	Tutorial Registration Open
9:00~17:00	Tutorial
17:00~19:00	Registration & Welcome reception with light meals

Tuesday October 31, 2023	
7:00	Conference Registration Open
8:00~8:10	Opening Remarks Prof. Syuhei Kurokawa
Keynote Lecture 1 Session Chair : Dr. Seiichi Kondo	
8:10~8:45	KN1 Challenges in Scalable Manufacturing Technology for Highly-Stacking 3D Flash Memory Hideshi Miyajima KIOXIA
Oral session 1 Session Chair : Dr. Knut Gottfried	
8:45~9:05	O01 C01 Impact of Tungsten material properties on W CMP buffing step performance Aurore Bonneville, Lionel Balme, Silvio Del Monaco, Yannick Le Fric, Alain Baron, Sébastien Petitdidier STMicroelectronics
9:05~9:25	O02 C01 STI CMP process development for monolithic CFET integration Kevin Vandersmissen, Davy Pittevels, Evi Vrancken, Jelle Vande Weeghde, Herbert Struyf, Katia Devriendt IMEC vzw
9:25~9:45	O03 C03 Observation of Nano-particle Transportability in Shear Flow on a Surface as a Rinse Cleaning by Evanescent Field Yu Arima, Hibiki Fujishima, Panart Khajornrungruang, Satomi Hamada, Tomoya Nishi, Yutaka Wada, Hirokuni Hiyama Kyushu Institute of Technology, EBARA Corporation
9:45~10:05	O04 C04 Investigation of Corrosion Inhibitors during the Cobalt Bulk CMP Process Qinhua Miao, Yaran Lv, Dingwei Liu, Jie Cheng, Shirong Ge China University of Mining & Technology-Beijing
10:05~10:25	Break & Exhibition
Oral session 2 Session Chair : Dr. Patrick Ong	
10:25~10:50 Invited	IS1 Challenges for CMP in Advanced Scaling Katia Devriendt IMEC vzw
10:50~11:10	O05 C01 ACHIEVE UNIFORM REMOVAL BY WAFER EXTREME EDGE CONTROL FOR BONDING APPLICATIONS Julian Sturm, Gaël Royere, Catherine Euvrad-Colnat, Salma Bensalem, Franck Fournel, Christophe Morales, Clement Castan, Cedric Perrot, Victor Soty, Keisuke Namiki, Osamu Nabeya, Kenrei Tei, Tomomi Ueda, Christophe Gillot CEA-Leti, EBARA Corporation
11:10~11:30	O06 C09 Optimization of Pre-Bonding Surface for Cu/SiCN Hybrid Bonding Kohei Nakayama, Kenta Hayama, Mai La Thi Ngoc, Fumihiro Inoue Yokohama National University
11:30~11:50	O07 C09 Study on CMP Process of Nanotwinned Cu microbumps in Polyimide for 3D IC Hybrid bonding Pin-Syuan He, Chun-Wei Tu, Kai-Cheng Shie, Chih Chen National Yang Ming Chiao Tung University
11:50~13:05	Lunch & Exhibition
Oral session 3 Session Chair : Dr. Robert Rhoades	
13:05~13:30 Invited	IS2 Opportunities and Challenges in DRAM CMP development Ryoichi Tanabe Micron Memory Japan
13:30~13:50	O08 C03 FAST ADAPTATION OF MACHINE LEARNING CMP SOLUTIONS TO EMERGING TECHNOLOGIES Davit Piliposyan, Ruben Ghulghazaryan, Jeff Wilson, Ushasree Katakamsetty, Sam Nakagawa, Stefan Nikolaev Voykov, Lim Kian Hong, Liew Siew Wan, Guan Xiaochong SIEMENS Industry Software, SIEMENS EDA, GLOBALFOUNDRIES
13:50~14:10	O09 C03 TOWARD MINIMIZING CERIA-RELATED DEFECTS: AN IN-DEPTH ANALYSIS OF CERIA REMOVAL MODELS AND THEIR ASSOCIATED DEFECTS DURING BRUSH SCRUBBING Van-Tuan Nguyen, James Wait, Tomoya Nishi, Satomi Hamada, Hirokuni Himaya, Jihoon Seo Clarkson University, EBARA Corporation

14:10~14:30	O10 C03	Surfactant-Mediated Non-Contact Dual Jet Cleaning for Post-CMP Wafer Surface Wafi Aziz, Takuo Sugioka, Kazuya Date, Yasushi Fujii, Takako Harigae, Mina Tsujiwaki, Jihoon Seo Clarkson University, NIPPON SHOKUBAI CO., LTD.
14:30~14:50	Break & Exhibition	
Oral session 4		Session Chair : Prof. Yasuhisa Sano
14:50~15:15 Invited	IS3	CMP considerations for Fabs of the future Gowrisankar Damarla Texas Instruments
15:15~15:35	O11 C05	Quantitative measurement of pad debris in CMP slurries with Holographic Characterization Fook Chiong Cheong, Juliana Lumer, Tiffany Markus, Laura Philips, Yongneng Wu, Nai-Chieh Huang, Max Gage, Jianshe Tang Spheryx, Inc., Applied Materials
15:35~15:55	O12 C06	THERMAL EFFECT IN OXIDE FILM CHEMICAL MECHANICAL POLISHING Pengzhan Liu, Wookyung Jeon, Jangwon Seo, Taesung Kim Sungkyunkwan University
15:55~16:15	O13 C12	Analysis of subsurface damage structures for mechanically processed GaN substrates Natsuko Omiya, Hideo Aida, Hidetoshi Takeda, Toshiro Doi Sanoh Industrial Co. Ltd. ,Nagaoka University of Technology, Doi Laboratory Inc.
16:15~18:15 (17:00~19:00)	Poster session 1, Session Chair: Prof. Norikazu Suzuki (Cheese & Wine with light meals and Demonstration of Japanese Sweets "Wagashi" making)	

Wednesday November 1, 2023		
7:00	Registration	
8:00~8:10	Next ICPT presentation	
Keynote Lecture 2		Session Chair : Dr. Yukiteru Matsui
8:10~8:45	KN2	What is CMP!?!? Isao Nambu EBARA Corporation
Oral session 5		Session Chair : Prof. Jingoo Park
8:45~9:05	O14 C08	DEVELOPMENT OF NEXT-GENERATION CMP PAD CONDITIONER FOR ADVANCED CMP TECHNOLOGY Yongsik Moon, Kyoung-Kuk Kwack, Joohan Lee, Jongkuk Park, Eunhwa Song, Youngtae Jeon, Sungyu Park, Yujeong Jin, Jongjae Lee, Jae-Ho Kim EHWA Diamond, EHWA Diamond-Japan
9:05~9:25	O15 C08	Improving Yield through Reduction of FPC with an Advanced Filtration Strategy Yu-Chieh Fu , Chloe Chen, Yi-Wei Lu Entegris Inc.
9:25~9:45	O16 C08	Influence of Pad Surface Texturing on STI Planarization Performances using Silica based Slurries Lucie Safourcade, Cécile Candegabe, Amélie Lambert, Camille Sgrillo, Aurore Bonneville, Cédric Perrot, Catherine Euvrard, Viorel Balan CEA LETI, STMicroelectronics
9:45~10:05	O17 C08	Polishing Mechanism Based on Morphological and Chemical Quantification of Pad Surface in Chemical-Mechanical Planarization Takuro Ito, Takashi Fujita, Kaito Yonemoto, Yuki Arai, Hirokuni Hiyama, Yutaka Wada, Hozumi Yasuda, Ryota Koshino Kindai University, EBARA Corporation
10:05~10:25	Break & Exhibition	
Oral session 6		Session Chair : Prof. Baoguo Zhang
10:25~10:50 Invited	IS4	Challenges of CMP for the next generation logic devices Kiho Bae Samsung Electronics
10:50~11:10	O18 C03	A predictive model for scratch defect numbers according to CMP Pads Hyeongmin Je, Dong Geun Kim, Haesung A. Lee, Sanha Kim KAIST, Samsung Electronics Co., Ltd
11:10~11:30	O19 C03	Effect of etchants and oxidizers on the Molybdenum surfaces during post-CMP cleaning process Palwasha Jalalzai, Nayoung Kang, Sumit Kumar, Tae-Gon Kim, Jin-Goo Park Hanyang University

11:30~11:50	O20 C03	Contact and non-contact PVA brush conditioning during oxide and metal post-CMP cleaning Sanjay Bisht, Maheepal Yadav, Sumit Kumar, Satomi Hamada, Tae-Gon Kim, Jin-Goo Park Hanyang University, EBARA Corporation
11:50~12:10	Award Ceremony	
12:10~13:25	Lunch & Exhibition	
Oral session 7 Session Chair : Prof. Taesung Kim		
13:25~13:50 Invited	IS5	History and Innovation of CMP Slurry Development Hitoshi Morinaga Fujimi Incorporated
13:50~14:10	O21 C04	Elementary Reaction Analysis of the Effects of Hydrogen Peroxide on Copper CMP Hitomi Takahashi, Satoyuki Nomura Hitachi, Ltd., Resonac Corporation
14:10~14:30	O22 C04	Pad Material Properties and Conditioning Response Andrew Scott Lawing Kinik North America
14:30~14:50	O23 C04	Computational Study on the Polishing Mechanism of Nano-sized CeO ₂ Abrasives in CMP Teruo Hirakawa, Fukiko Ota, Nanami Antoku, Daisuke Iikura, Akihiro Orita, Satoyuki Nomura, Yoshishige Okuno Resonac Corporation
14:50~15:05	Break & Exhibition	
Oral session 8 Session Chair : Mr. Bradley H. Wood		
15:05~15:25	O24 C07	Novel Synthesis of Spherical Nano Ceria Particle for Advanced STI CMP Slurry Development Yang-Yao Lee, Ming-Che Ho Vibrantz Technologies
15:25~15:45	O25 C07	Challenges and Solutions in Si CMP for Packaging Applications K. Mikhaylichenko, E. Lau, R. Fernando, B. Cherian, B. Brown Applied Materials
15:45~16:05	O26 C07	Core-Shell structured Fe ₃ O ₄ @SiO ₂ Nanoparticles with Superparamagnetic and Abrasive properties for Enhanced Tungsten Chemical Mechanical Planarization Ji Hun Jung, Jong Hun Kim, Ho Sung Kim, Tae Hwan Jang, Gye Seok An Kyonggi University
16:05~16:25	O27 C07	Suppression of Molybdenum dissolution rate via catalytic-oxidation in chemical mechanical planarization Kangchun Lee Kyonggi University
Special Event Speech Session Chair : Prof. Michio Uneda		
16:25~16:55	SES	Manufacturing Process and Technical Transmission of Japanese Sword, and Demonstration of Japanese Sword Polishing (The Techniques and Hearts of the Swordsmith & Sword Polisher) Ipei Kawachi (Japanese swordsmith), Tatsuya Fujishiro (Japanese sword polisher)
16:55~18:55	Poster session 2, Session Chair: Prof. Norikazu Suzuki Demonstration of sword polishing	
19:00~21:00	Banquet with Geisha, Sake, Sushi and Tempura	

Thursday November 2, 2024		
7:00	Registration	
Keynote Lecture 3 Session Chair : Prof. Norikazu Suzuki		
8:00~8:35	KN3	3D Stacking Process Technologies for Advanced CMOS Image Sensors Yoshihisa Kagawa SONY Semiconductor Solutions Corporation
Oral session 9 Session Chair : Dr. Kazumi Sugai		
8:35~8:55	O28 C09	Cu/SiCN CMP process optimization targeting sub 1 μ m pitch W2W hybrid bonding Sven Dewilde, Diana Tsvetanova, Soon Aik Chew, Joeri De Vos, Nancy Heylen, Katia Devriendt IMEC vzw
8:55~9:15	O29 C09	Cu dishing reduction on CBA (CMOS directly Bonded to Array) process for 3D flash memory Takashi Watanabe, Tomonori Kawasaki, Masayoshi Adachi, Takamitsu Hori, Masayuki Fukumoto, Yukinobu Ishiyama KIOXIA Corporation

9:15~9:35	O30 C09	CMP Technology of Filler-containing Resin for Advanced Packaging Ryo Wakabayashi, Masayuki Serikawa, Hiroyasu Sugiyama, Hitoshi Morinaga Fujimi Incorporated
9:35~9:55	O31 C04	Feature-Scale 3D CMP Modeling: Physics-Based and Machine Learning Perspectives Ruben Ghulghazaryan, Davit Piliposyan, Yorio Takada, Jeff Wilson, Tomoaki Kuramasu, Daisuke Hori Siemens Industry Software, Micron Memory Japan, SIEMENS EDA, SIEMENS EDA Japan
9:55~10:15	Break & Exhibition	
Oral session 10		Session Chair : Dr. Yohei Yamada
10:15~10:40 Invited	IS6	Industry Inflections Poised to Impact Metal CMP Brian Brown Applied Materials
10:40~11:00	O32 C03	NANO-SCALE METAL LOSS DURING CHEMICAL-MECHANICAL PLANARIZATION Wei-Tsu Tseng, Emiko Motoyama, Koichi Motoyama, Atharv Jog, Pinlei Chu, Donald Capaneri IBM Semiconductor Technology Research
11:00~11:20	O33 C03	Formulated Chemicals for Removal of Cerium Atoms in Post-CMP Clean Hiroyuki Shirae, Tomohiro Kusano, Kan Takeshita Mitsubishi Chemical Corporation
11:20~11:40	O34 C12	Megasonic Activated Slurry Chemistries for Enhanced SiC CMP Joseph T. Powell, Yasa Sampurno, Ara Philipossian, Jason J. Keleher Lewis University, Araca Inc
11:40~12:00	Student Paper Award Prof. Syuhei Kurokawa	
12:00~12:10	Final day lucky selection Dr. Seiichi Kondo	
12:10~12:20	Closing Remarks Prof. Michio Uneda	
12:20~13:20	Lunch	
13:30~17:15	Optional social event (Excursion)	

ICPT 2023 Poster Session List ver. 20231017

Poster session 1 (Tuesday October 31, 2023; 16:15~18:15)		
P1	C01	Verification of novel CMP slurry model to improve the issue of adherent defects on polycrystalline silicon film Daiki Ito, Haruka Asano, Naoyuki Ishihara, Tatsuhiko Hirano, Kazumi Sugai Fujimi Incorporated
P2	C01	Achieving Multiple Selectivity by Designed Additives in Ceria Slurry Formulation for 3D NAND Memory Technology Yang-Yao Lee, Ming-Che Ho Vibrantz Technologies
P3		
P4	C03	Effect of chelating agents on the removal of Ti ion during W post-CMP cleaning Palwasha Jalalzai, Ranjith Punathil Meethal, Tae-Gon Kim, Andreas Klipp, Jin-Goo Park Hanyang University, BASF SE
P5	C03	Effect of cobalt ion on silica loading to PVA brush during Co Post-CMP cleaning Maheepal Yadav, Sanjay Bisht, Sumit Kumar, Satomi Hamada, Tae-Gon Kim, Jin-Goo Park Hanyang University, EBARA Corporation
P6	C03	Evaluation and effective removal of organic impurity sources during the synthesis process of roller-type PVA brushes for efficient post-CMP cleaning Suprakash Samanta, Kwang-Min Han, Tae-Gon Kim, Jin-Goo Park Hanyang University
P7	C03	New Generation Post-CMP Clean Formulation for Excellent Residue Clean and Superior Metal Compatibility Jacky Cheng, Peter Sun, Wayne Lin, Wei-En Huang, Chuan-An Kao, Shelly Yang, Alan Chen, Pascal Berar, Ping Hsu DuPont Electronics & Industrial
P8	C03	Novel Spiral Layout Design Roller Sponge Fu-Qiang Zhang, Hung-Chieh Chao, Tzu-Yen Chuang, Chih-An Ku Tung An Development Ltd.
P9	C03	A novel approach for PVA brush evaluation by contact area analysis during metal and oxide post-CMP cleaning Mir Jalal Khan, Suprakash Samanta, Geurim Ha, Ji-Hoon Son, Toshiyuki Sanada, Tae-Gon Kim, Jin-Goo Park Hanyang University, KC Tech, Shizuoka University
P10	C03	Effect of Cleaning Chemicals on Defects of PVA Brush during Post-CMP Cleaning Kwang-Min Han, Suprakash Samanta, Tae-Gon Kim, Jin-Goo Park Hanyang University
P11	C03	Observation of PVA roller brush nodule deformation and liquid movement Shota Suzuki, Yuki Mizushima, Satomi Hamada, Ryota Koshino, Toshiyuki Sanada Shizuoka University, EBARA Corporation
P12	C03	Effect of cleaning efficiency of SC-1 depending on temperature and time Chulwoo Bae, Juyong Lee, Seungjun Oh, Jungjae Park, Taesung Kim Sungkyunkwan University, Horiba Stec Korea, Ltd.
P13	C03	Evaluation Method of Eluted Substance from PVA Sponge Megumi Uno, Yumiko Nakamura, Chikako Takatoh EBARA Corporation
P14	C03	High water permeability and more uniformity water flow roller sponge Wan-Ting Chang, Tsai-Hua Chiu, Fu-Qiang Zhang, Hung-Chieh Chao, Tzu-Yen Chuang, Chih-An Ku Tung An Development Ltd.
P15	C03	Investigation of Cleaning Effects of Gas Dissolved Water (GDW) for Ceria Nano Particles on the SiO ₂ and Si ₃ N ₄ Film Surfaces Kihong Park, Sanghyeon Park, Wookyung Jeon, Taesung Kim Sungkyunkwan University, 3M
P16	C03	Thermal Effect on Oxidation of Molybdenum Surface during Chemical Mechanical Planarization Process Wookyung Jeon, Sanghuck Jeon, Taesung Kim Sungkyunkwan University
P17	C03	Superior Post-CMP Cleaning Formulation for Molybdenum and Tungsten Eddie I-Chun Chang, Pei Huang, Wayne Lin, Shelly Yang, Fred Huang, Chuan-An Kao, Ping Hsu DuPont Electronics & Imaging
P18		

P19	C03	Optimization of cleaning method for PVA brushes Tomoya Nishi, Naoyuki Handa, Satomi Hamada, Hozumi Yasuda, Yutaka Wada EBARA Corporation
P20	C03	Surface and Cleanliness Treatment of PVA Brush Used for Post-CMP Process Wan-Ting Chang, Tsai-Hua Chiu, Fu-Qiang Zhang, Hung-Chieh Chao, Tzu-Yen Chuang, Chih-An Ku Tung An Development Ltd.
P21		
P22	C04	Polishing Mechanisms in CMP through Slurry Particle Behavior and Pad Surface Topography Observation Affecting Polishing Performance Syuhei Kurokawa, Toya Takahashi, Terutake Hayashi, Shuntaro Hayashi, Yutaka Wada, Hozumi Yasuda, Hirokuni Hiyama Kyushu University, EBARA Corporation
P23	C04	Simulation of CMP abrasive behavior considering pad surface topography Taku Ishihara, Akihito Hashimoto, Norikazu Suzuki, Yohei Hashimoto, Satoru Yamaki, Hozumi Yasuda, Yoshihiro Mochizuki Chuo University, Kanazawa University, EBARA Corporation
P24	C04	Development of ζ -potential simulation scheme Tsukuru Ohwaki, Kazumi Sugai Fujimi Incorporated
P25	C04	Prediction of Material Removal Rate for poly-Si CMP using Atomic Force Microscope Sanghwan Choi, Eungchul Kim, Taesung Kim Sungkyunkwan University
P26	C04	Development of a Simulation Method for Material Removal Rate Distribution Considering Slurry Polishing Ability Akira Fukuda, Hisanori Matsuo, Yoshihiro Mochizuki, Masashi Obuchi National Institute of Technology Tokuyama College, EBARA Corporation
P27	C04	Copper CMP modeling considered with temperature function for prediction of planarization time Yeongil Shin, Jongmin Jeong, Seunghun Jeong, Masashi Kabasawa, Hirokuni Hiyama, Hisanori Matsuo, Katsuhide Watanabe, Yutaka Wada, Haedo Jeong Pusan National University, EBARA Corporation
P28		
P29	C05	Development of a Wet-type Pad Contact Area Measurement Apparatus for Cu-CMP Le Nam Quoc Huy, Yueh-Hsun Tsai, Le Ngoc Quynh Hoa, Chao-Chang A. Chen National Taiwan University of Science and Technology, Nanyang Technological University
P30	C05	INLINE REFRACTIVE INDEX-BASED SLURRY DENSITY MONITORING TO OPTIMIZE RAW CMP SLURRY CONTAINER DISPERSION Carlo Aparece, Marcus Kavaljer, Pat Swayze Kinetics – Mega Fluid Systems, KXS Technologies
P31	C05	Evaluation of adhesion between wafer surface and polymer layer using in-liquid AFM Yuichi Watanabe, Shota Suzuki, Tatsuhiko Hirano, Kazumi Sugai Fujimi Incorporated
P32	C05	Application of CMP to package panel Hirotaka Satori, Ji-Chul Yang EBARA Corporation
P33	C05	A High Accurate Method for Characterizing the Particle Size Distribution of CMP Slurries Using Liquid Cell TEM Chia-Ming Yang, Po-Tsung Hsieh, In-Gann Chen National Cheng Kung University
P34	C05	Development of new polishing concept using magnet Tatsuyuki Wada, Michio Uneda, Tadakazu Miyashita, Yuko Yamamoto, Ken-ichi Ishikawa Kanazawa Institute of Technology, Fujikoshi Machinery Corp.

Poster session 2 (Wednesday November 1, 2023; 16:55~18:55)

P35	C06	ONLINE LPC MONITORING OF CERIA SLURRIES IN A SIMULATED SLURRY DISTRIBUTION LOOP Carlo Aparece, Mark Bumiller Kinetics - Mega Fluid Systems, Entegris Inc.
P36	C06	Prediction of CMP Material Removal Rate Based on XGBoost Considering Pad Degradation Jongmin Jeong, Yeongil Shin, Seonho Jeong, Masashi Kabasawa, Hirokuni Hiyama, Hisanori Matsuo, Katsuhide Watanabe, Yutaka Wada, Haedo Jeong Pusan National University, EBARA Corporation
P37	C06	Investigating the effects of slurry temperature on reducing Tungsten recess in chemical mechanical planarization Sanghuck Jeon, Xue Wensing, Wookyung Jeon, Chul Kang, Taesung Kim Sungkyunkwan University
P38	C06	Study on the Removal Rate Improvement of Cell-Peri Height Difference in DRAM ILD-CMP Process Min Jung Kim, Jae Yong Han, Dong Hyun Lim, Joon Bae Jeon Samsung Electronics
P39	C07	Prediction of Pad Lifetime for Cu-CMP via Convolutional Neural Network Seunghwan Lee, Jaewon Lee, Pengzhan Liu, Sanghyuk Jeon, Taesung Kim Sungkyunkwan University
P40	C07	Characterization of Vat Photopolymerization Additively Manufactured CMP Pads Dong Geun Kim, Sanha Kim KAIST
P41	C07	Plasma-Assisted CMP for Planarization of Adhesive Polymers in 3D Stacked Semiconductor Devices Sukkyung Kang, Juseong Park, Chan Su Jeon, Kyung Min Kim, Sanha Kim KAIST
P42	C07	Study of plasma CMP processing mechanism and path to practical application Yuto Sawayama, Chihiro Miyagawa, Masaki Wada, Toshiro Doi, Hidetoshi Takeda, Hideo Aida Nagaoka University of Technology, Fujikoshi Machinery CO. LTD, Doi Laboratory Inc.
P43	C07	Competitive edge of CMP industries in the DX/SDGs era -A Technology Management perspective- Yashuhiko Takeno, Kazuya Okamoto Yamaguchi University
P44	C07	Opening of the Backside of ICs for Failure Analysis by Using CMP Gerfried Zwicker, Christian Boit, Awwal Adesunkanmi, Norbert Herfurth Zwickerconsult, Technical University Berlin, IHP - Leibniz-Institut für innovative Mikroelektronik
P45	C08	CMP Pad Surface Conditioning Solution for Consistent CMP Masashi Norimoto, Kok Chian Loh, Jeffrey Yeh, Waldo Wang, Yi He, Vincent Laraia 3M Japan Innovation Limited, 3M Singapore Pte. LTD, 3M Taiwan LTD, 3M Company
P46	C08	Impact of water consumption on pad surface properties, case study for 3D-printed CMP polishing pads Aurore Bonneville, Hugo Perret, Lionel Balme, Valérie Dupuy, Nicolas Daventure, Sébastien Petitdidier STMicroelectronics, Applied Materials
P47	C08	Relationship between visualization of the polishing interface and removal rate in resin CMP Hiroki Matsunaga, Mizuki Hatatani, Michio Uneda, Hiroyuki Ishida, Kazutoshi Hotta, Hitoshi Morinaga Kanazawa Institute of Technology, Fujimi Incorporated
P48	C08	An Improved Large Format Conditioning Platform Jui-Lin Chou, Chih-Chung Chou, Cheng-Te Lin, Andrew Scott Lawing Kinik Company, Kinik North America
P49	C08	CMP Filter pore size coverage for abrasive size and concentration Fumiaki Hashisako, Bradley H. Wood Nihon Entegris G. K., Entegris Inc.
P50	C08	The impact of consumable properties on 3-D polishing through visualization of the polishing process Kotaro Saito, Michio Uneda, Kyoussuke Tenkou, Kazutoshi Hotta, Hitoshi Morinaga Kanazawa Institute of Technology, Fujimi Incorporated
P51		
P52	C08	Ceria-based Bulk Oxide Slurry Development Pengyu Xu, Xiaojia Xu, Yinbin Chen, Eric Wang, Yang Yang, Huiwen Wang, Rundi Cai, Tingting Niu, Changzheng Jia, Shoutian Li Anji Microelectronics Technology

P53		
P54	C08	Challenges and Solutions for High Step Height CMP Masaki Inoue, Norihito Yamaguchi Kao Corporation
P55	C08	Improvement of polishing performance of hydrogen reduced ceria slurry in STI CMP Jaewon Lee, Seunghwan Lee, Chulwoo Bae, Eungchul Kim, Taesung Kim Sungkyunkwan University, Samsung Electronics
P56	C08	Dishing Reduction Effect of Polyglycerol in Cu-CMP —Consideration of CMP Mechanism by Dynamic Electrochemical Analysis, and Proposal for New Slurry— Keiji Takashige, Masato Kashiwazaki, Kiyoshi Mori, Keisuke Suzuki, Toshiro Doi Sakamoto Yakuhin Kogyo Co., Ltd., Kyusyu Institute of Technology, Kyushu University, Doi Laboratory Inc.
P57	C08	pH Modulation in Abrasives Solutions and the Impact on System Filtration Bradley H. Wood, Adam Caridi Entegris Inc, Lewis University
P58	C09	TSV CMP Slurry Application for Hybrid Bonding Allison Yuling Hsu, Leo Huang, Robert Auger, Hua Dong, Kazuki Moriyama, Hirofumi Kashihara, Syin Hsu DuPont, NITTA DuPont Incorporated
P59	C10	Wafer surface ironing for distributed Bragg reflectors by standard CMP resources Conrad Guhl, Felix Mende, Likhith Gummadi, Felix Köhler, Marcus Wislicenus Fraunhofer Institute for Photonic Microsystems IPMS
P60	C10	Study on sonic-assisted processing method for micro pattern formation of Cu film surface Soma Yamamoto, Yuho Fukushima, Hideaki Nishizawa, Panart Khajornrungruang, Keisuke Suzuki Kyushu Institute of Technology
P61	C10	Dishing Control and Surface Properties Improvement of Nano Twinned Copper/Polyimide (Nt-Cu/PI) Patterned Wafer by Electro-Kinetic Force Assisted Chemical Mechanical Planarization (EKF-CMP) Cheng Jhong, Yueh-Hsun Tsai, Li-Shin Lu, Chih Chen, Le Nam Quoc Huy, Chao-Chang A. Chen National Taiwan University of Science and Technology, National Quemoy University, National Yang Ming Chiao Tung University
P62	C10	Mirror-finishing technology for SiC substrates using PCD tools with high-density cutting edges Haruto Konishi, Takashi Fujita, Ryota Fukunaga, Yasuo Izumi, Junji Watanabe Kindai University, Shin-Nihon Tech
P63		
P64	C12	Using Surface Photovoltage Spectroscopy for Wafer Inspection Knut Gottfried, Imme Ellebrecht, Thomas Clausen, Kay Dornich, Nadine Schüler ErzM-Technologies UG, Freiberg Instruments GmbH
P65	C12	Comparison of Polishing Surface of Alumina Slurry and Silica Slurry Shinichiro Takami, Shinya Hirano Fujimi Incorporated
P66	C12	High performance chemical mechanical polishing slurry for Gallium Nitride Junchao Huo, Weili Liu, Zhitang Song Chinese Academy of Sciences, Shanghai Xinanna Electronic Science & Technology Co. Ltd
P67		
P68		