Presentation Number	Presenter	Title	Authors
P-A-01	Prof. An-Ni Huang	The Effects of Packing Particle Shape on the Flow Dynamics and Heat Recovery in a Packed Bed	A.N. Huang*1, I.C. Shen2, H.P. Kuo2, W.Y. Hsu3 1 National Taiwan University of Science and Technology, Taiwan 2 National Taiwan University, Taiwan 3 Chang Gung University, Taiwan
P-A-02	Mr. Fumiya Yokomori	Design of interparticle photo-cross-linkable suspension using γ-Al2O3 nanoparticles and 3D printing by stereolithography	F. Yokomori*1, J. Tatami*1, M. Iijima*1 1 Yokohama National University, Japan
P-A-03	Mr. Haruki Sakurai	Three-dimensional structuring of porous materials using interparticle photo-cross-linkable slurry and ceramic beads	Haruki Sakurai* 1, Junichi Tatami 2, Motoyuki Iijima 2 1 Graduate School of Environment and Information Sciences, Yokohama National University, Japan 2 Faculty of Environment and Information Sciences, Yokohama National University, Japan
P-A-04	Mr. Katsuya Onishi	Evaluation of Reaction Characteristics of $Ca(OH)_2$ Powder with CO_2 and HCl at High Temperature	Katsuya Onishi*, Tomonori Fukasawa, Toru Ishigami, Ayaka Tamaru, Kunihiro Fukui Hiroshima University, Japan
P-A-05	Ms. Akari Honda	Internal Structure evolution of alumina slurry during slip casting process visualized by OCT in situ observation - Effect of the amount of PVA binder -	A. Honda*1, J. Tatami 1, M. Iijima 1 1 Yokohama National University, Japan
P-A-06	Mr. Nozomu Tozawa	In-situ OCT visualization of internal structural changes during liquid phase sintering of CaSiO3-doped Al2O3 green bodies	N. Tozawa*1, J. Tatami1, M. Iijima 1 Yokohama National University, Japan
P-A-07	Ms. Reona Nomura	Effects of aerating methods and conditions on the improvement of particle flowability	R. Nomura*1, M. Yoshida1,2, Y. Shirakawa1,2 1 Graduate School of Science and Engineering, Doshisha University, Japan 2 Faculty of Science and Engineering, Doshisha University, Japan
P-A-08	Mr. Yuto Masuda	Microscale mechanical properties of sliding friction surface of α/β SiAlON composite ceramics	Yuto Masuda* 1), Junichi Tatami 1), Motoyuki Iijima 1),Tatsuki Ohji 1), Kentaro Yoshida 2), Takuma Takahashi 2), Hiromi Nakano 3) 1) Graduate School of Environment and Information Sciences, Yokohama National University, Japan 2) Kanagawa Institute of Industrial Science and Technology, Japan 3) Toyohashi University of Technology, Japan
P-A-09	Ms. Komaki Matsuura	Effect of cyclic applied stress on grain boundary strength of silicon nitride ceramics	Komaki Matsuura* 1), Junichi Tatami 1), Motoyuki Iijima 1) Tatsuki Ohji 1), Takuma Takahashi 2), Hiromi Nakano 3) 1) Yokohama National University, Japan 2) Kanagawa Institute of Industrial Science and Technology, Japan 3) Toyohashi University of Technology, Japan
P-A-10	Mr. Issei Kubota	Understanding the tablet internal structure and the capping mechanism by measuring the distribution of die wall pressure	I. Kubota*1, Y. Imayoshi1, S. Ohsaki1, H. Nakamura1, S. Watano1 1) Department of Chemical Engineering, Osaka Metropolitan University, Japan
P-A-11	Mr. Haruki Kanai	Effect of structural defects in MOFs on drug loading capacity	H. Kanai*1, S. Ohsaki1, H. Nakamura1, S. Watano1 1 Osaka Metropolitan University, Japan
P-A-12	Mr. Yugo Sato	Synthesis of high functional pesticides using biodegradable carrier particles	Yugo Sato*1, Toshiyuki Nomura1 1 Osaka Metropolitan University, Japan
P-A-13	Mr. Shunichi Ishibashi	Improving the efficiency of the bio-reduction process for recovering palladium from urban mines	Shunichi Ishibashi*1, Toshiyuki Nomura1 1 Osaka Metropolitan University, Japan
P-A-14	Mr. Takahiro Oikawa	Homogenized silicon nitride green compacts prepared by in-situ solidification of nonaqueous slurries	Takahiro Oikawa*1, Junichi Tatami2, Motoyuki Iijima2 1 Graduate School of Environment and Information Sciences, Yokohama National University, Japan 2 Faculty of Environment and Information Sciences, Yokohama National University, Japan
P-A-15	Mr. Akihito Ide	Design of interparticle photo-cross-linkable suspension for DLP-3D printing of ZrO2 ceramic components	A. Ide*1, J. Tatami1, M. Iijima1 1 Yokohama National University, Japan
P-A-16	Ms. Minami Matsuo	Synthesis of Co-Crystals via Liquid-Liquid Interfacial Crystallization and Effects of Precipitation Conditions on Polymorphism	M. Matsuo*1, M. Yoshida1, Y. Shirakawa1 1 Graduate School of Science and Engineering, Doshisha University, Japan
P-A-17	Mr. Ryota Tomiyama	Aqueous based photocurable ZrO2 suspensions for greener DLP-3D printing process	R. Tomiyama* 1, Junichi Tatami 2, Motoyuki Iijima 2 1 Graduate School of Enginnering Science, Yokohama National University, Japan 2 Faculty of Environment and Information Sciences, Yokohama National University, Japan
P-A-18	Mr. Hiromasa Kuroda	Visualization of drying behavior of aqueous silica slurries with different organic additives by operand OCT observation	Hiromasa Kuroda *1, Junichi Tatami 1, Motoyuki Iijima 1, Takuma Takahashi 2 1 Graduate School of Engineering Science and Faculty of Engineering, Yokohama National University, Japan 2 Kanagawa Institute of Industrial Science and Technology, Japan
P-A-19	Mr. Makoto Moriwaki	Analysis of the Adsorption Kinetics of Metal–Organic Frameworks Using a Quartz Crystal Microbalance	M. Moriwaki*1, H. Uematsu1, S. Hiraide1, S. Watanbe1 1 Kyoto University, Japan
P-A-20	Dr. Kenta Kitamura	Time-Dependent Changes in the Dispersion State of Aqueous Alumina Slurry and the Effect of Additive Timing	Kenta Kitamura*1, 2, Takamasa Mori 1,2 1 Department of Chemical Science and Technology, Faculty of Bioscience and Applied Chemistry, Hosei University, Japan, 2 Hosei University Research Institute for Slurry Engineering, Japan

P-A-21	Mr. Fumiya Kimura	Dewaxing behavior of ceramic compacts observed in-situ by a combined OCT-TG-FTIR-MS system	Fumiya Kimura 1), Junichi Tatami 1), Motoyuki Iijima 1) Takumi Takahashi2) 1)Yokohama National University 2)Kanagawa Institute of Industrial Science and Technology
P-A-22	Ms. Abhivyakti .	Ultra-fast tetracycline degradation utilizing ZIF-derived C, N-ZnO/Co3O4/CoFe2O4/Fe3O4 catalyst and in-silico environmental impact assessment of degradation products	Abhivyakti .*1, Sonal Singhal1 1 Panjab University, India
P-A-23	Mr. Kaito Yamada	Simulation analysis of the effects of adhesive and frictional particle interactions on slurry viscosity behaviors	Kaito Yamada*1, Mikio Yoshida1,2, Yoshiyuki Shirakawa1,2 1 Graduate School of Science and Engineering, Doshisha University, Japan 2 Faculty of Science and Engineering, Doshisha University, Japan
P-A-24	Mr. Ryo Osaki	Oxide coating of cathode active material in all-solid-state batteries using spray drying method	Ryo Osaki* 1), Shuji Ohsaki 1), Hideya Nakamura1), Satoru Watano1) 1) Department of Chemical Engineering, Osaka Metropolitan University, Japan
P-A-25	Dr. Takayoshi Kiguchi	Preparation of Poly-L-Lactic Acid Microparticles Encapsulating Drug-Containing Gel for Sustained-Release	Takayoshi Kiguchi*1, Miori Sato2, Akihiro C. Yamashita1,2 1 Faculty of Bioscience and Applied Chemistry, Hosei University, Tokyo, Japan 2 Graduate School of Science and Engineering, Hosei University, Tokyo, Japan
P-B-01	Mr. Takuto Furukawa	Dispersion of cellulose nanofibers in acrylic resin with surface modified SiO2 nanoparticles	Takuto Furukawa*1, Junichi Tatami2, Motoyuki Iijima2 1) Graduate School of Environment and Information Sciences, Yokohama National University, Japan 2) Faculty of Environment and Information Sciences, Yokohama National University, Japan
P-B-02	Ms. Nao Ozamoto	Effect of Particle Properties and Concentration on Classification Performance of Cyclone Separator	Nao Ozamoto*1, Tomoomi Segawa2, Katsunori Ishii2, Koichi Kawaguchi2, Tomonori Fukasawa1, Toru Ishigami1, Kunihiro Fukui1 1 Hiroshima University, Japan 2 MOX Fuel Cyclone Design Group, Strategy and Management Department, Japan Atomic Energy Agency
P-B-03	Mr. Haruto Ikeda	Effect of Mixing Ratio of Multivalent Cations on Shear Yield Stress of Particle Suspensions	Haruto Ikeda*, Toru Ishigami, Kunihiro Fukui, Tomonori Fukasawa Hiroshima University, Japan
P-B-04	Ms. Misato Takahashi	Drying shrinkage behavior of green bodies 3D printed using interparticle photo-cross-linkable SiO2 slurry	Misato Takahashi*1, Junichi Tatami2, Motoyuki Iijima2 1 Graduate School of Environment and Information Sciences, Yokohama National University, Japan 2 Faculty of Environment and Information Sciences, Yokohama National University, Japan
P-B-05	Dr. Kazumi Yoshiya	Exploring the optimal crushing method of iron ore －Proposal based on cross-sectional morphology and crack observation of iron ore	Kazumi Yoshiya*1, 2, Yuto Yamamoto 2, Kento Izumi 1, Yutaro Takaya1, 2, Chiharu Tokoro1, 2 1 Department of Resources and Environmental Engineering, Graduate School of Creative Science and Engineering, Waseda University, Tokyo, Japan 2 Department of Systems Innovation, Graduate School of Engineering, The University of Tokyo, Tokyo, Japan
P-B-06	Mr. Shogo Tsutaki	Design of transparent photocurable Pickering emulsion for high-resolution DLP-3D printing of porous ceramics	S. Tsutaki*1, J. Tatami2, M. Iijma2 1 Graduate School of Environment and Information Sciences, Yokohama National University, Japan 2 Faculty of Environment and Information Sciences, Yokohama National University, Japan
P-B-07	Mr. Yuki Imai	Effect of polyethyleneimine molecular weight on the flowing properties of highly concentrated SiO2/BC slurry	Yuki Imai*1, Junichi Tatami1, Motoyuki Iijima1 1 Yokohama National University, Japan
P-B-08	Mr. Yuto Yamamoto	Automation of mineral liberation measurement of iron ore by using image processing	Yuto Yamamoto*1, Kazumi Yoshiya2,1, Chiharu Tokoro2,1, Yutaro Takaya1,2 1 Graduate School of Engineering, The University of Tokyo, Japan 2 Faculty of Science and Engineering, Waseda University, Japan
P-B-09	Mr. Zehao XU	Fabrication of Er:(Y, La)2O3 ceramics with high transparency by spark plasma sintering	Zehao Xu*1,2, Hiroaki Furuse2, Tohru S. Suzuki1,2 1 Department of Nanoscience and Nanoengineering, Graduate School of Advanced Science and Engineering, Waseda University, Tokyo 169-8555, JAPAN 2 Research Center for Electronic and Optical Materials, National Institute for Materials Science (NIMS), Tsukuba, Ibaraki 305-0047, JAPAN
P-B-10	Mr. Taisei Suzuki	Green luminescence of ZnSi2O4:Mn2+ derived from precursors prepared by hydrothermal synthesis	T. Suzuki*, Y. Matsushima Yamagata University, Japan
P-B-11	Mr. Li-Heng Tai	Effects of Precursors on the Synthesis and Dielectric Properties for $(Mg_{0.2}Ni_{0.2}Zn_{0.2}Co_{0.2}Mn_{0.2})_2SiO_4$ High-Entropy Ceramics	Li-Heng Tai*, Shao-Ju Shih and Tzu-Yun Lin
P-B-12	Ms. Riko Yamazaki	Properties of Si3N4 granules fabricated by spray freeze granulation drying from non-aqueous slurries prepared by adding PEI-OA complex	Riko Yamazaki*1, Junichi Tatami*1, Motoyuki Iijima*1, Shinya Kawaguchi*2, Naoki Kondo*3 1 Yokohama National University, Japan 2 Preci Co. Ltd., Japan 3. National Institute of Advanced Industrial Science and Technology, Japan
P-B-13	Prof. Zhihao Bao	Synthesis and Properties of Doped CeO2 Nanoparticles Synthesized with FSP Process	Zhihao Bao* 1, Guoxiang Chen 1, Xueqiang Lu 1,Jianjun Shi 1 , Yongfeng Mei 1 1) Yiwu Research Institute, Fudan University, China

P-B-14	Prof. Wan-Chin Yu	Construction of NiCuAl Layered Double Hydroxide/Carbon Nanotube Composite for Electrochemical Detection of Tert-Butylhydroquinone	Wan-Chin Yu*, Cheng-En Tsai, Neethu Sebastian Department of Molecular Science and Engineering, National Taipei University of Technology, Taiwan, R.O.C.
P-B-15	Mr. Hidekazu Okaya	Influence of granulation process on optical properties of Ca-α-SiAlON:Eu2+ ceramics	H. Okaya1, J. Tatami1, M. Iijima1, T. Takahashi1,2 1 Yokohama National University, Japan 2 Kanagawa Institute of Industrial Science and Technology, Japan
P-B-16	Dr. Vaclav Pouchly	Compositionally Complex Ceramic oxides based on (MgCoCuNiZn)O and (CoCrFeNiMn)3O4: Sintering behavior, final microstructure, chemical homogeneity and their final electro-magnetic properties.	V. Pouchly* 1,2, E. Scasnovic 2, T. Spusta 2, D. Sobola 2 1 Faculty of Mechanical Engineering, Brno University of Technology, Czech Republic 2 CEITEC, Brno University of Technology, Czech Republic
P-C-01	Mr. To-Yu Wang	Scalable Inorganic Aqueous Coatings for Passive Daytime Radiative Cooling	To-Yu Wang1*, Hsin-Yu Fan1, Chao-Wei Huang1 1 National Cheng Kung University, Taiwan
P-C-02	Prof. Chin-Yi Chen	Preparation and Visible-Light-Driven Photocatalytic Degradation Properties of Heterostructured MoS_2/Bi_2WO_6/BiOBr Composite Powder	Yu-Tse Lin1, Chin-Yi Chen*1 1 Department of Materials Science and Engineering, Feng Chia University, Taiwan.
P-C-03	Mr. Shunsuke Sugimoto	Design of Zinc Battery Separator for Dendrite Suppression	S. Sugimoto*1, Y. Tsugawa1, M. Morimitsu1, M. Yoshida1, Y. Shirakawa1 1 Graduate School of Science and Engineering, Doshisha University, Japan
P-C-04	Mr. Kakeru Arai	All-solid-state Batteries Composed of Ag+ Superionic Conductor	K. Arai*, T. Shimizu, S. Wajima, Y. Matsushima Yamagata University, Japan
P-C-05	Mr. Takatoshi Kurihara	Effect of the resistance at the interface with discharge electrodes on separation of lithium-ion batteries cathode materials by direct electrical pulsed discharge method	Takatoshi Kurihara*1, Asako Narita2, Moe Nakahara1, Chiharu Tokoro2,3 1 Graduate School of Creative Science and Engineering, Waseda University, Japan 2 Faculty of Science and Engineering, Waseda University, Japan 3 Faculty of Engineering, The University of Tokyo, Japan
P-C-06	Mr. Tomoyuki Yonezawa	Dismantling of photovoltaic panels for silicon recovery using microwave heating	Tomoyuki Yonezawa*1), Akiko Kubota2), Manabu Inutsuka3), Michio Kondo4), Hidehiro Kamiya2), Chiharu Tokoro5,6) 1) School of Creative Science and Engineering, Waseda University, Japan 2) Sustainable Energy & Environmental Society Open Innovation Research Organization, Waseda University, Japan 3) Waseda Center for a Carbon Neutral Society, Waseda University, Japan 4) Research Innovation Center, Waseda University, Japan 5) Faculty of Science and Engineering, Waseda University, Japan 6) Graduate School of Engineering, The University of Tokyo, Japan
P-C-07	Dr. Mehdi Estili	Carbon nanotube–MXene membranes for electrochemical energy applications	Mehdi Estili,* Tohru S. Suzuki National Institute for Materials Science (NIMS), Tsukuba, Ibaraki, Japan
P-C-08	Ms. Wan-Yi Hsu	Experimental and Simulation Studies on Countercurrent Fluidized Bed VOC Absorber using Bead Activated Carbon as the Fluidizing Media	Wan-Yi Hsu*1, Wei-Han Jen2, Hsiu-Po Kuo2 1 Chang Gung University, Taiwan 2 National Taiwan University, Taiwan
P-D-01	Prof. Jingwen Sun	Manipulating Spin State of RuO2 for Robust Acidic Oxygen Evolution	Jingwen Sun* 1 Nanjing University of Science and Technology, China
P-D-02	Prof. Chien-Liang Lee	Specific Activities of PdAu Octahedral, Truncated Octahedral, and Cubic Nanopowders as Non-Enzymatic Glucose Sensors	Chin-Wei Wu, Ming-Hung Chiang, Chien-Liang Lee* Department of Chemical and Materials Engineering, National Kaohsiung University of Science and Technology, Kaohsiung 807, Taiwan.
P-D-03	Ms. I-Ting Kuo	Effect of Phase Transformation on Wear Resistance of Yttria-stabilized Zirconia	I-Ting Kuo*1, Wei-Hsing Tuan1 1 Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan
P-D-04	Prof. Hsiao-Hsuan Hsu	Effect of Inserting Layer on Electrical Characterization of Hafnium Aluminum Oxide Ferroelectric Memory	Jia-Hui Lin 1, Cheng-Chun Lin 1, Sheng-Hong Wang 1, Kuan-Chieh Lee1, Shu-Xuan Lin 2, Hsiao-Hsuan Hsu*1 and Chun-Hu Cheng 2 1 Institute of Materials Science and Engineering, National Taipei University of Technology, Taipei, Taiwan 2 Department of Mechatronic Engineering, National Taiwan Normal University, Taipei, Taiwan
P-D-05	Mr. Hidetomo Nishio	Fabrication of NaNbO3 ferroelectric thin films by a solution process and their photoinduced properties	H. Nishio*1, K. Sakurai1, Y. Fujii1, W. Sakamoto1 1 Chubu University, Japan
P-D-06	Mr. Keisuke Nishida	Synthesis and characterization of CeO2-HfO2 ferroelectric thin films by chemical solution deposition method	K. Nishida*1, W. Sakamoto1, K. Mimura2 1 Chubu University, Japan 2 National Institute of Advanced Industrial Science and Technology, Japan
P-D-07	Ms. Yuki Tsuchiya	Effect of ZrO2 Addition on the Properties of Reduction-Resistant (Na,Ba)(Nb,Ti)O3 Piezoelectric Ceramics	Y. Tsuchiya*1, A. Terada1, M. Fukaya1, W. Sakamoto1 1 Chubu University, Japan
P-D-08	Ms. Yu-Wen Hsiao	Aging and fatigue resistance of zirconia with low yttria addition	Yu-Wen Hsiao*1, Wei-Hsing Tuan1, Jin-Ren Chen2, Po-Liang Lai2 1 Department of Materials Science and Engineering, National Taiwan University, Taipei, Taiwan. 2 Department of Orthopedic Surgery, Bone and Joint Research Center, Chang Gung Memorial Hospital, Taiwan.
P-D-09	Mr. Eisuke Hatano	Preparation of amorphous aluminosilicates derived from rice husk charcoal for the recovery of ammonium cations from wastewater	E. Hatano*1, R. Simancas1, M. Takemura1, Y. Sasaki2, A. Chokkalingam1, S. P. Elangovan1, K. Iyoki1, T. Okubo1, T. Wakihara1,3 1 Department of Chemical System Engineering, The University of Tokyo, Japan 2 Nanostructures Research Laboratory, Japan Fine Ceramics Center, Japan 3 Institute of Engineering Innovation, The University of Tokyo, Japan

P-D-10	Ms. Jeonghyeon Lee	Evaluation of Microstructure and Properties of Thermal Barrier Coating Co-doped with Rare Earth Elements	Jeong-hyeon Lee1, Janghyeok Pyeon1, Sohee Baek1, Junhyeok Nam1, Seung-Cheol Yang2, Byung-il Yang2, Yeon-Gil Jung2 1Department of Materials Convergence and System Engineering / 2School of Materials Science and Engineering, Changwon National University, 51140, Republic of Korea
P-D-11	Mr. Nagaru Baba	Degradation evaluation of mechanical properties near single crystal 8YSZ surface heat-treated in vacuum	N. Baba*1, J. Tatami1, T. Ohji1, M. Iijima1, T. Takahashi2, H. Nakano3 1 Yokohama National University 2 Kanagawa Institute of Industrial Science and Technology 3 Toyohashi University of Technology
P-D-12	Mr. Che-Feng Hsu	SnO_2/ITO-Based Self-Powered Triboelectric Nanogenerator for Environmental and Multi-Mode Sensing Applications	Che-Feng Hsu*1, Chian-Yu Yao1, Jei-Li Hou2, Ting-Jen Hsueh1 1.Department of Electronic Engineering National Kaohsiung University of Science and Technology Kaohsiung 807, Taiwan 2.Department of Microelectronics Engineering National Kaohsiung University of Science and Technology Kaohsiung 807, Taiwan
P-D-13	Mr. Tzung-Yuan Wu	Effects of Surface-Modified Powders on the Sintering and Dielectric Properties of (Mg1-xZnx)2SiO4 Dielectric Ceramics	Tzung-Yuan Wu*1, Shao-Ju Shih1 1 Department of Materials Science and Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan
P-D-14	Mr. Kaoru Miyashita	Substitution behavior of rare-earth elements in apatite under high pressure condition	Kaoru Miyashita*1, Masanori Takemoto1, Tatsuya Okubo1, Toru Wakihara1,2 1 Department of Chemical System Engineering, The University of Tokyo, Japan 2 Institute of Engineering Innovation, The University of Tokyo, Japan
P-D-15	Prof. Yung-Tang Nien	Preparation and characterization of yttrium aluminum garnet phosphor ceramics using laser-assisted flash sintering	Y.T. Nien*, Z.Y. Ho, X.M. Su, S.C. Ma, C.Y. Chen Department of Materials Science and Engineering, National Formosa University, Taiwan
P-D-16	Mr. Yan-Ting Lin	Effect of residual stress on low-temperature degradation resistance of zirconia	Yan-Ting Lin *1, Wei-Hsing Tuan 1, Jin-Ren Chen 2, Po-Liang Lai 2 1 Department of Materials Science and Engineering, National Taiwan University 2 Department of Orthopedic Surgery, Bone and Joint Research Center, Chang Gung Memorial Hospital at Linkou, Taoyuan, Taiwan 333
P-D-17	Ms. Seika Tokumitsu	Design and evaluation of ternary-composite-ceramic phosphors using SPS method	Seika Tokumitsu 1, Tsuneo Kusunoki1, Satoshi Makio1, Hisashi Minemoto 2 1 OXIDE Corporation, Japan 2 Institute of Laser Engineering, Osaka University, Japan
P-D-18	Dr. Haruka Abe	Evaluation of Thermal Properties of Thermal Barrier Coatings Deposited with Ceramic Fine Particles	H Abe*1, K Shinoda2, M Akoshima1, K Kinoshita3, M Suzuki4, M Shahien2 1 National Metrology Institute of Japan, National Institute of Advanced Industrial Science and Technology (AIST), Japan 2 Advanced Manufacturing Research Institute (AMRI), AIST, Japan 3 Department of Energy and Environment, AIST, Japan 4 Global Zero Emission Research Center (GZR), AIST, Japan
P-D-19	Dr. Haruka Abe	Development of a Method for Measuring Thermal Conductivity of Powders using Spherical Structures	Haruka Abe*1 1 National Metrology Institute of Japan, National Institute of Advanced Industrial Science and Technology (AIST), Japan
P-D-20	Mr. Takahiro Saito	Effect of TiO2 and AlN addition on the mesoscale mechanical properties of Si3N4 ceramics	Takahiro Saito*1, Junichi Tatami1, Motoyuki Iijima1, Tatsuki Ohji1, Tsukaho Yahagi2, Takuma Takahashi2, Hiromi Nakano3 1 Yokohama National University 2 Kanagawa Institute of Industrial Science and Technology 3 Toyohashi University of Technology
P-D-21	Prof. Chika Takai	Surface affinity of silica particles investigated by a time-domain nuclear magnetic resonance (TD-NMR)	Tomoya Nagata*1), Ariga Kato1), Junko Ikeda2,3), Tomonori Fukasawa4), Paul Kinyanjui Kimani5), Yukari Sasaki5), Chika Takai-Yamashita1, 3, 5)
P-D-22	Prof. Sheng-Po Chang	Fabrication and Characteristics of WIZO MSM UV Photodetectors	Sheng-Po Chang*1, Yi Chou*1 1 Department of Microelectronics Engineering, National Kaohsiung University of Science and Technology, Taiwan
P-D-23	Prof. Chun-Kai Wang	Effect of Annealing Temperature on RF-Sputtered Ga_2O_3 MSM Deep Ultraviolet Photodetectors on Sapphire Substrate	Chun-Kai Wang*1), Yu-Zung Chiou 2), Hong-De Liou 2) 1) Department of Microelectronics Engineering, National Kaohsiung University of Science and Technology, Taiwan 2) Department of Electronics Engineering, Southern Taiwan University of Science and Technology, Taiwan
P-E-01	Mr. Michael Castro	Development of a Reduced-order Model for Gas-Solid Flow with Heat Transfer	M. Castro* 1, S. Li 1, K. Yang 1, T. Imatani 1, M. Sakai 1 1 Department of Nuclear Engineering and Management, The University of Tokyo, Tokyo, Japan
P-E-02	Mr. JHE-WEI WU	Mathematically Simplified Solid-Solid-Liquid Phase Diagram for Chiral Resolution Process Development	Jhe-Wei Wu*1, Dhanang Edy Pratama1, Chia-Yen Huang1, Tu Lee1 1 Department of Chemical and Materials Engineering, National Central University, 300 Zhongda Road, Zhongli District, Taoyuan City 320317, Taiwan R.O.C
P-E-03	Mr. Arata Hashimoto	Numerical simulation on sequential powder die-filling processes in a rotary tablet press	A. Hashimoto*1, M. Sakai1 1 The University of Tokyo, Japan
P-E-04	Dr. Jiangkuan Xing	Carrier-phase Direct Numerical Simulations of Coal Gasification Using Detailed and Global Chemistry	Jiangkuan Xing *1, Satoshi Umemoto 2, Kenji Tanno 2, Hiroaki Watanabe 3, Ryoichi Kurose1 1 Department of Mechanical Engineering and Science, Kyoto University, Japan 2 Central Research Institute of Electric Power Industry (CRIEPI), Japan 3 Department of Advanced Environmental Science and Engineering, Kyushu University, Japan
P-E-05	Mr. Kai-en Yang	Multi-timescale Reduced-order Model: A Data-driven Approach for Fast DEM-CFD Simulations	Kai-en Yang *1, Shuo Li 1, Mikio Sakai 1 1 Department of Nuclear Engineering and Management, The University of Tokyo, Japan

P-E-06	Mr. Boen LI	Numerical analysis on gas-solid-liquid flow system by the DEM-VOF method	Boen LI *1, Toshiki IMATANI 1, Mikio SAKAI 1 1 Department of Nuclear Engineering & Management, the University of Tokyo
P-E-07	Prof. Hai-Ping Hu	Influences of interfacial shear stress in phase change heat transfer on an on-isothermal sphere with eddy diffusivity	Hai-Ping Hu Department of Marine Engineering, National Taiwan Ocean University, Taiwan
P-E-08	Mr. Masato Nii	Mesoscale numerical modeling of reactive flow in packed bed reactor of porous particles	M. Nii *, M. Shirzadi, T. Ogi, T. Fukasawa, K. Fukui, T. Ishigami
P-E-09	Dr. Li-Shin Lu	Analysis of the Influence of Hot Briquetted Iron Addition on the Charging and Discharging Behavior in a Blast Furnace-Top Hopper Using the Discrete Element Method	Li-Shin Lu *1, Qi-Han Jiang 2, Shu-San Hsiau 2,3 , Tsung-Yen Huang 4, Yong-Hao Siao 4 1. Department of Industrial Engineering and Management, National Quemoy University, Kinmen, Taiwan 2. Department of Mechanical Engineering, National Central University, Taoyuan, Taiwan 3. Institute of Energy Engineering, National Central University, Taoyuan, Taiwan 4. China Steel Corporation, Kaohsiung, Taiwan
P-E-10	Mr. Ryo Tamai	CFD-DEM simulation of pneumatic conveying using a coarse grain model	Ryo Tamai*, Takuya Tsuji, Toshitsugu Tanaka, Kimiaki Washino Department of Mechanical Engineering, The University of Osaka, Osaka, Japan
P-E-11	Mr. Iori Nishizawa	Modeling Consolidation Behaviour Using DEM-Based Approach	Iori Nishizawa *1), Kizuku Kushimoto 2), Junya Kano 2) 1) Graduate School of Environmental Studies, Tohoku University, Japan 2) Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Japan
P-E-12	Dr. Qi Chen	Numerical Simulation of the Interface Failure Behavior of Ytterbium Disilicate Environmental Barrier Coatings under Water Vapor Corrosion and Thermal Cycling Conditions	Qi Chen*1,2, Jiemin Wang1, Jie Zhang1, Jingyang Wang1 1 Institute of Metal Research, Chinese Academy of Sciences, China 2 School of Materials Science and Engineering, University of Science and Technology of China, China
P-E-13	Mr. Kota Matsunaga	LS-SPH: A high order SPH formulation based on the moving least squares with boundary constraints	Kota Matsunaga*1, Shujiro Fujioka*1, Kensuke Shobuzako*2, Mitsuteru Asai*1 1 Graduate School of Civil Engineering, Kyushu University, Japan 2 Department of Earth and Planetary Sciences, Graduate School of Science, Kyushu University, Japan
P-E-14	Mr. Taiki Segawa	SPH Formulation on Non-Newtonian Model for Fresh Concrete Flow Prediction	Taiki Segawa*1, Yoshiya Shirakami*1, Yoichi Yuki*2, Suguru Kano*2, Mitsuteru Asai*1 1 Graduate School of Civil Engineering, Kyushu University, Japan 2 Yokogawa Bridge Holdings Corporation, Japan
P-E-15	Prof. Xiaoxia Guo	Discrete Element Analysis of the Dynamic Behavior of Frozen Gravel Runways Under Aircraft Load Effects	Xiaoying Cheng, Xiaoxia Guo*, Shunying Ji State Key Laboratory of Structural Analysis, Optimization and CAE Software for Industrial Equipment, Dalian University of Technology, Dalian 116024, China