October 21 (Wed.), 2026

Poster Session

13:00-15:10
Gallery (1F)

[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, 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)

[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)

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

Ziyang Wang, Yinhao 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)

[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/SiO_2 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/SiO_2 Hybrid Bonding

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

[P-030] APTES-Modified SiO_2 Abrasives for Low-Defect AlN CMP

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

[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)

[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)

[P-033] pH-Controlled ZrO_2 Slurry for Chemical Mechanical Polishing of Polyimide Film

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

[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)

[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)

[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)

[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)

[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)

[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)

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

Maheepal Yadav, Sanjay Bisht, Jihoon Seo, Tae-Gon Kim, and Jin-Goo Park (Hanyang Univ., Korea)

[P-041] In-Situ Electrochemical Investigation of Cu Tribocorrosion during PVA Brush Scrubbing

Sanjay Bisht, Jiho Seo, Maheepal Yadav, Hyounggeun Kang, Tae-Gon Kim, Jihoon Seo, and Jin-Goo Park (Hanyang Univ., Korea)

[P-042] Effects of Amino Acid Additives on Tungsten Surface Behavior during Post-CMP Cleaning

Changshou Jin, Geumji Back, and Taesung Kim (Sungkyunkwan Univ., Korea)

[P-043] In-situ Conditioning Optimization for Slurry Residue Contamination Control in CMP Wafer Rinse Step

Hyun-jin Jeong (Sungkyunkwan Univ. and SK hynix, Korea), Minju Lee, Kyeongtae Hong (SK hynix, Korea), and Taesung Kim (Sungkyunkwan Univ. and SAINT, Korea)

[P-044] Metal Compatible Ceria Post-CMP Cleans

Volley Wang, Fred Huang, and Ray Yang (Qnity Electronics Inc., Taiwan)

[P-045] Suppressing Particle Contamination and Mechanical Damage in CMP via Uniformly Distributed Pad Asperities

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

[P-046] Investigation of Abrasive Particle Size Effects on Mo CMP and GDWBased Cleaning Performance

Seoyul Geum, Wookyung Jeon, and Taesung Kim (Sungkyunkwan Univ., Korea)

[P-047] A Predictive AFM Adhesion Force Method for PCMP Cleaning Efficiency

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

[P-048] Investigation of Factors Affecting Brush Self-Cleaning Performance in Post-CMP Cleaning

Masamitsu Kurashita, Natsuko Urushihara (EBARA Corp., Japan), Jin-Goo Park (Hanyang Univ., Korea), and Hirokuni Hiyama (EBARA Corp., Japan)

[P-049] Electrochemical and Q-Time Integrated Methodology for Screening Cu Surface Stability in Post-CMP Cleaning

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

[P-050] Influence of Chelating Agents on Mo-Ion Mediated Silica Adhesion to PVAc Brushes during the Mo Post-CMP Cleaning Process

Minjun Son, Sumit Kumar, Soonmin Lee, Gyeongwon Lee, Tae-Gon Kim (Hanyang Univ., Korea), Junsang Lee, Gayoung Kim, In-Kwon Kim, Sangkyun Kim (Samsung Electronics Co., Ltd., Korea), Jihoon Seo, and Jin-Goo Park (Hanyang Univ., Korea)

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

Arim Woo, Jun-Hee Han, Jin-Goo Park, Jihoon Seo, and Tae-Gon Kim (Hanyang Univ., Korea)

[P-052] Ceria-Induced Particle Defects Formation and a New Post-CMP Cleaning Strategy to Improve Yield

Shu-Yi Meng, Ying-Pei Huang, Yu-Yun Cheng, Yu-Fang Yeh, Chia-Wei Wang, Wei-En Huang, and Ping Hsu (Qnity Electronics Inc., Taiwan)

[P-053] Mechanism Study of pH Shock Effect for Organometallic Residue Formation in PCMP Process

Jacky Cheng, Mi-Jen Kuo, Peter Sun, and Ping Hsu (Qnity Electronics Inc., Taiwan)

[P-054] Impact of Megasonic Conditions on Dishing Variation and Damage during Post-CMP H2-DIW Cleaning for Hybrid Copper Bonding

Jun-Hee Han, Arim Woo, Ji-An Lee, Jin-Goo Park, Jihoon Seo, and Tae-Gon Kim (Hanyang Univ., Korea)

[P-055] Cu Post CMP Cleaning Defect Control: Hillock Prevention and Surface State Control

Lily Jiang, Bing Liu, and Libbert Peng (Anji Microelectronics Co., Ltd., China)

[P-056] Effect of Post-CMP Cleaning Methods on Cu Pad Dishing and Cleaning Efficiency for Hybrid Cu Bonding

Seungjun Lee, Junhee Han, Arim Woo, Jin-Goo Park, Ji-Hoon Seo, and Tae-Gon Kim (Hanyang Univ., Korea)

[P-057] Evaluation of PVA Brush Cleaning for Improving Surface Cleanliness and Topography Uniformity of 4H-SiC Substrates

Ji-An Lee, Jun-Hee Han, Arim Woo, Ji-Hoon Seo, Jin-Goo Park, and Tae-Gon Kim (Hanyang Univ., Korea)

[P-058] Decoupling Cu Protection and Residual Adhesion of Organic Inhibitors in TMAH-Based Cu Post-CMP Cleaning

Minseo Chae, Tae-Gon Kim, Ji-hoon Seo, and Jin-Goo Park (Hanyang Univ., Korea)

[P-059] Post-CMP Cleaning of Ceria Abrasive Particles Removal from High-Quality 4H-SiC Surfaces

Jin Xu, Boao Ma, Bowen Luo, and Xin-Ping Qu (Fudan Univ., China)

[P-060] Hydrogen Nanobubble Water Assisted Post-CMP Cleaning of Mesoporous Ceria Particles on SiO_2

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

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

Shin Tanihara, Panart Khajornrungruang, Ryunosuke Yamagata (Kyushu Inst. of Tech., Japan), Natsuko Urushihara, Tomoya Nishi, and Hirokuni Hiyama (EBARA Corp., Japan)

[P-062] Semi-Automated Topography Analysis for Post-CMP Surface Planarity Assessment

Daniel Chang, Syin Hsu, Sunny Chan, and Tracy Lin (Qnity Electronics Inc., Taiwan)

[P-063] Study on AI-Assisted CMP Removal Rate Prediction Using Integrated Process Data and Cerium Carbonate-Based Slurry

Eunseo Woo, Sohee Hwang (Hannam Univ., Korea), Jaeyoung Jung (ETRI, Korea), and Woonjoong Kim (Hannam Univ., Korea)

[P-064] Performance Evaluation of Data-Driven Predictive Models for CMP Material Removal Rate

Jaewook Lee, Incheol Ha, Bobin Kang, Gwanhun Song, Gitae Park, and Hyunseop Lee (Dong-A Univ., Korea)

[P-065] Unconditional Spectral Latent Diffusion for CMP Sensor Time Series Augmentation and Material Removal Rate Prediction

Taehyun Park, Donggi Yun, Sang-Jung Ra, Hakjong Shin (ETRI, Korea), Woonjung Kim (Hannam Univ., Korea), and Jaeyoung Jung (ETRI, Korea)

[P-066] Digital-Twin-Assisted Evaluation of DOE Strategies for Zone-Wise Pressure-Removal Characterization in CMP

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

[P-067] Real-Time CMP Monitoring Using Miniaturized Eddy Current Sensors Embedded in Additively Manufactured Pad

Gunhoo Park, Dong Geun Kim, Seong Jae Kim, and Sanha Kim (KAIST, Korea)

[P-068] Inline Real-Time Monitoring of Hydrogen Peroxide Concentration in CMP Slurries Using Ultrasonic Technology for Advanced Process Control

Raymond Maas (Rhosonics Analytical B.V., The Netherlands)

[P-069] The Role of Pump Technology in Maintaining CMP Slurry Health for Advanced Node Manufacturing

Gary Van Schooneveld and Mark Litchy (CT Associates, Inc., USA)

[P-070] Challenges and Opportunities of Recycled Slurry Metrology

Rashid Mavliev (Mavlipa LLC, USA), Robert Rhoades (Kothar Tech., USA), and Knut Gottfried (ErzM-Tech., Germany)

[P-071] Estimation of Pad Uniformity by Diamond Conditioning with Overlapped Areas Method for Advanced CMP Process

Kai-Min Tian, Chao-Chang A. Chen, Wan-Hsiang Tseng (Nat'l Taiwan Univ. of Science and Tech., Taiwan), Manabu Tsujimura, Hirokuni Hiyama, and Naoyuki Handa (EBARA Corp., Japan)

[P-072] Study of 3D Pad Microstructure Models with Representative Volume Element and Micro-CT Reconstruction

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

[P-073] Precision Sintered Diamond Conditioners with Controlled Tip Coplanarity for Enhanced CMP Stability

Felix Lin, Flora Chang, Ping-He Chen, and Jeffrey Yeh (3M Company, Taiwan)

[P-074] Next Generation of Fine Particle Count (FPC) Reduction Filter

Henry (Yu-Heng) Cheng, Yuxin Li, Alan Chao, Enzo Chen, Howard Shih, Aiden Chang, Ying Qi, and Henry Wang (Entegris, Inc., Taiwan)

[P-075] Impact of Material and Structural Properties of Silica Particle on SiO_2 Removal Rate

Yuichi Watanabe, Shota Suzuki, and Tsukuru Ohwaki (Fujimi Inc., Japan)

[P-076] Research on Nano Ceria Slurry

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

[P-077] From Lab to Fab: Comparative Study of CMP Filtration Requirements in FEOL and Advanced Packaging Processes

Chloe (Ting-Chen) Chen, Alex Chuang, Mott Chien, Hager Yeh, Jason Fu, and YiWei Lu (Entegris. Ltd., Taiwan)

[P-078] Oxidation-Selective Chemically Controlled CMP Strategy for Molybdenum-Tungsten Integration in Advanced MOL Contacts

James Hsu and Joseph Sung (Qnity Electronics, Inc., Taiwan)

[P-079] Effects of Pad Thermal Properties on CMP Behavior of Molybdenum: Difference between Soft Pad and Hard Pad

Wookyung Jeon and Taesung Kim (Sungkyunkwan Univ., Korea)

[P-080] Improving Wafer Defects and Enhancing Production Efficiency through Optimized Filter Design and Application (CMP Consumable)

Jinhyuk Lim, Youna Kim, Donghyun Kim, and Jaehwan Kim (SK hynix Inc., Korea)

[P-081] Radial Mapping of CMP Pad Conditioner Performance via Optical Haze Measurement on Sacrificial Polymer Films

Ping Chuang (Nippon Alloy Co., Ltd., Taiwan)

[P-082] Design for Silicon Stop System Using Anionic Silica System

Moeka Ajiki, Sora Shirai (Fujimi Corp., Japan), Sunshine Wei (Fujimi Corp., Taiwan), Ryota Mae, Shogo Onishi, and Tatsuhiko Hirano (Fujimi Corp., Japan)

[P-083] Particle Size Dependence of CeO_2 Slurry on Oxide Chemical Mechanical Planarization Material Removal Rate

Haiying Yu, Yixian Yao, Yinghao Bai, and Chang Hung Kung (Sien Integrated Circuit Co., Ltd., China)

[P-084] Filtration Technologies and Solutions for CMP Process Optimization

Sanghyun Bae, Yunseo Jang, Jeongmok Cho, and Daniel Eumine Suk (SYNOPEX Inc., Korea)

[P-085] New Method for Slurry Filter Selection to Secure Industrial Deployment

Clément Castan, Victor Soty, Samson Toviho, Maryline Cordeau, Joseph Antoine (Univ. Grenoble Alpes, France), Paola Gonzalez Aguirre, Federico Barbieri, Günter Haas, Patrick O'Hagan (Entegris, France), Aurore Bonnevial, Silvio Del Monaco (STMicroelectronics, France), and Catherine Euvrard (Univ. Grenoble Alpes, France)

[P-086] High Removal Rate Ceria Abrasives

Manabu Yuasa, Eisaku Suda, Takao Sekimoto, Arihisa Matsumoto (Solvay Special Chem Japan, Ltd, Japan), François Gombault, and Réka Toth (Solvay - Rhodia Opérations, France)

[P-087] Structured Surface Pads for High-Efficiency STI Planarization

Youngwook Park, Yeongjeong Kang, Taekyung Lee, Doyeon Kim, and Hanchul Cho (KITECH, Korea)

[P-088] New CMP Pads for Advanced Technologies

Jae Eung Koo, Ravichandra Palaparthi, Grant Hou, and Dave Hui (Qnity Electronics Inc., USA)

[P-089] Investigation of Selective and Non-Selective Niobium CMP for Quantum Applications

Floriane Baudin, Cassandre Beluffi, Sebastien Dominguez, Richard Souil, Candice Thomas, Pablo Renaud, and Catherine Euvrard (Univ. Grenoble Alpes, France)

[P-090] Development of an Optimized Pad Conditioner Replacement Procedure for an EBARA FREX200 M2 CMP Tool

Andreas Krüger, Awwal Adeniyi Adesunkanmi, and Marco Lisker (IHP, Germany)

[P-091] Breakthrough CMP Pad Designs: New Surface Textures for Advanced IC

Rachel Ma, Jessica Lindsay, Weisi Li, Kevin P. Dockery, and Aaron Peterson (Entegris. Ltd., USA)

[P-092] Improvement of Soft Pad Conditioning by Advanced Conditioner Design – FPC (Flexible Pad Conditioner)

Changwan Bae (3M Company, Korea), Uma Rames Krishna Lagudu, Thomas Mooney (3M Company, USA), and Yongsuk Yang (3M Company, Korea)

[P-093] Effect of Ultrafine Bubbles on Polishing Pad Lifetime In Silicon CMP

Kota Takahashi (Gifu Univ. and Mitsubishi Chemical Engineering Corp., Japan) and Michio Uneda (Gifu Univ., Japan)

[P-094] Aerosol Metrology-Based Inline Evaluation of CMP Slurry Filter

Seongmin Cho (Seoul Nat'l Univ. of Science and Tech., Korea), Daniel R. Troolin, Andrea J. Tiwari (TSI Incorporated, Shoreview, USA), and Dong-Bin Kwak (Seoul Nat'l Univ. of Science and Tech., Korea)

[P-095] Study on the Synthesis of Ceria Nanoparticles for Semiconductor CMP Using a Flow Reactor System

Tao Lyu, Sohee Hwang, Sooyeon Choi, and Woonjung Kim(Hannam Univ., Korea)

[P-096] Study on Ceria Slurry Using Modified Cerium Carbonate for Semiconductor CMP process

Jaeyeong Cho, Sohee Hwang, Seyoung Ahn, and Woonjung Kim (Hannam Univ., Korea)

[P-097] Innovative Microreplicated CMP Pad with Advanced Gel Subpad Architecture for Enhanced Edge Profile and Planarization Temperature Control

Don Kim (3M Korea, Korea), Yi He, Duy K. LeHuu (3M USA, USA), YongSuk Yang, YoongHee Na, and Changwan Bae (3M Korea, Korea)

[P-098] CMP Slurry Design for Controlling Surface Profiles in Cu/SiO2 Co-CMP for Hybrid Bonding

Jihye Lim, Junhui Lee, Subin Son, and Jeong-Chul Kim (Hanbat National Univ., Korea)

[P-099] Stabilizer Ratio Dependent Surface Reaction of $Fe(NO_3)_3$ Based Tungsten CMP Slurry

Yeseung Choi, Hyunho Kim, Eun Cho, and Teasung Kim (Sungkyunkwan Univ., Korea)

[P-100] Material Paradigm Shift of Polyurethane CMP Pads: Transition from Petrochemical to Sustainable Bio- and CO_2-Based Materials

Jangwon Seo, Mingyoung Ji, Hajeong Kang, Jongwook Yoon, and Seungchul Hong (Enpulse Co., Ltd., Korea)

[P-101] Study on the Synthesis of Anionic Polymer Dispersants for Improving Colloidal Stability of Ceria CMP Slurry

Chaeyeon Kim, Sohee Hwang, Songhee Kim, and Woonjung Kim (Hannam Univ., Korea)

[P-102] Design of Cu-Silica Composite Abrasives in CMP Slurry for High-Efficiency CMP

Junhui Lee, Jihye Lim, and Jeong-Chul Kim (Hanbat Nat'l Univ., Korea)

[P-103] Structure-Based MRR Modeling and Slurry Transport in SiO_2 CMP Using Micro-Patterned Pads

Geumji Back and Taesung Kim (Sungkyunkwan Univ., Korea)

[P-104] A Reactive Pad enabling Abrasive-free CMP: A Paradigm Shift in Planarization

Matthias Stender (ChEmpower Corp., USA)

[P-105] Improving CMP Slurry Filtration Efficiency through Optimized Wetting Techniques and Hydrophilic Depth Filters

Yuya Takashima, Kentaro Fujita, and Minori Nishioka (Rokitechno Co., Ltd, Japan)

[P-106] Improving CMP Slurry Defectivity Control through Membrane-Based Filtration: A Comparison with Conventional Depth Media Filters

Majid Entezarian, John Morby, and Sandeep Singh (Thermo Fisher Scientific Inc., USA)

[P-107] Inside CMP: Material Removal Mechanisms Empowered by CMP Pad Conditioning

Yongsik Moon, Kyoung-Kuk Kwack, Joohan Lee, Jongjae Lee, Eunhwa Song, Youngtae Jeon, Johee Lee, Sungyu Park, and Yujeong Jin (EHWA Diamond, Korea)

[P-108] Low Contact Pressure CMP Using Surface-Structured Pads with Diverse 3D Asperity Architectures

JunYoung Park, Seounghee Yun, Dong Geun Kim, Sukkyung Kang, Hyogun An, and Sanha Kim (KAIST, Korea)

[P-109] Effect of Molecular Structure of Amino Acid Inhibitor on Corrosion and Polishing Behavior in W CMP

Haemin Jeong, Hyeonjeong Lee, Seungmoon Choi, and Taesung kim (Sungkyunkwan Univ., Korea)

[P-110] Development and Mechanistic Investigation of a Non-Azole Inhibitor System for Cu CMP Applications

Eunseok Lee and Sangwoo Lim (Yonsei Univ., Korea)

[P-111] Modeling and Experimental Validation of Soft Pad Surface Evolution with Optimal Pad Conditioning by Diamond Disk for Copper CMP Process

Po-Shen Chen, Chao-Chang A. Chen, Pai-Hsiang Chao, Chao-Sung Chang, WanHsiang Tseng (Nat'l Taiwan Univ. of Science and Tech., Taiwan), Jason Lin, Yi He, Kazuma Nuno, and Fay Salmon (3M, USA)

[P-112] Enabling Next-Generation CMP Performance through Ultra-Pure WaterSoluble Polymers: The Critical Role of Molecular Weight Control, Process Consistency, and Trace Metal Reduction

Eric S. Moyer (Polysciences, USA)

[P-113] Mechanism of SiO_2 Stopping in Silicon CMP Using an Inhibitor (Chem-A)

Natsuko Oshima, Kazuki Yagi, Tatsuhiko Hirano, and Kazumi Sugai (Fujimi Incorporated, Japan)

[P-114] Precision Benchtop Tribology: Achieving Wafer-Scale Uniformity for Accelerated CMP Process Development

Damien Yiyuan Khoo (Bruker (Malaysia) Sdn Bhd, Malaysia)

[P-115] Effects of Material Removal Rate on Scratch Defects in Bulk Cu CMP

Te-Chun Wang, Lin-Chen Ho, Shang-Yuan Chen, and Ivan Li (Qnity™ Electronics Inc., Taiwan)

[P-116] Full-Scale 3D CFD Simulation of Slurry Distribution at the Wafer Interface in XY-Grooved Pads

Guinea Niku, Ishii Tsubasa, and Masuya Koichi (EBARA Corp. Japan)

[P-117] Physics-Based Modeling for CMP Pad Conditioning: Technologies and Case Studies

Kazuma Nuno (3M Japan Innovation Ltd., Japan), Jiadi Fan, David Buckley, Jaimie Stomberg, Fay Salmon, Sreekanth Akarapu, Uma Rames Krishna Lagudu, Junqing Xie, Matt Fritz, Thomas Herdtle, Victor Ho, and Yi He (3M Company, USA)

[P-118] Evaluation of Protective Effects and Corrosion Risks Induced by Complex Formation on Post-Cu-CMP Surfaces

Toshiya Kon, Megumi Uno, and Yumiko Nakamura (EBARA Corp., Japan)

[P-119] Control of Edge Profile Asymmetry During CMP

Da-Shiuan Chiou (Qnity Electronics, Inc., Taiwan), Seda Aktas (Qnity Electronics, Inc., USA), Ivan Li (Qnity Electronics, Inc., Taiwan), and Ravi Palaparthi (Qnity Electronics, Inc., USA)

[P-120] Interfacial Kinetics for Development of Structure-Activity Relationships

Ali Jawaid, Jason Seabold, and Kelvin Li (Entegris, Inc., USA)

[P-121] Study on Iron (Fe)-Complex Catalyst Accompanying Passivation Layer Formation and Hydroxyl Radical Generation in Tungsten(W) Chemical Mechanical Planarization(CMP)

Eun Cho, Hyeonho Kim, Seunghwan Lee, Kyuyoung Lee, and Taesung Kim (Sungkyunkwan Univ., Korea)

[P-122] Investigation of Effect of Agent in Double-Sided Lapping Using Fixed Abrasive Pad

Keisho Morita and Yohei Hashimoto (Kanazawa Univ., Korea)

[P-123] Interfacial Kinetics of Molybdenum in Sulfuric Peroxide Mixtures: Oxidation–Inhibition–Dissolution Balance for Mo CMP Chemistry

Junil Cho, Byungsu Kim, and Taesung Kim (Sungkyunkwan Univ., Korea)

[P-124] Evaluation of Wafer-Level Uniformity and Material Removal Behavior in CMP

Wonbin Ko, Geumji Back, and Taesung Kim (Sungkyunkwan Univ., Korea)

[P-125] Investigation of Adsorption Behavior and Cu Corrosion Inhibitors Using DFT and Fukui Function Analysis

Seulki Kim (KCTech Co., Ltd., Korea), Seok Gyu Ryu (Clarkson Univ., USA), Jihoon Seo (Hanyang Univ., Korea), Kyungmin Yoo, Youngjung Kim, Myunggoo Lee, Seungmahn Lee, and Jae-Dong Lee (KCTech Co., Ltd., Korea)

[P-126] Chemical Mechanical Polishing of Glass Using Fine Bubbles as an Alternative to Solid Abrasives

Anji Tsunoda and Seiichi Suda (Shizuoka Univ., Japan)

[P-127] Controlled Wet Etching of Molybdenum Using Oxidizing Agents with Different Oxidation Behaviors

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