

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
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9-Jul 8:30 10:00 I Session A Session chair Kenji Iimura (University of Hyogo, Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	8:30	9:00	I	A	○	Prof. Chiharu Tokoro	Electric Pulse-Driven Dismantling Technologies to Support the Circular Economy	Chiharu Tokoro*1, 2 1 Faculty of Science and Engineering, Waseda University, Japan 2 Faculty of Engineering, The University of Tokyo, Japan	1-I-A-01
9-Jul	9:00	9:30	I	A	○	Prof. Wei-Hsing Tuan	Characterization of the long-term stability of zirconia products	Wei-Hsing Tuan*1, Yan-Ting Lin1, Yu-Wen Hsiao1, I-Ting Kuo1, Jin-Ren Chen2, Po-Liang Lai2	1-I-A-02
9-Jul	9:30	10:00	I	A	○	Prof. Jian Luo	Interfacial Phase-like Transitions: From Computing Grain Boundary Phase Diagrams to	Jian Luo *1 1 University of California San Diego, U.S.A.	1-I-A-03
9-Jul	10:00	10:20	I			Coffee break	Coffee break		

9-Jul 10:20 12:00 I Session A Session chair Hiroshi Satone (University of Hyogo, Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	10:20	10:40	I	A		Prof. Kenji Iimura	Degradation of organic substances using peroxotitanic acid sol	Kenji Iimura*, Kazuma Shimoyama, Kouji Maeda, Hiroshi Satone Dept. of Eng., Grad. School of Eng., Univ. of Hyogo, Japan	1-I-A-04
9-Jul	10:40	11:00	I	A		Prof. Takamasa Mori	Characterization of Particles Dispersion State in Nano-Particle Slurries by Osmotic Pressure Measurement	Takamasa Mori*1, Kenta Kitamura1, Koshi Takei1, Satoru Konabe1 1 Hosei University	1-I-A-05
9-Jul	11:00	11:20	I	A		Prof. Shu-San Hsiau	Effects of Fine Powder on Granular Dam-Break Collapse Flow	Shu-San Hsiau*1, Li-Tsung Sheng2, Yu-Hsiang Sung1 1 National Central University, Taiwan 2 National Ilan University, Taiwan	1-I-A-06
9-Jul	11:20	11:40	I	A		Mr. Ashwin Mylappurath Sunil	A mechanism study on stress and pressure management during Binder Burnout Process	Ashwin M S *1,2 ,Binghuan Gao 1 , Hyeon-Jin Son1, YangYang Li 1, Oeun Kwon 1, Ho-young Ahn 1,Chang-Jun Bae1,2 1 3D Printing Materials Centre, Korea Institute of Materials Science, Republic of Korea Department of Advanced Materials Engineering, University of Science & Technology (UST) , Republic of Korea	1-I-A-07
9-Jul	11:40	12:00	I	A		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	1-I-A-08
9-Jul	12:00	13:20	I			Lunch	Lunch		

9-Jul 13:20 14:50 I Session A Session chair Manabu Fukushima (AIST, Japan)

	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	13:20	13:50	I	A	○	Dr. Mrityunjay Singh	Strategically Aligned and Innovation Driven Strategies for Achieving Net-Zero Emissions and Sustainable Development Goals (SDGs)	Mrityunjay Singh President, Global Alliance for Technology and Society, USA; President, World Academy of Ceramics, Italy; Past President, The American Ceramic Society	1-I-A-09
9-Jul	13:50	14:20	I	A	○	Prof. Tatsuki Ohji	Progress of Silicon Nitride Ceramics	Tatsuki Ohji*1, Junichi Tatami1 1 Yokohama National University, Japan	1-I-A-10
9-Jul	14:20	14:50	I	A	○	Prof. Fiqiri Hodaj	Fundamental issues of wetting and interfacial reactivity in ceramic to metal brazing	Fiqiri Hodaj*1 1 Univ. Grenoble Alpes, CNRS, Grenoble INP, SIMAP, F-38000 Grenoble, France	1-I-A-11
9-Jul	14:50	15:10	I			Coffee break	Coffee break		

9-Jul 15:10 17:10 I Session A Session chair Tatsuki Ohji (Yokohama National University, Japan)

	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	15:10	15:40	I	A	○	Prof. Ungyu Paik	Nanoparticle Engineering in Advanced Semiconductor Fabrication Manufacturing	Ungyu Paik1*, Taeseup Song1,2, Yeon-gil Jung3, Je-hyun Lee3, Jeong-gu Yeo4, Joonhyeok Park1, Jaeik Kim1, Insung Hwang1, Jiwoon Kim1, Ganggyu Lee1, Minsung Kim1, Seungmin Han1, Jooheon Sun1 1Department of Energy Engineering, Hanyang University, Seoul 04763, Korea 2Department of Battery Engineering, Hanyang University, Seoul 04763, Korea 3Department of Advanced Materials, Changwon National University, Changwon 51140, Korea 4Advanced Materials and Devices Lab., Korea Institute of Energy Research, Daejeon 34129, Korea	1-I-A-12
9-Jul	15:40	16:10	I	A	○	Prof. Satoshi Tanaka	Development of LGVO-based composite solid electrolytes for low-temperature sintering and high ionic conductivity	S. Tanaka*1, T. Hirata1, M. Sato 1 Nagaoka University of Technology, Japan	1-I-A-13
9-Jul	16:10	16:30	I	A		Dr. Kento Ishii	Highly-dispersed hollow silica nanoparticles synthesized using emulsion droplet templates and their applications	Kento Ishii 1), Ryoma Ichihara 1), Yuuki Yoshida 1), Nao Tanaka 1), Jisheng Zhou 2), Masayoshi Fuji 1) 1) Advanced Ceramics Research Center, Nagoya Institute of Technology, Japan 2) State Key Laboratory of Chemical Resource Engineering, Beijing University of Chemical Technology, China	1-I-A-14
9-Jul	16:30	16:50	I	A		Engr. Glenn Ruel Fulio Maujon	Evaluation of the Interface Characteristics of Hybrid Mesoporous Silicates Powders Synthesized via Soft-templating Approach from Bio-agricultural Waste, and its Potential Applications	Glenn Ruel F. Maujon*1,2, Harvey D. Melendrez1,2, Maria Elisa Refugio1,2, Sean Kenneth Manlupig1,2, Corrine Iris Cahimtong1,2, Liezl M. Jabile1,2, Ivyleen B. Arugay1,2, and Raymond V. Rivera- Virtudazo1, 2 1 Advanced Porous Ceramic Particles (APCerP) Lab., Ceramic Researches for Engineering Advanced Technology & Environment (CREATE) Lab, Research Center for Advanced Ceramics (RCAC), Research Institute for Engineering and Innovative Technology (RIEIT), Mindanao State University – Iligan Institute of Technology, Iligan City 9200, Philippines 2 Department of Materials and Resources Engineering and Technology, College of Engineering and Technology, Mindanao State University – Iligan Institute of Technology, Iligan City 9200, Philippines	1-I-A-15
9-Jul	16:50	17:10	I	A		Mr. Ho Young An	Sintering and piezoelectric properties of BNT-6BT Lead-Free Piezoceramics Using TGG- enhanced Ultra-fast High Temperature Sintering	Hoyoung AN 12*, seongwan Jang1, Chang-jun Bae1 1) 3D Printing Materials Center, Korea Institute of Materials Science(KIMS), Changwon 51508, Republic of Korea 2) Department of Materials Science and Engineering, Pusan national University, Busan, Republic of Korea	1-I-A-16

9-Jul 8:30 10:00 II Session C Session chair Maria Eugenia Rabanal (Universidad Carlos III de Madrid, Spain)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	8:30	9:00	II	C	○	Dr. Shibin Jiang	Laser Processing Machines for Ceramic Drilling and Cutting	Shibin Jiang AdValue Photoncs Inc, Hangzhou Silverlake Lasers	1-II-C-01
9-Jul	9:00	9:30	II	C	○	Prof. Federico Smeacetto	Glass and ceramics for hydrogen technologies: design, processing, joining and integration	Federico Smeacetto* Politecnico di Torino, Italy	1-II-C-02
9-Jul	9:30	10:00	II	C	○	Prof. Monica Ferraris	Joining and Integration of Ceramic Matrix Composites for Energy Applications	Monica Ferraris Politecnico di Torino, Italy	1-II-C-03
9-Jul	10:00	10:20	II			Coffee break	Coffee break		

9-Jul 10:20 12:00 II Session D Session chair Pavol Sajgalik (Slovak Academy of Sciences, Slovakia)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	10:20	10:50	II	D	○	Prof. Hua Tay Lin	Low-temperature Processing of (Ti, Zr, Nb, Ta, Mo)C high-entropy Carbides with Ultrafine Grain and Enhanced Hardness	Yang Liu, Wei Ming Guo, Yu Tian, Hua Tay Lin* School of Electromechanical Engineering, Guangdong University of Technology, Guangzhou, China	1-II-D-04
9-Jul	10:50	11:20	II	D	○	Prof. Zbigniew Pedzich	Interfaces in Reactively Sintered Borides/Carbides UHTC Composites	Zbigniew Pedzich*1, Agnieszka Gubernat1, Dawid Kozien1, Piotr Klimczyk2, Csaba Balazsi3, Peter Tatarko4, David Salamon5 1 AGH University of Krakow, Department of Ceramics and Refractory Materials, Krakow, Poland 2 Lukaszewicz Research Network, Krakow Institute of Technology, Krakow, Poland 3 Centre for Energy Research of Hungarian Academy of Sciences, Budapest, Hungary 4 Slovak Academy of Sciences, Institute of Inorganic Chemistry, Bratislava, Slovakia 5 Brno University of Technology, Central European Institute of Technology, Brno, Czech Republic	1-II-D-05
9-Jul	11:20	11:40	II	D		Dr. Koji Morita	Effects of Grain Boundaries on Plasticity in Ti2SiC2-MAX Phase	Koji Morita* 1,2,3, Tokifusa Higuchi 2, Daisuke Terada 2 and Takahito Ohmura 3,4 1 National Institute for Materials Science, Japan 2 Chiba Institute of Technology, Japan 3 Kyushu University, Japa 4 National Institute for Materials Science, Japan	1-II-D-06
9-Jul	11:40	12:00	II	D		Prof. Guo-Jun Zhang	Composition design and performance evaluation of high-entropy A2B2O7-type rare-earth zirconate ceramics	Guo-Jun Zhang*1, 2, Ji-Xuan Liu1 1. Institute of Functional Materials, Donghua University, China 2. State Key Laboratory of Advanced Fiber Materials, Donghua University, China	1-II-D-07
9-Jul	12:00	13:20	II			Lunch	Lunch		

9-Jul 13:20 14:50 II Session D Session chair Katalin Balazsi (Institute for Technical Physics and Materials Science, Hungary)

	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	13:20	13:50	II	D	○	Prof. Maria Eugenia Rabanal	Photocatalysis and its Environmental applications: a Sustainable Approach	A. Ferreira 1, A. Urbieto 2 M. Quevedo-Lopez 3, P. Fernandez 2 , ME. Rabanal* 1, 4 1) Materials Science and Engineering Department, Universidad Carlos III de Madrid, Leganés (Madrid), Spain 2) Material Physics Department, Universidad Complutense 3) University of Texas at Dallas, USA 4) Instituto Tecnológico de Química - Materiales "Álvaro Alonso Barba", Leganés (Madrid), Spain	1-II-D-08
9-Jul	13:50	14:10	II	D		Prof. Yuta Matsushima	Ag+ Superionic Conductors Based on AgI and Silver Oxyacid Salts	Yuta Matsushima* 1, Ryota Kawanago 1, Kakeru Arai 1, Shu Yin 2 1 Yamagata University, Japan. 2 Tohoku University, Japan	1-II-D-09
9-Jul	14:10	14:30	II	D		Ms. Ayumi Ohashi	Experimental and numerical investigation of cyclodextrin-based MOF particles with amphiphilic pores for multiple drug carriers	Ayumi Ohashi*1), Shuji Ohsaki1), Hideya Nakamura1), Satoru Watano1) 1) Department of Chemical Engineering, Osaka Metropolitan University, Japan	1-II-D-10
9-Jul	14:30	14:50	II	D		Dr. Yuto Higuchi	Control of the composition ratio of CHA/PHI zeolite particles toward the stabilization of CO2 gate adsorption behavior	Yuto Higuchi*1,2, Shunsuke Tanaka1,2 1 Department of Chemical, Energy and Environmental Engineering, Kansai University, Japan 2 Organization for Research and Development of Innovative Science and Technology, Kansai University, Japan	1-II-D-11
9-Jul	14:50	15:10	II			Coffee break	Coffee break		

9-Jul 15:10 17:10 II Session D Session chair Hua Tay Lin (Guangdong University of Technology, Guangzhou, China)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	15:10	15:40	II	D	○	Dr. Manabu Fukushima	Characterization prediction of high thermal conductivity silicon nitride ceramics with engineered microstructural characteristics	Yuki Nakashima ¹ , Manabu Fukushima* ¹ , Ryoichi Furushima ¹ , You Zhou ¹ , Tatsuki Ohji ¹ , Kiyoshi Hira ¹ ¹ National Institute of Advanced Industrial Science and Technology (AIST), Japan	1-II-D-12
9-Jul	15:40	16:10	II	D	○	Dr. Csaba Balázs	Carbon nanophases in silicon nitride	Csaba Balázs* ¹), Katalin Balázs ¹) ¹) HUN-REN Centre for Energy Research, Institute for Technical Physics and Materials Science, 1121 Budapest, Konkoly-Thege str. 29-33.	1-II-D-13
9-Jul	16:10	16:40	II	D	○	Prof. Pavol Šajgalik	Is silicon nitride based ceramics suitable for the drug delivery ?	Pavol Šajgalik* Slovak Academy of Sciences	1-II-D-14
9-Jul	16:40	17:10	II	D	○	Dr. Katalin Balázs	Pressureless sintering in hydrogen of hot isostatic pressed Al ₂ O ₃ prepared from oxidized AlN powder	Katalin Balázs* ¹ , Csaba Balázs ¹ ¹ HUN-REN Centre for Energy Research, Institute for Technical Physics and Materials Science, 1121 Budapest, Konkoly-Thege str. 29-33.	1-II-D-15

9-Jul 8:30 9:50 III Session F Session chair Motoyuki Iijima (Yokohama National University, Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	8:30	9:00	III	F	○	Dr. Satoshi Watanabe	Size Controlled Synthesis of Flexible Metal-Organic Framework Particles to Regulate Their Adsorption Properties	Satoshi Watanabe Department of Chemical Engineering	1-III-F-01
9-Jul	9:00	9:30	III	F	○	Prof. Nicolas Vogel	Supraparticles as model systems to investigate structure-property relations in particulate systems	Nicolas Vogel* ¹ ¹ Institute of Particle Technology, Friedrich-Alexander-Universität Erlangen-Nürnberg	1-III-F-02
9-Jul	9:30	9:50	III	F	○	Prof. Junwei Wang	Sustainable Structural Color Pigments From Bacteria-Based Materials	Junwei Wang * ^{1,2,4} , Marina Portoghesi ^{1,2} , Javiera Gormaz ¹ , Jost Kirchner ¹ , Maria Murace ² , Laura Caton ² , Colin Ingham ³ , Silvia Vignolini ^{1,2} ¹) Max Planck Institute of Colloids and Interfaces, Germany ²) University of Cambridge, UK ³) Hoekmine BV, Netherland ⁴) Eastern Institute of Technology Ningbo, China	1-III-F-03
9-Jul	9:50	10:20	III			Coffee break	Coffee break		

9-Jul 10:20 11:50 III Session F Session chair Satoshi Watanabe (Kyoto University, Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	10:20	10:50	III	F	○	Prof. YUCHI FAN	Large internal stress induced nonlinear current-voltage behavior in nanodiamond strengthened ZnO ceramics	Yuchi Fan* ¹ and Peng Yan ¹ ¹ Donghua university	1-III-F-04
9-Jul	10:50	11:20	III	F	○	Dr. Chang-Jun Bae	Parametric Investigation of Ceramic Additive Manufacturing	Chang-Jun Bae* ^{1,2} , Yang-yang Li ¹ ¹ Korea Institute of Materials Science (KIMS), South Korea ² Advanced Materials Engineering, University of Science & Technology (UST), South Korea	1-III-F-05
9-Jul	11:20	11:50	III	F	○	Dr. Motoyuki Iijima	Photocurable suspension design for sustainable 3D printing of ceramic components	M. Iijima* ¹ , Y. Hiroshige ¹ , Y. Yamanoi ¹ , J. Tatami ¹ ¹ Yokohama National University, Japan	1-III-F-06
9-Jul	11:50	13:20	III			Lunch	Lunch		

9-Jul 13:20 14:50 III Session B Session chair Hidehiro Kamiya (Waseda University, Japan)

	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	13:20	13:50	III	B	○	Dr. Tohru S. SUZUKI	Fabrication of textured lanthanum silicate oxyapatite phosphor by magnetic field and SPS	Tohru S. Suzuki*1, Harune Ariga1, 2, Kiyoshi Kobayashi1, Akihiro Kawamura1, 2, Hajime Kiyono2 1 National Institute for Materials Science, Japan 2 Shibaura Institute of Technology, Japan	1-III-B-07
9-Jul	13:50	14:10	III	B		Prof. Shao-Ju Shih	Development of beta-tricalcium phosphate-contained scaffolds using spray drying and freeze-drying techniques	Shao-Ju Shih*, Dwi Fortuna Anjusa Putra, and Wu Ting-Wei Department of Materials Science and Engineering, National Taiwan University of Science and Technology, Taiwan	1-III-B-08
9-Jul	14:10	14:30	III	B		Prof. Hiromitsu Yamamoto	Effect of Addition of Cellulose Nanofiber to Solid Dispersion Formulations to Improve the Solubility of Poorly Water-Soluble Drugs	Hiromitsu Yamamoto*1, Tomomi Takabayashi1, Toshiya Yasunaga1 1 School of Pharmacy, Aichi Gakuin University, Japan	1-III-B-09
9-Jul	14:30	14:50	III	B		Ms. Riko Yamazaki	Spray freeze granulation drying using non-aqueous slurries for fabricating homogeneous silicon nitride ceramics	R. Yamazaki*1, J. Tatami1, M. Iijima1, S. Kawaguchi2, N. Kondo3 1 Yokohama National University 2 Preci Co., Ltd. 3. National Institute of Advanced Industrial Science and Technology	1-III-B-10
9-Jul	14:50	15:10	III			Coffee break	Coffee break		

9-Jul 15:10 17:00 III Session B Session chair Junya Kano (Tohoku University, Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	15:10	15:40	III	B	○	Dr. Yoshio Sakka	Texturing and mechanical properties of MAX phase ceramics	Yoshio Sakka*, Tohru S. Suzuki, Koji Morita National Institute for Materials Science, Japan	1-III-B-11
9-Jul	15:40	16:00	III	B		Prof. Jen-Shyang Ni	Organonickel complexes constructed solar energy-to-heating interfacial evaporators for high-effective desalination	Jen-Shyang Ni*1,2, Joanna S. Lin1, Yung-Cong Yang1, Yi-Ting Lin1 1 Department of Chemical and Materials Engineering, National Kaohsiung University of Science and Technology (NKUST), Taiwan, 2 Photo-sensitive Material Advanced Research and Technology Center (Photo-SMART), NKUST, Taiwan	1-III-B-12
9-Jul	16:00	16:20	III	B		Dr. Dawid Kozieł	Surface Functionalisation of Boron Carbide Nanoparticles for Enhanced Biocompatibility and Targeting in Boron Neutron Capture Therapy	Dawid Kozieł 1*), Magdalena Gil1), Paulina Żeliszewska2), Bożena Szermer-Olechnik3), Karolina Krygowska1), Agnieszka Szczygieł3), Szymon Tott4), Maciej Roman 4), Zbigniew Pełdzich1)	1-III-B-13
9-Jul	16:20	16:40	III	B		Dr. Ji-Guang Li	Engineering of Layered Rare-Earth Hydroxide for Green Synthesis of Oxysulfide Nanopowders and Low-Temperature Sintering of Dense Ceramics	Ji-Guang Li*1, Koji Morita1 1 National Institute for Materials Science, Japan	1-III-B-14
9-Jul	16:40	17:00	III	B		Prof. Ji-Xuan Liu	Effects of SiC on the microstructure and properties of high-entropy diboride ceramics	Ji-Xuan Liu*1, Guo-Jun Zhang1,2 1 Institute of Functional Materials, Donghua University, China 2 State Key Laboratory of Advanced Fiber Materials, Donghua University, China	1-III-B-15

9-Jul 8:30 10:00 IV Session E Session chair Mikio Sakai (The University of Tokyo, Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	8:30	9:00	IV	E	○	Prof. Mikio Sakai	Integrating DEM Simulations and Data Science for Next-Generation Industrial Powder Processing	Mikio Sakai1) 1) Department of Nuclear Engineering & Management, School of Engineering, The University of Tokyo, Japan	1-IV-E-01
9-Jul	9:00	9:30	IV	E	○	Prof. Nicolin Govender	Industrial Multi-Physics simulations using accurate particle shape on GPU	University College London	1-IV-E-02
9-Jul	9:30	10:00	IV	E	○	Prof. Shunying Ji	Coupled SPH-DEM-FEM Model for Interaction between Water, Sea Ice and Marine Structures	Shunying Ji*1, Jie Wu1, Lu Liu1 1 Dalian University of Technology, China	1-IV-E-03
9-Jul	10:00	10:20	IV			Coffee break	Coffee break		

9-Jul 10:20 11:50 IV Session E Session chair

Shunying Ji (Dalian University of Technology, China)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	10:20	10:50	IV	E	○	Prof. Charley Chuan-Yu Wu	Modelling Dispersion of Particles in Fluids using DEM-SPH	Dinesh Adepu ^{a1} , Chuan-Yu Wu ¹ 1 University of Surrey	1-IV-E-04
9-Jul	10:50	11:20	IV	E	○	Prof. Wei Ge	Trans-level multi-scale simulation of reaction-diffusion processes	Wei Ge ^{*1,2} , Chengxiang Li ^{1,2} , Ji Xu ^{1,2} 1 State Key Laboratory of Mesoscience and Engineering, Institute of Process Engineering, Chinese Academy of Sciences, Beijing 100190, China, 2 School of Chemical Engineering, University of Chinese Academy of Sciences, Beijing 101408, China	1-IV-E-05
9-Jul	11:20	11:50	IV	E	○	Prof. Kun Luo	Efficient Simulation of Dense Gas-solid Reactive Flows	Kun Luo [*] , Shuai Wang, Junjie Lin, Jianren Fan State Key Laboratory of Clean Energy Utilization, Zhejiang University, Hangzhou, P. R. China	1-IV-E-06
9-Jul	11:50	13:20	IV			Lunch	Lunch		

9-Jul 13:20 14:50 II Session E Session chair

Charley Wu (University of Surrey, UK)

	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	13:20	13:50	IV	E	○	Prof. Jidong Zhao	High-fidelity Computational Modeling of Keyhole Formation in Laser Powder Bed Fusion	Jidong Zhao [*] and Tao Yu Dept of Civil and Environmental Engineering, Hong Kong University of Science and Technology, Hong Kong	1-IV-E-07
9-Jul	13:50	14:20	IV	E	○	Prof. Yu Guo	Effects of particle elongation and deformation on granular dissipation and jamming in multiphase flows	Yu Guo [*] 1, Peng Wang1, Jiawei Han1, Junjie Chen1 1 Department of Engineering Mechanics, Zhejiang University, Hangzhou, 320027, China	1-IV-E-08
9-Jul	14:20	14:50	IV	E	○	Dr. Kimiaki Washino	DEM Simulations of Packing Behaviour of Fine and Cohesive Granular Materials	Kimiaki Washino [*] Department of Mechanical Engineering, The University of Osaka, Japan	1-IV-E-09
9-Jul	14:50	15:10	IV			Coffee break	Coffee break		

9-Jul 15:10 16:40 IV Session E Session chair

Kun Luo (Zhejiang University, China)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
9-Jul	15:10	15:40	IV	E	○	Dr. Yuki Tsunazawa	Numerical Analysis of the Density Segregation Mechanism on a Shaking Table Using the Discrete Element Method	Yuki Tsunazawa ^{*1} , Yoshiaki Kon 1 1 Geological Survey of Japan, National Institute of Advanced Industrial Science and Technology (AIST), Japan	1-IV-E-10
9-Jul	15:40	16:00	IV	E	○	Dr. Yasushi Mino	Lattice Boltzmann Simulation of Capillary Interactions between Colloidal Particles	Yasushi Mino ^{*1} 1 Okayama University, Japan	1-IV-E-11
9-Jul	16:00	16:20	IV	E		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	1-IV-E-12
9-Jul	16:20	16:40	IV	E		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	1-IV-E-13

9-Jul	17:20	19:00	V	Poster session					
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10-Jul 8:30 10:20 I Session C Session chair Norifumi Isu (Shinshu University, Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
10-Jul	8:30	9:00	I	C	○	Prof. Taeseup Song	Engineering the interface between electrolyte and electrode in all-solid-state batteries	Taeseup Song*1,2, Seunceol Myeong1, Seungwoo Lee1, Hyungjun Lee1, Joonhyeok Park1, Jaeik Kim1, Insung Hwang1, Jiwoon Kim1, Ganggyu Lee1, Minsung Kim1, Seungmin Han1, Jooheon Sun1, Soomin Hong1, Jinwoo Jeong2, Yeseung Lee2, Ungyu Paik1 1 Department of Energy Engineering, Hanyang University, Republic of Korea 2 Department of Battery Engineering, Hanyang University, Republic of Korea	2-I-C-01
10-Jul	9:00	9:20	I	C		Ms. Carina Heck	Exploring Densification of Sulfide-Based Electrolytes: The Role of Hydrogenated Nitrile Butadiene Rubber in Enabling Scalable Production of Separator Films for Solid-State Batteries	Carina A. Heck*1,2, Duc Hien Nguyen3, Lars Bröcker4, Martin A. Lange5, Vasiliki Faka6, Alexander Diener1,2, Timon Scharmann2,7, Jeff Bastian Wongso Wijaya3, Lennart Blume1,2, Peter Michalowski1,2, Klaus Dröder2,7, Wolfgang G. Zeier5,6, Bettina V. Lotsch3, Arno Kwade1,2 1) Institute for Particle Technology, Technische Universität Braunschweig, Germany 2) Battery LabFactory Braunschweig, Technische Universität Braunschweig, Germany 3) Max Planck Institute for Solid State Research, Germany 4) Institute for Surface Technology, Technische Universität Braunschweig, Germany 5) Institute of Energy Materials and Devices, Helmholtz Institute Münster Ionics in Energy Storage, Forschungszentrum Jülich GmbH, Germany 6) Institute of Inorganic and Analytical Chemistry, University of Münster, Germany 7) Institute of Machine Tools and Production Technology, Technische Universität Braunschweig, Germany	2-I-C-02
10-Jul	9:20	9:40	I	C		Mr. Alexander Diener	Tailoring Calendering Behavior and Cell Performance through Carbon Black Agglomerate Control in NMC622 Cathodes	Alexander Diener* 1,2), Julian Kristoffer Mayer 1,2), Tim Grenda1,2), Peter Michalowski Arno Kwade 1,2) 1) Institute for Particle Technology, Technische Universität Braunschweig, Germany 2) Battery LabFactory Braunschweig, Technische Universität Braunschweig, Germany	2-I-C-03
10-Jul	9:40	10:00	I	C		Mr. WenWei Shih	Flexible Electronic Devices based on Ga-doped ZnO Nanorods	Wen-Wei Shih*1, Chun-Wei Huang1 1 Department of Materials Science and Engineering, Feng Chia University, Taichung, Taiwan	2-I-C-04
10-Jul	10:00	10:20	I			Coffee break	Coffee break		

10-Jul 10:20 12:00 I Session C Session chair Masayoshi Fuji (Nagoya Institute of Technology, Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
10-Jul	10:20	10:50	I	C	○	Prof. Marek Łukasz Placzek	Systems for Recovering Electrical Energy from Mechanical Vibrations Using Piezoelectric MFC Transducers: Research and Simulation	M. Placzek * Silesian Univeristy of Technology	2-I-C-05
10-Jul	10:50	11:20	I	C	○	Prof. Wenjea J. Tseng	Enhanced photoelectrochemical activity of inorganic/organic powders containing antiperovskite Ni ₃ ZnN and metal-organic framework Cu ₃ (HHTP) ₂	Hsin-Yun Wu, Wenjea J. Tseng* Department of Materials Science and Engineering, National Chung Hsing University, Taiwan	2-I-C-06
10-Jul	11:20	11:40	I	C		Prof. Chechia Hu	Photothermal HCHO oxidation using MOF-derived MnO ₂ @C catalyst	Wei-Han Wei1, Masaaki Yoshida2, Chechia Hu*1 1 Department of Chemical Engineering, Sustainable Electrochemical Energy Development Center (SEED), National Taiwan University of Science and Technology, Daan Dist., Taipei City, Taiwan 10607 2 Blue energy center for SGE technology (BEST), Yamaguchi University, Ube, Yamaguchi, Japan 755-8611	2-I-C-07
10-Jul	11:40	12:00	I	C		Ms. Masami Koide	Possibility of selective leaching of Cr from electric arc furnace slag by mechanical activation treatment	M. Koide*1,2, Y. Takaya3,4, H. Kamiya5, C. Tokoro3,4 1 Production planning and coordination department, Kyoei Steel Ltd., Japan 2 Graduate School of Creative Science and Engineering, Waseda University, Japan 3 Faculty of Science and Engineering, Waseda University, Japan 4 Faculty of Engineering, The University of Tokyo, Japan 5 Sustainable Energy and Environmental Society Open Innovation Research Organization, Waseda University, Japan	2-I-C-08
10-Jul	12:00	13:00	I			Lunch	Lunch		

10-Jul 8:30 10:00 II Session D Session chair Csaba Balazsi (Institute for Technical Physics and Materials Science, Hungary)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
10-Jul	8:30	9:00	II	D	○	Prof. Toshihiro Ishikawa	Diverse changes in morphology caused by mass transfer phenomenon	Toshihiro Ishikawa 1) 1) Tokyo University of Science, Yamaguchi (Sanyo-Onoda City University), 1-1-1 Daigaku-Dori, Sanyo-Onoda, Yamaguchi 756-0884, Japan	2-II-D-01
10-Jul	9:00	9:20	II	D		Dr. Jiemin Wang	Theoretical Investigation on the Effects of Silicon Doping on the Interface Adhesion and Failure Behaviors of SiC/BN Interface	Jiemin Wang*1, Siyan Zhang2, Jingyang Wang1,2 1 Institute of Metal Research, Chinese Academy of Science, China 2 Institute of Coating Technology for Hydrogen Gas Turbines, Liaoning Academy of Materials, China	2-II-D-02
10-Jul	9:20	9:40	II	D		Dr. Xiaowu Chen	Microstructure Design and Evolution of Water-oxygen Resistant SiCf/SiC Composites	Xiaowu Chen*1, Junmin Zhang2, Feiyu Guo2, Shaoming Dong1 1 Shanghai Institute of Ceramics, Chinese Academy of Sciences, China, 2 Suzhou National Laboratory, China	2-II-D-03
10-Jul	9:40	10:00	II	D		Dr. Xiao You	Lightweight and Porous Ceramic Matrix Composites with Hierarchical Structure for Broadband Electromagnetic Wave Absorption	Xiao You*1, Jinshan Yang1, Shaoming Dong1 1 Shanghai Institute of Ceramics, Chinese Academy of Sciences, China	2-II-D-04
10-Jul	10:00	10:20	II			Coffee break	Coffee break		

10-Jul 10:20 12:00 II Session D Session chair Toshihiro Ishikawa (Tokyo University of Science, Yamaguchi , Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
10-Jul	10:20	10:50	II	D	○	Prof. Nobuhito Imanaka	Unique route to grow single-crystals of non-stoichiometric rare Earth oxides and aluminum oxide	Nobuhito Imanaka* Osaka University Japan	2-II-D-05
10-Jul	10:50	11:20	II	D	○	Prof. Sonia Lucia Fiorilli	Nanostructured (bio)ceramics and advanced fabrication technologies to design multifunctional constructs for hard and soft tissue regeneration	Sonia Fiorilli*1, Giorgia Montalbano1, Chiara Vitale Brovarone1 1) Department of Applied Science and Technology, Politecnico di Torino, Torino, Italy	2-II-D-06
10-Jul	11:20	11:40	II	D		Ms. Xin-Shen Qiu	Investigation of the Solidification Process of Liquid Tellurium-Selenium Alloys and Surface Printing Technology for Fabricating Two-Dimensional TeO ₂ Thin Films	Xin-Yi Qiu*1, Chun-Wei Huang1 1) Department of Materials Science and Engineering, Feng Chia University, Taichung, Taiwan	2-II-D-07
10-Jul	11:40	12:00	II	D		Dr. Olga Martin Cadiz	PLA-lignine-Based Composite Films Filled with Cu ₂ (OH) ₃ NO ₃ Nanoparticles	O. Martin 1, G. Dominguez 2, W. Liang 1, M. Hernandez2, J. Rodriguez 2 and C. Fajardo 2. 1) Dto Cc. e Ingeniería de Materiales e Ing. Química; Universidad Carlos III de Madrid; España 2) Dto de Biomedicina y Biotecnología; Universidad de Alcalá; España .	2-II-D-08
10-Jul	12:00	13:00	II			Lunch	Lunch		

10-Jul 8:30 10:00 III Session B Session chair Jingxian Zhang (Shanghai Institute of Ceramics, CAS, China)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
10-Jul	8:30	9:00	III	B	○	Prof. Loredana Santo	Lunar highlands regolith simulant as raw material for in-space manufacturing	Loredana Santo *, Alice Proietti, Fabrizio Quadrini Department of Industrial Engineering, University of Rome Tor Vergata, Italy	2-III-B-01
10-Jul	9:00	9:20	III	B		Ms. Prutha Nagaraja	Evaluating and optimizing the plastic additive pelleting process with a single-die press	Prutha Nagaraja*1, Shailendra Singh1, Laurent Cavin2, Thomas Gfroerer2, Andreas Thuermer2, Rou Hua Chua3 & Kristian Berland1 1) Department of Mechanical Engineering and Technology Management, Norwegian University of Life Sciences, Elizabeth Stephansens v. 15, 1430 Ås, Norway 2) Form giving and Customer Specific Blends, Plastic Additive, BASF Schweiz AG, Postfach, 4005 Basel, Switzerland 3) Process Research & Chemical Engineering, BASF SE, 67056 Ludwigshafen am Rhein, Germany	2-III-B-02
10-Jul	9:20	9:40	III	B		Mr. Yusuke Otsuka	Synthesis of Short-Chain Ligand-Capped Colloidal Metal Oxide Nanoparticles for Flexible Devices	Yusuke Otsuka*, Hiroyuki Kondo, Keigo Suzuki Murata Manufacturing Co., Ltd., Japan	2-III-B-03
10-Jul	9:40	10:00	III	B		Mr. Taito Ogiya	Formation of chain-structured hollow silica nanoparticles utilizing emulsion self-assembly	T. Ogiya*1, K. Ishii1, J. Zhou2, N. Tanaka1, K. Tsukigi1, M. Fuji1 1 Nagoya Institute of Technology, Japan 2 Beijing University of Chemical Technology, China	2-III-B-04
10-Jul	10:00	10:20	III			Coffee break	Coffee break		

10-Jul 10:20 12:00 III Session B Session chair **Loredana Santo (University of Rome Tor Vergata, Italy)**

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
10-Jul	10:20	10:50	III	B	○	Prof. Tohru Sekino	Low-temperature Densification of Silicon Nitride Ceramics through Cold Sintering Process	Masaya Minehira1, Yeongjun Seo1, Sunghun Cho1, Yoshifumi Kondo1, Tomoyo Goto2,1, Tohru Sekino*1 1 SANKEN, The University of Osaka, Japan 2 Division of Materials Science, Nara Institute of Science and Technology, Japan	2-III-B-05
10-Jul	10:50	11:20	III	B	○	Prof. Jingxian Zhang	Study on the reliability of Si3N4 substrate from tape casting and gas pressure sintering	Jingxian Zhang* Yusen Duan, Dongliang Jiang State Key Laboratory of High Performance Ceramics and Superfine Microstructures, Shanghai Institute of Ceramics, 1295 Dingxi Road, Shanghai 200050, China	2-III-B-06
10-Jul	11:20	11:40	III	B		Dr. Gaku Okuma	Evolution of heterogeneous microstructure in sintering of tape-cast alumina laminates observed by synchrotron X-ray CT	G. Okuma*1, R. Usukawa2, T. Osada1, F. Wakai1 1 National Institute for Materials Science (NIMS), Japan 2 National Institute of Advanced Industrial Science and Technology, Japan	2-III-B-07
10-Jul	11:40	12:00	III	B		Dr. Songshi Li	Internal structure imaging of cathode slurry by equivalent circuit-based electrical impedance tomography	Songshi Li, Taichi Kanamoto, Daisuke Kawashima, Masahiro Takei Chiba University, Japan	2-III-B-08
10-Jul	12:00	13:00	III			Lunch	Lunch		

10-Jul 8:30 10:00 IV Session E Session chair **Kimiaki Washino (The University of Osaka, Japan)**

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
10-Jul	8:30	9:00	IV	E	○	Prof. Wei Wang	Exploring a steady-state multiscale CFD method	Wang Wei*1,2, Zhang Xuekuan 1,2, Tian Yujie 1,2, Lu Bona 1,2, Li Fei 1,2 1 State Key Laboratory of Mesoscience and Engineering, Institute of Process Engineering, Chinese Academy of Sciences, Beijing 100190, China 2 School of Chemical Engineering, University of Chinese Academy of Sciences, Beijing 100049, China	2-IV-E-01
10-Jul	9:00	9:30	IV	E	○	Prof. Mitsuteru Asai	A higher order particle method SPH(2) and its applications	M. Asai*1, S. Fujioka1, K. Tsuji2 1 Kyushu University, Japan 2 Tohoku University	2-IV-E-02
10-Jul	9:30	10:00	IV	E	○	Prof. Hsiu-Po Kuo	A CT-CFD-DEM Study on Coke Formation during the Catalytic Ethylene Oxychlorination Reactions	Hsiu-Po Kuo*1, Cheng-En Li1, Tsuo-Feng Wang1, An-Ni Huang2, Wan-Yi Hsu3 1 National Taiwan University, Taiwan 2 National Taiwan University of Science and Technology, Taiwan 3 Chang Gung University, Taiwan	2-IV-E-03
10-Jul	10:00	10:20	IV			Coffee break	Coffee break		

10-Jul 10:20 11:50 IV Session E Session chair **Wei Wang (Chinese Academy of Sciences, China)**

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
10-Jul	10:20	10:50	IV	E	○	Dr. Shuo Li	Towards digital twins for powder processes with AI-accelerated surrogate models	Shuo Li*1, Mikio SAKAI1 1 The University of Tokyo, Japan	2-IV-E-04
10-Jul	10:50	11:20	IV	E	○	Dr. Jiawei Hu	DEM Modeling and Experimental Analysis of Dynamic Powder Flow in a Continuous Blender		2-IV-E-05
10-Jul	11:20	11:50	IV	E	○	Dr. Kizuku Kushimoto	Development of Cross Bond DEM (XB-DEM) for representing particle breakage behavior	Kizuku Kushimoto*1 and Junya Kano1 1 Institute of Multidisciplinary Research for Advanced Materials (IMRAM), Tohoku University	2-IV-E-06
10-Jul	11:50	13:00	IV			Lunch	Lunch		

11-Jul 8:30 10:00 I Session A Session chair Kunihiro Fukui (Hiroshima University, Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
11-Jul	8:30	9:00	I	A	○	Prof. Hiromi Nakano	In-situ high temperature TEM observations of nano-grains	Hiromi Nakano* Toyohashi University of Technology	3-I-A-01
11-Jul	9:00	9:20	I	A		Prof. Hiroshi Satone	Direct Observation and Analysis of Particle Fracture Phenomena by Impact on the Wall	3) Department of Electrophysics, National Yang Ming Chiao Tung University, Hsinchu, Taiwan	3-I-A-02
11-Jul	9:20	9:40	I	A		Mr. Shotaro Danjo	In Situ Synchrotron X-ray Diffraction Investigation of ZIF-8 Particle Formation in Water/methanol Mixtures	1) Institute of Materials Science and Engineering, National Taipei University of Technology, Taipei, Taiwan	3-I-A-03
11-Jul	9:40	10:00	I	A		Dr. Paul Kinyanjui Kimani	Deep Eutectic Solvent-Mediated Growth of Metal-Organic Frameworks on Metal-Crosslinked Biopolymer Hydrogels	P. K. Kimani*1 C. Takai-Yamashita 1,2 1 Faculty of Engineering, Gifu University, Japan 2 Institute of Multidisciplinary Research for Advanced Materials, Tohoku University, Japan	3-I-A-04

11-Jul 10:00 11:40 I Session A Session chair Wei-Hsing Tuan (National Taiwan University, Taiwan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
11-Jul	10:00	10:30	I	A	○	Prof. Yansong Shen	Modelling of reacting flow: speed vs. resolution	Yansong Shen	3-I-A-05
11-Jul	10:30	10:50	I	A		Dr. Yuting Zhuo	Numerical Study of Electrolyser and Hydrogen Storage Design and Optimisation	Yuting Zhuo*, Yansong Shen School of Chemical Engineering, University of New South Wales, Sydney, New South Wales 2052, Australia	3-I-A-06
11-Jul	10:50	11:10	I	A		Mr. Harvey Dumol Melendrez	Functionalization, Interfacial Transition, and Surface Modification of Acid-Treated Philippine Coal Fly Ash via Mechanochemical Treatment	H. Melendrez1,2,3, K. Tsukigi4, G.R. Maujon1,3, V.J. Resabal2,3, M. Fuji4, R. Rivera-Virtudazo1,3 1 Advanced Porous Ceramic Particles (APCerP) Lab., Ceramic Researches for Engineering Advanced Technology & Environment (CREATE) Lab, Research Center for Advanced Ceramics (RCAC), Research Institute for Engineering and Innovative Technology (RIEIT), Mindanao State University – Iligan Institute of Technology, Iligan City 9200, Philippines 2 Resources Processing and Technology Center, Research Institute for Engineering and Innovative Technology (RIEIT), Mindanao State University – Iligan Institute of Technology, Iligan City 9200, Philippines 3 Department of Materials and Resources Engineering and Technology, College of Engineering and Technology, Mindanao State University – Iligan Institute of Technology, Iligan City 9200, Philippines 4 Advanced Ceramics Research Center, Nagoya Institute of Technology, Honmachi3-101-1, Tajimi, Gifu, 507-0033, Japan	3-I-A-07
11-Jul	11:10	11:40	I	A	○	Prof. Junichi Tatami	Internal structure changes of ceramic slurry observed by optical coherence tomography	J. Tatami*1, M. Nakamura1, M. Iijima1, T. Takahashi1,2 1 Yokohama National University, Japan 2 Kanagawa Institute of Industrial Science and Technology, Japan	3-I-A-08
11-Jul	11:40	13:00	I			Lunch	Lunch		

11-Jul 8:30 10:20 II Session D Session chair Yoshio Sakka (National Institute for Materials Science, Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
11-Jul	8:30	9:00	II	D	○	Prof. Jingyang Wang	Progress of high temperature coatings for SiCf/SiC composites	Jingyang Wang*1, 2 1 Institute of Metal Research, Chinese Academy of Sciences, China 2 Liaoning Academy of Materials, China	3-II-D-01
11-Jul	9:00	9:30	II	D	○	Prof. Shaoming Dong	Progress of continuous fiber reinforced ceramic matrix composites	Shaoming Dong*, Dewei Ni, Jianbao Hu, Xihai Jin Structural Ceramics and Composites Engineering Research Center, Shanghai Institute of Ceramics, Chinese Academy of Sciences, Shanghai, China	3-II-D-02
11-Jul	9:30	10:00	II	D	○	Prof. Jie Zhang	High-throughput Design of Environmental Barrier Coating Materials with Co-doping Rare-earth Elements	1 Shenyang National Laboratory for Materials Science, Institute of Metal Research, Chinese Academy of Sciences, Shenyang 110016, China 2 School of Materials Science and Engineering, University of Science and Technology of China, Hefei 230026, China	3-II-D-03
11-Jul	10:00	10:20	II	D		Dr. Feiyan Cai Cai	Fabrication and Properties of Cf/(Ti0.2Zr0.2Hf0.2Nb0.2Ta0.2)C-SiC High-entropy Ceramic Matrix Composites	Feiyan Cai1,2, Dewei Ni1,2,*, Shaoming Dong1,2,* 1 State Key Laboratory of High Performance Ceramics & Superfine Microstructure, Shanghai Institute of Ceramics, Chinese Academy of Sciences, Shanghai 200050, China 2 Structural Ceramics and Composites Engineering Research Center, Shanghai Institute of Ceramics, Chinese Academy of Sciences, Shanghai 200050, China	3-II-D-04

11-Jul 10:20 12:00 II Session D Session chair Jingyang Wang (Institute of Metal Research, Chinese Academy of Sciences, China)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
11-Jul	10:20	10:40	II	D		Dr. Jie Li	Preparation, microstructure and CMAS corrosion of Y3Al5O12/Al2O3 eutectic coatings deposited by atmospheric plasma spraying	Jie Li* 1,2, Luchao Sun 1, Jingyang Wang 1 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	3-II-D-05
11-Jul	10:40	11:00	II	D		Prof. Luchao Sun	Microstructure and properties of directionally solidified Garnet/Al2O3 eutectic ceramics: Insights of high entropy design	Luchao Sun 1,*, Jingyang Wang 1 1 Institute of Metal Research, Chinese Academy of Sciences, China	3-II-D-06
11-Jul	11:00	11:20	II	D		Dr. Li Tian	Multifunctional Hierarchical Metamaterial for Thermal Insulation and Electromagnetic Interference Shielding at Elevated Temperatures	Li Tian*, Jinshan Yang, Shaoming Dong Shanghai Institute of Ceramics, Chinese Academy of Sciences	3-II-D-07
11-Jul	11:20	11:40	II	D		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	3-II-D-08
11-Jul	11:40	12:00	II	D		Mr. Ganggy Lee	Mitigating Galvanic Corrosion in Cu/Ru Interfaces through Selective Surface Interactions	Ganggyu Lee1)*, Joonhyeok Park1), Jaeik Kim1), Insung Hwang1), Jiwoon Kim1), Minsung Kim1), Seungmin Han1), Jooheon Sun1), Soomin Hong1), Taeseup Song1),2), Ungyu Paik1) 1) Department of Energy Engineering, Hanyang University, Republic of Korea 2) Department of Department of Battery Engineering, Hanyang University, Republic of Korea	3-II-D-09
11-Jul	12:00	13:00	II			Lunch	Lunch		

11-Jul 8:30 10:00 II Session B Session chair Satoshi Tanaka (Nagaoka University of Technology, Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
11-Jul	8:30	9:00	III	B	○	Prof. Shoji Maruo	Multi-material Microstereolithography using Various Materials	Shoji Maruo*1 1 Faculty of Engineering, Yokohama National University, Japan	3-III-B-01
11-Jul	9:00	9:30	III	B	○	Dr. Hui-suk Yun	How to Overcome Transparency Limitations in 3D Printed Ceramics	Hui-suk Yun* Korea Institute of Materials Science, Korea	3-III-B-02
11-Jul	9:30	10:00	III	B	○	Dr. Steven Mullens	Coatings and surface modification on 3D-printed architectures	Steven Mullens*1, Janne Gys1,2, David Vogelsang1, Vera Meynen2 1) Flemish Institute for Technological Research, Mol, Belgium 2) University Antwerp, Antwerp, Belgium	3-III-B-03

11-Jul 10:00 11:10 II Session B Session chair Steven Mullens (Flemish Institute for Technological Research, Belgium)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
11-Jul	10:00	10:30	III	B	○	Prof. Wei Ji	Densification, microstructure and properties of advanced ceramics from ultra-fine ceramic powders under ultrahigh pressure	Wei Ji1, Zhengyi FU1 1State Key Laboratory of Advanced Technology for Materials Synthesis and Processing, Wuhan University of Technology, Wuhan, China	3-III-B-04
11-Jul	10:30	10:50	III	B		Prof. Kevin Paul Plucknett	Wear Response of Al2O3 Ceramics Produced Using Digital Light Projection Additive Manufacturing	Achilles M. David1, Galina Boubnova1, Shannon Clemens1, and Kevin P. Plucknett*1 1. Dalhousie University, Department of Mechanical Engineering, 1360 Barrington Street, Halifax, NS, B 3 H 4R2, CANADA.	3-III-B-05
11-Jul	10:50	11:10	III	B		Ms. Sihan Feng	(NH4)xMF3+x ammonium fluorometallates (x = 1, 3): solvothermal synthesis, thermolysis and derivation of MF3 for near-infrared luminescence	Sihan Feng,1,*Yun Wang,1 Qi Zhu,1 Ji-Guang Li2 1Key Laboratory for Anisotropy and Texture of Materials, School of Materials Science and Engineering, Northeastern University, Shenyang, Liaoning 110819, China 2Research Center for Electronic and Optical Materials, National Institute for Materials Science, Tsukuba, Ibaraki 305-0044, Japan	3-III-B-06
11-Jul	11:10	11:30	III	B		Ms. Jui Chi Lin	Innovative Liquid Metal-Assisted Synthesis of Bimetallic MOFs toward Advanced Photodetector Applications	Jui Chi Lin 1, Chun Wei Huang 1 1 Department of Materials Science and Engineering, Feng Chia University, Taiwan	3-III-B-07
11-Jul	11:30	13:00	III			Lunch	Lunch		

11-Jul 8:30 10:00 IV Session C Session chair Takuma Takahashi (Kanagawa Institute of Industrial Science and Technology, Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
11-Jul	8:30	9:00	IV	C	○	Prof. Norifumi Isu	Antibacterial Ceramics Using Ag and Future Tasks of Antibacterial Test Method	Norifumi Isu*1 1 Shinshu University, Japan	3-IV-C-01
11-Jul	9:00	9:30	IV	C	○	Dr. Jintawat Chaichanawong	Development of Biocoke from Industrial By-products	Center of Research Excellence in Material Engineering and BCG Economy, Faculty of Engineering, Thai-Nichi Institute of Technology, Thailand	3-IV-C-02
11-Jul	9:30	10:00	IV	C	○	Prof. Dumitru Nedelcu	Biodegradable Materials Coated Ceramic Particles	Alina Mărguță, Simona – Nicoleta Mazurchevici, Bogdan Istrate, Ciprian Ciofu, Dumitru Nedelcu* “Gheorghe Asachi” Technical University of Iasi	3-IV-C-03

11-Jul10:0011:00 IVSession CSession chairKoji Morita (National Institute for Materials Science, Japan)

Day	Start	End	Room	Session	Invited	Presenter	Title	Information	Presentation number
11-Jul	10:00	10:20	IV	C		Mr. Hung Chun Chiang	Chemical Recycling Development of Poly(ethyleneterephthalate) by Glycolysis and Cooling Crystallization with Water	Chun-Hung Chiang1, Yu-Kun Peng1, Hung Lin Lee1,2, Dhanang Edy Pratama1, Tu Lee*1 1 Department of Chemical and Materials Engineering, National Central University, Taoyuan City 320317, Taiwan R.O.C. 2 Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139, United States	3-IV-C-04
11-Jul	10:20	10:40	IV	C		Prof. Yuping Zeng	Fabrication and mechanical properties of porous Si3N4 ceramics prepared via SHS	Yu-Ping Zeng, State Key Laboratory of High Performance Ceramics and Superfine Microstructure, Shanghai Institute of Ceramics, Chinese Academy of Sciences	3-IV-C-05
11-Jul	10:40	11:00	IV	C		Dr. Takuma Takahashi	Mesoscale Mechanical Property Changes in 3 mol% Ytria-Stabilized Zirconia Near the Surface under Hydrothermal Conditions	T. Takahashi*1, K. Niregi1, T. Yahagi1, T. Ohji2, J. Tatami2 1 Kanagawa Institute of Industrial Science and Technology, Japan 2 Yokohama National University, Japan	3-IV-C-06
11-Jul	11:00	13:00	IV			Lunch	Lunch		