

Sunday Session 11/6 PM

New Technology Development Forum		
	Title	Authors
15:00	[Su-T-1] Pultrusion of continuous fiber reinforced thermoplastic composite of shaped member	<a href="#">Masaki Ohishi</a> (Satoh Machinery Works), Asami Nakai (Gifu University)
	[Su-T-2] Gas barrier resin as matrix resin for composite containers and high-pressure vessels	<a href="#">Nobuhiko Matsumoto</a> , Kosuke Ikeuchi, Daiki Wakahara, Nobuyoshi Ohnishi (Mitsubishi Gas Chemical Co. Inc.)
	[Su-T-3] Zirconia attracting attention as a biomaterial: mechanical properties, bioactivity, and cell growth and proliferation	<a href="#">Hikaru Muto</a> , Soichi Masaki (Adamant Namiki Precision Jewel Co., Ltd.)
	[Su-T-4] Prepreg yarns for textile thermoplastic CFRP	<a href="#">Toshihiro Motochika</a> , Keisuke Ide (Kajirene Inc.)
17:00	Session Closed	

Monday Session 11/7 AM

8:30				
8:50	Opening Remarks			
9:00	<b>Plenary Lecture</b> <b>Development of Innovative Ti Alloy Compacts through Powder Metallurgy</b> by Prof. Hideshi Miura (Kyushu University) Chair: Yukio Miyashita (Nagaoka University of Technology)			
10:00 -10:20	Tea & Coffee Break			
	Room A	Room B	Room C	Room D
	<b>Cell Mechanics and Biomaterials 1</b> Chair: Yuichi Otsuka (Nagaoka University of Technology)	<b>Ceramics and Ceramic Matrix Composites 1</b> Chair: Katsumi Yoshida (Tokyo Institute of Technology)	<b>Surface Modification for Tribo Materials 1</b> Chair: Hatsuhiko Usami (Meijo University)	<b>Measurement Techniques and Nondestructive Evaluations for Materials, Structures and Processing 1</b> Chair: Akihiro Wada (Osaka Sangyo University)
10:20	Keynote Speech <b>[Mo-1A-1] Flexible cell culture substrates to regulate cellular processes</b> by <u>Tomoko G. Oyama</u> , Kotaro Oyama (National Institutes for Quantum Science and Technology (QST)), Hiromi Miyoshi (Tokyo Metropolitan University), Mitsumasa Taguchi (QST)	<b>[Mo-1B-1] Morphology of subsurface cracks induced by Vickers indentation observed by synchrotron X-ray multiscale tomography: a case study of CaO-Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub> glass-ceramic</b> <u>Gaku Okuma</u> (NIMS), Kei Maeda (Tokyo University of Science), Satoshi Yoshida (AGC Inc), Fumihiro Wakai (NIMS)	<b>[Mo-1C-1] Effects of Phosphorus on Friction Surface in Sulfide Dispersed Bronze</b> <u>Kenta Goto</u> , Tomohiro Sato, Ken-ichi Saitoh, Masanori Takuma, Yoshimasa Takahashi (Kansai University)	<b>[Mo-1D-1] Determination of anisotropic elastic constants of additively manufactured Ti-6Al-4V alloys based on genetic-algorithm-assisted resonant ultrasound spectroscopy</b> <u>Shuma Yuki</u> , Yuto Sauda, Masayoshi Mizutani, Go Yamamoto (Tohoku University)
10:40		<b>[Mo-1B-2] Elucidation of defect formation process in polycrystalline ceramics and simulation of fracture stress</b> <u>Haruki Minagawa</u> (Tokyo University of Science), Gaku Okuma (NIMS), Satoshi Tanaka (Nagaoka University of Technology), Hideki Kakisawa, Fumihiro Wakai (NIMS), Yutaro Arai, Ryo Inoue (Tokyo University of Science)	<b>[Mo-1C-2] Simultaneous Measurement of Corrosion and Wear Resistance Characteristics in Stainless Steel Modified by Frictional Reforming under Fretting Condition in Seawater</b> <u>Kousuke Kinoshita</u> , Toshikazu Fujino, Tatsuhiro Jibiki, Kento Takahashi (Tokyo University of Marine Science and Technology)	<b>[Mo-1D-2] Evaluation of adhesive bonding condition of adhesives by surface roughness using AE method</b> <u>Taisei Banno</u> , Takuma Matsuo (Meiji University)
11:00	Keynote Speech <b>[Mo-1A-2] Understanding The Mechano-Regulation of Substrate Stiffness On Rejuvenation Mechanism Of Aging Stem Cells</b> by <u>Thasaneeya Kuboki</u> , Satoru Kidoaki (Kyushu University)	<b>[Mo-1B-3] Mechanical erosion resistance and heat transfer analysis of C/UHTCMC by arc wind tunnel</b> <u>Noriatsu Koide</u> , Tomoki Marumo, Yutaro Arai, Ryo Inoue (Tokyo University of Science)	<b>[Mo-1C-3] Evaluation of mechanical properties of metal sulfide dispersion composites</b> <u>Kazuyoshi Ono</u> , Tomohiro Sato, Ken-ichi Saitoh, Masanori Takuma, Yoshimasa Takahashi (Kansai University)	<b>[Mo-1D-3] On the Use of Shear Waves to Improve Accuracy in Ultrasonic Thermometry for Measuring Internal Temperatures of Heated Materials</b> <u>Shinji Wada</u> , Ikuo Ihara (Nagaoka University of Technology)
11:20		<b>[Mo-1B-4] Analysis of wetting and infiltration phenomena at the interface between molten metal and ceramics</b> <u>Takeo Koizumi</u> , Daichi Matsubara, Yutaro Arai (Tokyo University of Science), Takuya Aoki (JAXA), Ryo Inoue (Tokyo University of Science)	<b>[Mo-1C-4] Effect of surface texture pattern on friction anisotropy under insufficient lubrication</b> <u>Atsuta Harada</u> , Kaisei Sato, Shinya Sasaki (Tokyo University of Science)	<b>[Mo-1D-4] Defect Detection in Concrete Structures at High Place by Using Water Jet Impact</b> Saeko Tokuomi, <u>Kazuya Mori</u> , Yasutaka Ohshima, Kosei Kawachi (Kumamoto University)
11:40	<b>[Mo-1A-3] Effect of In Vitro Condition on Mechanical Properties of Calcium Phosphate-Alumina Ceramic Composite Porous Scaffolds</b> <u>Yu Zusho</u> , Hiromi Miyoshi, Naoya Sakamoto, Satoshi Kobayashi (Tokyo Metropolitan University)	<b>[Mo-1B-5] Mechanical properties of oxide/oxide composites with various oxide matrices</b> Tomohiro Kubo, Taiga Sugawara, <u>Yutaro Arai</u> , Yasuo Kogo (Tokyo University of Science)	<b>[Mo-1C-5] Improvement of thermoelectric performance of mechanochemical manufactured Bi<sub>2</sub>S<sub>3</sub> -experimental and simulation studies-</b> <u>Masahiro Tanaka</u> , Tomohiro Sato, Ken-ichi Saitoh, Masanori Takuma, Yoshimasa Takahashi (Kansai University)	<b>[Mo-1D-5] Development of Pulse Transducer for Impact-Echo Method</b> <u>Kazuya Mori</u> , Akira Koishi, Saeko Tokuomi, Yasutaka Ohshima, Taku Matsuzawa (Kumamoto University)
12:00 -13:20	Lunch Break			

Monday Session 11/7 PM(1)

	Room A	Room B	Room C	Room D
	<p><b>Cell Mechanics and Biomaterials 2</b> Chair: Hiromi Miyoshi (Tokyo Metropolitan University)</p>	<p><b>Ceramics and Ceramic Matrix Composites 2</b> Chair: Ryo Inoue (Tokyo University of Science)</p>	<p><b>Surface Modification for Tribo Materials 2</b> Chair: Akinobu Yamashita (IHI)</p>	<p><b>Measurement Techniques and Nondestructive Evaluations for Materials, Structures and Processing 2</b> Chair: Takuma Matsuo (Meiji University)</p>
13:20	<p><b>Keynote Speech</b> <b>[Mo-2A-1] Development of PVA Hydrogels for Artificial Cartilage with Superior Lubricity</b> by <u>Seido Yarimitsu</u>, Yoshinori Sawae (Kyushu University)</p>	<p><b>[Mo-2B-1] Mechanical Properties of SiCf/SiC Composites with h-BN Interphase Formed by Electrophoretic Deposition Method Using Flaked h-BN Particles</b> <u>Katsumi Yoshida</u>, Mayuko Kasakura, Anna V. Gubarevich (Tokyo Institute of Technology), Masaki Kotani (JAXA)</p>	<p><b>[Mo-2C-1] Experimental and Numerical Studies on Residual Stress Generation during Laser Cladding</b> <u>Taisei Izumi</u>, Tatsuo Suidu (TOCALO Co.,Ltd.), Masayuki Arai (Tokyo University of Science)</p>	<p><b>[Mo-2D-1] Reliability evaluation of Heavy-duty offload equipment parts for Remanufacturing</b> <u>Tomohisa Kanazawa</u>, Mistuhiro Yoshimoto (Hitachi Construction Machinery Co., Ltd.), Masao Hayakawa (NIMS)</p>
13:40		<p><b>[Mo-2B-2] Corrosion behavior of Al<sub>4</sub>SiC<sub>4</sub>-Based Ceramics with Molten CMAS at 1350°C in Ar</b> <u>Atsuko Tanaka</u>, Anna V. Gubarevich (Tokyo Institute of Technology), Toshiyuki Nishimura (National Institute for Materials Science), Katsumi Yoshida (Tokyo Institute of Technology)</p>	<p><b>[Mo-2C-2] Peridynamics on Surface Modified SiO<sub>2</sub> based Ceramics</b> <u>Shintaro Satake</u>, Tomohiro Sato, Ken-ichi Saitoh, Masanori Takuma, Yoshimasa Takahashi (Kansai University)</p>	<p><b>[Mo-2D-2] Evaluation of Mechanical and Antibacterial Properties of Cu-DLC Composite Films</b> <u>Yucheng Li</u>, Chiaki Koga, Yuki Hirata, Hiroki Akasaka (Tokyo Institute of Technology), Hiroyasu Kanetaka (Tohoku University), Naoto Ohtake (Tokyo Institute of Technology)</p>
14:00	<p><b>[Mo-2A-2] The effects of shear stress by AFM tip on the elastic modulus of endothelial cells</b> <u>Haruto Gato</u>, Kaisei Sato, Shinya Sasaki (Tokyo University of Science)</p>	<p><b>[Mo-2B-3] Experimental Approach to the Mixed Mode Crack Extension in Ceramics under Thermal Shock</b> <u>Yasutaka Nakamura</u>, Shuichi Wakayama (Tokyo Metropolitan University)</p>	<p><b>[Mo-2C-3] Design Guidelines of Surface Texturing to Improve the Lubrication Characteristics under Reciprocating Motion</b> <u>Tetsuta Matsumura</u>, Toshikazu Fujino, Tatsuhiro Jibiki, Katsumi Iwamoto (Tokyo University of Marine Science and Technology), Masaki Oda (National Institute of Technology, Toba College)</p>	<p><b>[Mo-2D-3] Development of Cuckoo Optimization Algorithm for Crack Identification in Structure</b> <u>Kazuma Takezawa</u>, Yuji Kano, Masayuki Arai (Tokyo University of Science)</p>
14:20	<p><b>[Mo-2A-3] Effects of hyaluronic acid on friction property and hydration layer thickness of contact lens surface by visualizing interfacial structure of contact lens</b> <u>Ayaka Nakajima</u>, Kaisei Sato, Shinya Sasaki (Tokyo University of Science)</p>	<p><b>[Mo-2B-4] Characterization of Microdamage Process and Contribution to Degradation of Flexible Solar Cells under Biaxial Tensile Loading using AE and LT</b> <u>Yusuke Takabayashi</u>, Shuichi Wakayama (Tokyo Metropolitan University), Akihiro Takano, Kosuke Nakahara (F-WAVE Co., Ltd.)</p>	<p><b>[Mo-2C-4] Analysis of sulfide dispersed bronze microstructure by machine learning</b> <u>Atsushi Wakai</u>, Tomohiro Sato, Ken-ichi Saitoh, Masanori Takuma, Yoshimasa Takahashi (Kansai University)</p>	<p><b>[Mo-2D-4] Temperature Estimation Method for Sliding Surface in Roller Pitting Fatigue Test</b> <u>Mikihisa Nakano</u>, Yoshihiro Mizutani (Tokyo Institute of Technology), Kentaro Yamada, Yukio Tamura, Hiroshi Yamamoto (Komatsu Ltd.)</p>
14:40		<p><b>[Mo-2B-5] Characterization of the power-law creep deformation in a visco-elastoplastic solid using point-sharp indentation-load relaxation simulated with the finite-element method</b> <u>Takashi Akatsu</u> (Saga University), Yoshihiro Akimoto (Tokyo Institute of Technology), Yutaka Shinoda (National Institute of Technology, Ube College), Fumihiko Wakai (Tokyo Institute of Technology)</p>	<p><b>[Mo-2C-5] Tribological properties of Sn-Zn coating in rolling/sliding contact</b> <u>Hatsuhiko Usami</u>, Takumi Mohri (Meijo University)</p>	
15:00 -15:20	Tea & Coffee Break			

Monday Session 11/7 PM(2)

	Room A	Room B	Room C	Room D
	<p><b>Polymer Matrix Composites 1</b> Chair: Shigeki Yashiro (Kyushu University)</p>	<p><b>Formation and Application of Carbon-based Materials</b> Chair: Hiroki Akasaka (Tokyo Institute of Technology)</p>	<p><b>Evaluation of Interfacial Strength in Dissimilar Materials Joint + Track 3 General Session</b> Chair: Yohei Kurabe (National Institute of Technology, Ishikawa College)</p>	<p><b>Thin and Thick Coatings and Its Various Properties</b> Chair: Kazuhiro Ogawa (Tohoku University)</p>
15:20	<p><b>[Mo-3A-1] Effect of Mesh Interlayers on Damage Behavior of Angle-plyed CFRP Laminates under Post-impact Fatigue</b> <u>Yuika Sakamoto</u>, Hayato Nakatani (Osaka City University)</p>	<p><b>[Mo-3B-1] Low friction properties of Ni-deposited ta-C films in the presence of MoDTC and structural analysis of the reaction film</b> <u>Mashiro Suzuki</u>, Yutaka Mabuchi, Masashi Takura (Utsunomiya University), Tsuyoshi Higuchi, Hideki Masuo (Nissan Motor Co., Ltd.), Sawa Araki (Nissan ARC, LTD.)</p>	<p><b>[Mo-3C-1] Fundamental study on Mode-II crack propagation control of adhesive joints by convex micro structure on adherend surface</b> <u>Mion Horikawa</u> (Tokyo Institute of Technology), Tetsuo Yasuoka (JAXA), Yoshihiro Mizutani (Tokyo Institute of Technology)</p>	<p><b>[Mo-3D-1] Effect of Thermal Spraying Method and Sprayed Material on Creep Properties of MCrAlY Coating</b> <u>Junya Omaru</u>, Masayuki Arai (Tokyo University of Science), Kiyohiro Ito (Suwa University of Science), Tatsuo Suidzu (Tocalo Co., Ltd.)</p>
15:40	<p><b>[Mo-3A-2] Experimental and numerical evaluation of cracking behavior in cross-ply CFRP laminates initiated from micro defect</b> <u>Sota Oshima</u> (Tokyo Metropolitan University), Ryo Higuchi (The University of Tokyo), Satoshi Kobayashi (Tokyo Metropolitan University)</p>	<p><b>[Mo-3B-2] Production of high quality graphene by wet media milling and its application to epoxy nanocomposites</b> <u>Yugo Terakado</u>, Yoshihiko Arao (Waseda University)</p>	<p><b>[Mo-3C-2] Stacking Sequence Optimization Method for Damage Tolerant Composite Overwrapped Pressure Vessel</b> <u>Takanori Sugiyama</u>, Yoshihiro Mizutani (Tokyo Institute of Technology),</p>	<p><b>[Mo-3D-2] Effect of microstructure on thermal fatigue life of a suspension plasma sprayed thermal barrier coating with columnar structure</b> <u>Yasuhiro Yamazaki</u>, Keisuke Shinomiya (Chiba University)</p>
16:00	<p><b>[Mo-3A-3] Fracture Process of Adhesive Joint of CFRP under Mode I and Mode II Impact Loading</b> <u>Yuki Aratama</u>, Akinori Yoshimura, Masahiro Arai, Keita Goto (Nagoya University)</p>	<p><b>[Mo-3B-3] Synthesis of VA CNTs/PDMS Composite to Control Surface Lateral Stiffness for Cell Differentiation</b> <u>Alfi E. Putra</u>, Ming Yang (Tokyo Metropolitan University)</p>	<p><b>[Mo-3C-3] Phase Field Simulation of ECM phenomena caused by volcanic ash deposited on electronic devices</b> <u>Takuva Ino</u>, Masayuki Arai (Tokyo University of Science)</p>	<p><b>[Mo-3D-3] Bonding behavior of low-pressure cold-sprayed particles deposited on the low-temperature plasma-treated substrate</b> <u>Hiroki Saito</u>, Yuji Ichikawa, Kazuhiro Ogawa (Tohoku University)</p>
16:20	<p><b>[Mo-3A-4] Experimental studies on the translaminal fracture toughness of CFRP laminates</b> <u>Liang Jing Gooj</u>, Kosuke Ito, Tomoisa Mikami, Toshio Ogasawara (Tokyo University of Agriculture and Technology), Sota Oshima (Tokyo Metropolitan University)</p>	<p><b>[Mo-3B-4] Study on tribological properties of polymer composite layer dispersed with onion-like carbon</b> <u>Ryuuya Okamoto</u> (Meijo University), Takeshi Nogami, Kiyofumi Suzuki (PALACE CHEMICAL CO.LTD.), Kazuki Enomoto (Meijo University)</p>	<p><b>[Mo-3C-4] Inspection of groove defects in friction stir welds by an embedded force sensor in the backing plate</b> <u>Takahiro Ohashi</u>, Hamed Mofidi-Tabatabaei, Tadashi Nishihara (Kokushikan University)</p>	<p><b>[Mo-3D-4] Influence of Micro-Forging Particle on Al Alloy Coating Structure via an in-situ MF Cold Spray with Simultaneous Injection of Powder form Axial / Radial Directions of Nozzle</b> <u>Kazuhiko Sakaki</u>, Chihaya Saito, Seiya Fujimori (Shinshu University)</p>
16:40	<p><b>[Mo-3A-5] Ultrasonic welding behavior of woven-CF/PPS laminates by using carbon nanotube added energy director</b> <u>Soma Nishimura</u>, Daiki Tanabe (Kobe City College of Technology), Kazuaki Nishiyabu (Kindai University)</p>		<p><b>[Mo-3C-5] Proposal for controlling method of joint strength in dissimilar materials joint thin plate produced by friction stir welding followed by rolling</b> <u>Yukio Miyashita</u>, Towa Maeda, Shinya Fujimoto (Nagaoka University of Technology), Hisashi Hori (Nippon Light metal Co. Ltd)</p>	<p><b>[Mo-3D-5] The Effect of Addition Ratio of Phosphorus Based Extreme Pressure Agent and Calcium Based Detergent on Tribofilm Formation</b> <u>Sho Watanabe</u>, Yu Nito, Kaisei Sato, Shinya Sasaki (Tokyo University of Science)</p>
17:00 -17:20	Tea & Coffee Break			
17:20	<p><b>Plenary Lecture</b>  <b>The high-pressure force-network technology – an example of the research-based invention</b>                      by Prof. Igor Emri (University of Ljubljana)                      Chair: Takenobu Sakai (Saitama University)</p>			
18:20	Session Closed			

Tuesday Session 11/8 AM(1)

	Room A	Room B	Room C	Room D
	<p><b>Polymer Matrix Composites 2</b> Chair: Sota Oshima (Tokyo Metropolitan University)</p>	<p><b>3D and Micro-nano Processing and Materials</b> Chair: Junpei Sakurai (Nagoya University)</p>	<p><b>Processing Advanced Casting and Semi-solid Forming + Track 2 General Session 1</b> Chairs: Shinichi Nishida (Gunma University) / Toshio Haga (Osaka Institute of Technology)</p>	<p><b>Measurement Techniques and Nondestructive Evaluations for Materials, Structures and Processing 3</b> Chair: Kazuya Mori (Kumamoto University)</p>
9:00	<p><b>[Tu-1A-1] Damage Progressive Analysis of CFRP Laminates Containing an Overlap</b> <u>Sota Onodera</u>, Koki Kawahara, Shigeki Yashiro (Kyushu University)</p>	<p><b>[Tu-1B-1] Self-standing deformation process for microprobes</b> <u>Reo Nagai</u>, Takuya Onishi, Chiemi Oka, Junpei Sakurai, Seiichi Hata (Nagoya University)</p>	<p><b>[Tu-1C-1] Semi Solid Forging of Magnesium alloys with high Aluminum Content</b> <u>Shuji Okubo</u>, Shun Yasuhara, Inomi Isobe, Shun Shiota, Shinichi Nishida (Gunma University)</p>	<p><b>[Tu-1D-1] Ultrasonic monitoring of resin impregnation in resin transfer molding based on reflected wave analysis</b> <u>Riku Aoki</u>, Akihiro Wada (Osaka Sangyo University), Kazuyoshi Waseda (Kobe City College of Technology)</p>
9:20	<p><b>[Tu-1A-2] Measurement and analytical prediction of local mechanical properties in CFRP laminate with ply discontinuity</b> <u>M. J. Mohammad Fikry</u> (Tokyo University of Science), Vladimir Vinogradov (Newcastle University), Shinji Ogihara (Tokyo University of Science)</p>	<p><b>[Tu-1B-2] Custom-shaped cellular micropatterning on a substrate using ultraviolet lithography</b> <u>Yulin Xiong</u>, Seiji Omata, Teppei Osumi, Yasuyuki Morita (Kumamoto University)</p>	<p><b>[Tu-1C-2] Study on Semi-Solid Forging of Magnesium Alloys</b> <u>Shuji Furuta</u>, Tatsuya Tanaka, Masahiro Sasada (Doshisha University), Shinichi Nishida, Inomi Isobe (Gunma University)</p>	<p><b>[Tu-1D-2] Development of process monitoring technique for FRP by VaRTM using a multi-functional sensing system made by optical fiber sensors</b> <u>Genko Fujioka</u>, Tatsuro Kosaka (Kochi University of Technology)</p>
9:40	<p><b>[Tu-1A-3] Tensile Strength Prediction of Unidirectional Carbon Fiber Reinforced Plastics Prepared with Polyacrylonitrile (PAN)-Based Carbon Fibers with Different Mechanical Properties</b> <u>Kenta Oshima</u> (Tohoku University), Jun Watanabe, Haruki Okuda, Fumihiko Tanaka (Toray Industries, Inc.), Go Yamamoto (Tohoku University)</p>	<p><b>[Tu-1B-3] Shape Formation Process Modeling of Hyper-thermal Atomic Oxygen beam Fabricated Surfaces</b> <u>Keiichi Yanagase</u>, Eiji Miyazaki, Aki Goto, Miki Nishimoto (JAXA)</p>	<p><b>[Tu-1C-3] Production of Thin Sheets of Iron Alloy by Vertical Twin-Roll Casting</b> <u>Shun Yasuhara</u>, Shuji Okubo, Hisamichi Ono, Hayato Ueno, Shinichi Nishida (Gunma University)</p>	<p><b>[Tu-1D-3] Effect of annealing on the ultrasonic sensitivity of fiber Bragg grating sensors</b> <u>Zixuan Li</u>, Fengming Yu, Osamu Saito, Yoji Okabe (The University of Tokyo)</p>
10:00	<p><b>[Tu-1A-4] Possibility of Deformation Evaluation by Thermal Properties of Polymer</b> <u>Takenobu Sakai</u> (Saitama University), Yutaka Oya, Jun Koyanagi (Tokyo University of Science)</p>	<p><b>[Tu-1B-4] Influence of temperature distribution on nickel deposits by laser-enhanced electroless plating using pulsed laser</b> <u>Tsune-hisa Suzuki</u>, Shotaro Uwano, Tatsuya Fujii, Mitsuyoshi Nomura, Kenji Goya, Ryo Ito (Akita Prefectural University)</p>	<p><b>[Tu-1C-4] Development of a multi-nozzle 3D printing system for metal-ceramics composite structures</b> <u>Kazuhiro Yamada</u>, Fujio Tsumori (Kyushu University)</p>	<p><b>[Tu-1D-4] Effect of Design Parameters of High-Sensitive EPFI Strain Sensor on Its Measurement Accuracy</b> <u>Tatsuro Kosaka</u>, Akiko Itaya (Kochi University of Technology), Yoneta Tanaka (Adtec Engineering)</p>
10:20 -10:40	Tea & Coffee Break			

Tuesday Session 11/8 AM(2)

	Room A	Room B	Room C	Room D
	<p><b>Polymer Matrix Composites 3</b> Chair: Shinji Ogihara (Tokyo University of Science)</p>	<p><b>Advanced Structural/Functional Materials + Track 1 General Session</b> Chair: Hayato Nakatani (Osaka Metropolitan University)</p>	<p><b>Track 2 General Session 2</b> Chairs: Shinichi Nishida (Gunma University) / Toshio Haga (Osaka Institute of Technology)</p>	<p><b>Measurement Techniques and Nondestructive Evaluations for Materials, Structures and Processing 4</b> Chair: Tatsuro Kosaka (Kochi University of Technology)</p>
10:40	<p><b>Keynote Speech</b> <b>An integrated methodology for fatigue life prediction of notched carbon fiber-reinforced polymer matrix composites under constant and random R-ratio loadings</b> by Prof. Masamichi Kawai (University of Tsukuba)</p>	<p><b>[Tu-2B-1] Formation of long Al and Fe whiskers by using stress-induced migration</b> Thomas H. Ludwig, Hironori Tohmoyoh (Tohoku University)</p>	<p><b>[Tu-2C-1] Effect of post-spray heat treatment on the bonding strength and microstructure of cold sprayed PFA coating</b> Yuxian Meng, Hiroki Saito, Chrystelle A. Bernard, Yuji Ichikawa, Kazuhiro Ogawa (Tohoku University)</p>	<p><b>[Tu-2D-1] A Simple Approach to Identifying Shape of Delamination by Visualization of Lamb Wave Propagation via Laser Scanning Systems</b> Kazuki Ryuzono, Shigeki Yashiro, Sota Onodera (Kyushu University), Nobuyuki Toyama (AIST)</p>
11:00		<p><b>[Tu-2B-2] Self-Repair of Titanium Carbide/Alumina Composites by Heat-Treatment and Laser Processing</b> Son T. Nguyen, Tsuyoshi Takahashi (National Institute of Technology - Kushiro College), Tadachika Nakayama (Nagaoka University of Technology)</p>	<p><b>[Tu-2C-2] Incremental Forming of Tailored Blanks of A1050 Aluminum with Dissimilar Thickness Prepared by Bobbin Tool Friction Stir Welding</b> Masaaki Otsu, Keita Hasegawa (University of Fukui), Takuya Miura (Osaka University)</p>	<p><b>[Tu-2D-2] Theoretical Analysis on Scattering of Lamb Waves at Impact Damage in Quasi-isotropic CFRP Laminates</b> Langxing Tan, Osamu Saito, Fengming Yu, Yoji Okabe (The University of Tokyo)</p>
11:20	<p><b>[Tu-2A-1] Microscopic Damage Evaluation of CFRP Cross-Ply Laminates subjected to Cyclic Loading</b> Youzou Kitagawa, Masahiro Arai, Akinori Yoshimura, Keita Goto (Nagoya University)</p>	<p><b>[Tu-2B-3] Corrosion Behavior of Pure Magnesium Applied Cyclic Stress</b> Tamaki Hanayama, Shoichiro Yoshihara (Shibaura Institute of Technology), Eitaro Yukutake (Industrial Technology Innovation Center Of Ibaraki Prefecture), Ryuichi Yamada (University of Yamanashi)</p>	<p><b>[Tu-2C-3] Generation of Tool Path in Incremental Forming by Neural Network</b> Masaaki Otsu, Shintaro Yoshida (University of Fukui), Takuya Miura (Osaka University)</p>	<p><b>[Tu-2D-3] Acoustic emission detection in carbon-carbon composites using a fiber-optic Bragg grating sensor at 1000 °C</b> Fengming Yu, Yoji Okabe (The University of Tokyo)</p>
11:40	<p><b>[Tu-2A-2] Fatigue limit evaluation of 90° unidirectional CFRP laminates in very high-cycle fatigue and free volume measurement of matrix using positron microscopy</b> Masafumi Tazuke, Tsuyoshi Miyakoshi, Atsushi Hosoi (Waseda University), Koji Michishio, Nagayasu Oshima (AIST), Naoki Sugiura (Mitsubishi Chemical Corporation), Hiroyuki Kawada (Waseda University)</p>	<p><b>[Tu-2B-4] Prediction of fatigue limit with small defect using Machine Learning</b> Yudai Nishimura, Keiji Yanase (Fukuoka University)</p>	<p><b>[Tu-2C-4] Ring Compression for High-strength Steel at High Compression Ratio under Dry Conditions</b> Takaaki Ohata, Kazuhiko Kitamura (Nagoya Institute of Technology), Kenichi Matunaga (MEG Inc.)</p>	<p><b>[Tu-2D-4] Ultrasonic testing for CFRP high-pressure hydrogen tanks used for fuel cell vehicles</b> Taiga Norikawa, Yoshihiro Mizutani (Tokyo Institute of Technology)</p>
12:00		<p><b>[Tu-2B-5] The effect of structural factors on the hydrogen storage capability and the hydrogen embrittlement of ductile cast irons</b> Ryunosuke Hayakawa, Takashi Matsuo, Masahiro Endo (Fukuoka University)</p>	<p><b>[Tu-2C-5] Crack Initiation and Growth of Hard Coating for Cold Forming under Simple Tensile Condition</b> Kazuhiro Asai (National Institute of Technology, Toyota College), Kazuhiko Kitamura (Nagoya Institute of Technology), Chikara Matsuda, Takuma Ise (YUKEN INDUSTRY CO.,LTD).</p>	<p><b>[Tu-2D-5] Active thermographic wide-range inspection using periodic scanning heating and Fourier transformation</b> Hidenari Suzuki, Masashi Ishikawa, Hideo Nishino (Tokushima University)</p>
12:20 -13:40	Lunch Break			

Tuesday Session 11/8 PM

	Room A	Room B	Room C	Room D
	<b>Polymer Matrix Composites 4</b> Chair: Masahito Ueda (Nihon University)	<b>Material Molding, Processing and Evaluation by Data-driven Approach</b> Chair: Wataru Nakao (Yokohama National University)	<b>3D/4D Soft-matter Systems and Soft-matter Robotics</b> Chair: Seido Yarimitsu (Kyushu University)	<b>Measurement Techniques and Nondestructive Evaluations for Materials, Structures and Processing 5</b> Chair: Yoji Okabe (The University of Tokyo)
13:40	<b>[Tu-3A-1] Fatigue properties and fatigue life prediction of CFRF</b> <u>Yuta Koga</u> , Yuma Hosono, Atsushi Hosoi (Waseda University), Kota Kawahara, Hiroaki Matsutani (Toray Industries, Inc.), Hiroyuki Kawada (Waseda University)	<b>[Tu-3B-1] Design optimization of bio-inspired 3D printing by machine learning</b> <u>Daiki Goto</u> , Ryosuke Matsuzaki (Tokyo University of Science)	<b>[Tu-3C-1] Micropatterning of Magnetic Properties on Gel Sheet for Soft Robotics</b> <u>Ryoma Shiraishi</u> , Fujio Tsumori (Kyushu University)	<b>[Tu-3D-1] Internal Stress Measurement of Aluminum Casting Materials by Neutron Stress Measurement Using JRR-3(RESA)</b> <u>Masayuki Nishida</u> (Kobe City College of Technology), Tatsuya Matsue (National Institute of Technology, Niihama College), Takahisa Shobu, Satoshi Morooka, Ping guang Xu (Japan Atomic Energy Agency)
14:00	<b>[Tu-3A-2] Internal Structures and Mechanical Properties of Injection Molded FRP Bolts with High Fiber Content</b> <u>Hayato Kikuta</u> , Akio Ohtani (Kyoto Institute of Technology)	<b>[Tu-3B-2] Exploration of fabrication conditions for 3D-printed short-fiber CFRP by process informatics</b> <u>Keiichi Shirasu</u> , Yudai Yamaguchi, Yamato Hoshikawa, Hironori Tohmyoh, Tomonaga Okabe (Tohoku University)	<b>[Tu-3C-2] Encoded actuation of miniaturized flexible magnetic pillars</b> <u>Toshiki Murakami</u> , Fujio Tsumori (Kyushu University)	<b>[Tu-3D-2] Novel Measurement Method of Internal Stress in Thin Films Using Micro Spring Structure</b> <u>Shun Takase</u> , Takahiro Yamazaki, Chiemi Oka, Junpei Sakurai, Seiichi Hata (Nagoya University)
14:20		<b>[Tu-3B-3] Bayesian Data Assimilation for Inverse Material Modelling using 3D-Digital Image Correlation Measurement</b> <u>Sae Sueki</u> (Tokyo University of Agriculture and Technology), Akimitsu Ishii (NIMS), Akinori Yamanaka (Tokyo University of Agriculture and Technology)		<b>[Tu-3D-3] Wireless Strain Measurement Method Using Magnetic Barkhausen Noise Analysis</b> <u>Kanna Omae</u> , Takahiro Yamazaki, Chiemi Oka, Junpei Sakurai, Seiichi Hata (Nagoya University)
14:40 -15:00	Tea & Coffee Break			
15:00	Poster Session at Foyer [P1-01 ~ P1-28]			
17:00 -17:20	Tea & Coffee Break			
17:20	<b>Plenary Lecture</b> <b>Additive Manufacturing of Ceramics using Pre ceramic Polymers</b> by Prof. Paolo Colombo (Università degli Studi di Padova) Chair: Satoshi Kobayashi (Tokyo Metropolitan University)			
18:20	Session Closed			

Wednesday Session 11/9 AM

9:00	<b>Plenary Lecture</b> <b>Basics and Application of Diamond-Like Carbon Films</b> by Prof. Naoto Ohtake (Tokyo Institute of Technology) Chair: Seichi Hata (Nagoya University)			
10:00 -10:20	Tea & Coffee Break			
	Room A	Room B	Room C	Room D
	<b>Polymer Matrix Composites 5</b> Chair: Masahiro Arai (Nagoya University)	<b>Dynamic Behavior of Materials and Structures 1</b> Chair: Hiroyuki Yamada (National Defense Academy)	<b>Metals and Metal Matrix Composites 1</b> Chair: Tomohiro Sasaki (Niigata University)	<b>Process and Reliability of Welding and Joining 1</b> Chair: Masanobu Kubota (Kyushu University)
10:20	<b>Keynote Speech</b> <b>Estimation of damage and fracture process in a unidirectional fiber-reinforced composite by Markov process</b> by Prof. Koichi Goda (Yamaguchi University)	<b>[We-1B-1] High Speed Tensile Properties of Laminated Films for Automotive Batteries</b> <u>Yuki Nagai</u> , Kousuke Suzuki, Susumu Takahashi (Nihon University)	<b>[We-1C-1] Analysis of process, properties and microstructure of aluminum casting alloy with machine learning techniques</b> <u>Kenjiro Sugio</u> , Yudai Hayashi, Gen Sasaki (Hiroshima University), Junji Tabata (Hiroshima Aluminum Industry Co.)	<b>[We-1D-1] Development of Steel/Fluororesin Dissimilar Materials Joining Technique by using Resistance Heating</b> <u>Koki Mimura</u> , Kenta Sugimura (Osaka Institute of Technology), Tatsumi Kawafuchi, Kiminori Washika (HIROTEC), Muneyoshi Iyota (Osaka Institute of Technology)
10:40		<b>[We-1B-2] Evaluation of damage mechanism of polymer film used in super-pressure balloon during release process</b> <u>Yu Ikeda</u> , Takuma Matsuo (Meiji University), Yoshitaka Saito (JAXA), Kyoichi Nakashino (Tokai University), Daisuke Akita (Tokyo Institute of Technology)	<b>[We-1C-2] Prediction of binding energies for Al based alloys containing vacancy by machine learning</b> <u>Jia Zhao</u> , Yutaro Maeda, Kenjiro Sugio, Gen Sasaki (Hiroshima University)	<b>[We-1D-2] Effects of Electrode Shape on Formation of the Intermetallic Compound for Fe/Al Dissimilar Materials Resistance Spot-welds using Die/Punch Shaped Electrodes</b> <u>Takuya Hamaguchi</u> , Muneyoshi Iyota (Osaka Institute of Technology)
11:00	<b>[We-1A-1] Evaluation of Tensile Properties and Microstructure of Sericin Removed Silkworm Silk Fibers</b> <u>Genki Kobayashi</u> , Hiroki Kurita, Yuki Chiba, Atsuhiko Nagasawa, Masatoshi Hori, Fumio Narita (Tohoku University)	<b>[We-1B-3] Damage in isotactic polypropylene sheet induced by falling weight impact tests</b> <u>Ryohei Ippitsu</u> , Yusuke Hiejima, Koh-hei Nitta (Kanazawa University)	<b>[We-1C-3] Synthesis of CrMnFeCoNi high-entropy alloys by powder metallurgy</b> <u>Kazuki Koda</u> , Masahiro Kubota (Nihon University)	<b>[We-1D-3] Prediction of Tightening Strength for Aluminum Alloy Bolts</b> Shinji Hashimura, Kazuki Kamibeppu, <u>Kenta Horinouchi</u> (Shibaura Institute of Technology)
11:20	<b>[We-1A-2] Influence of Isocyanate Silane Treatment on the Tribological Properties of Ramie Fiber Reinforced Plant-Derived Polyamide 1010 Biomass Composites</b> <u>Maiko Morino</u> , Ryota Ayabe, Yosuke Nishitani (Kogakuin University)		<b>[We-1C-4] Effect of Multilayering on Mechanical Property in Pulse-Electrodeposited Nanocrystalline Iron-Nickel Alloys</b> <u>Shigeaki Kobayashi</u> , Hirotohi Seki (Ashikaga University)	<b>[We-1D-4] Process-induced Damage and its Effect on Strength of Composite - Aluminum Alloy Joint by FDS Technique</b> <u>Hayato Nakatani</u> (Osaka Metropolitan University), Yuichi Hatanaka (Shinjo Manufacturing Co., Ltd.)
11:40	<b>[We-1A-3] Tensile Properties of Three-Dimensional Printed Cellulose Acetate with Various Printing Directions</b> <u>Alia Gallet-Pandellé</u> , Hiroki Kurita (Tohoku University), Renaud Rinaldi, Florent Dalmas (INSA-Lyon, MATEIS), Fumio Narita (Tohoku University)		<b>[We-1C-5] The effect of particle size distribution of water-atomized fine powders on the microstructure and associated mechanical properties in metal binder jet 3D printing</b> <u>Yuta Kinai</u> , Toshiko Osada, Satoshi Kobayashi (Tokyo Metropolitan University), Tomo Takahashi (Pacific Sowa Corporation, Tokyo Metropolitan University), Yoshiyuki Kato (Kato Professional Engineer Office), Kenji Yokoyama (ExOne)	
12:00 -13:20	Lunch Break			



Wednesday Session 11/9 PM

	Room A	Room B	Room C	Room D
	<p><b>Polymer Matrix Composites 6</b> Chair: Satoshi Kobayashi (Tokyo Metropolitan University)</p>	<p><b>Dynamic Behavior of Materials and Structures 2</b> Chair: Masaaki Itabashi (Suwa University of Science)</p>	<p><b>Metals and Metal Matrix Composites 2</b> Chair: Kenjiro Sugio (Hiroshima University)</p>	<p><b>Process and Reliability of Welding and Joining 2</b> Chair: Shinji Hashimura (Shibaura Institute of Technology)</p>
13:20	<p><b>[We-2A-1] Relationship between crystalline state of matrix resin and interfacial properties in FRTP</b> <u>Shota Takimoto</u>, Hayato Kikuta, Akio Ohtani (Kyoto Institute of technology)</p>	<p><b>[We-2B-1] Evaluation of Energy Absorption Performance of Cellular Materials Designed with a Machine-learning Based Framework</b> <u>Jinlan Song</u>, Aoi Takagi, Kohei Saito, Takeru Miyagawa, Akio Yonezu (Chuo University)</p>	<p><b>[We-2C-1] Effect of hydrogen on fatigue crack growth behavior of low alloy steels in methane</b> <u>Shunsuke Umezaki</u>, Masanobu Kubota (Kyushu University), Ryosuke Komoda (Fukuoka University), Naho Inoue, Hiroshi Okano, Tomoharu Ishida (JFE Steel Corporation)</p>	<p><b>[We-2D-1] Creep-fatigue life property of a P91 welded pipe subjected to combined loads</b> <u>Kazuma Okuno</u>, Masayuki Arai (Tokyo University of Science), Kiyohiro Ito (Suwa University of Science), Daisuke Kashiwagi (Tokyo University of Science), Hidetaka Nishida (The Chugoku Electric Power Company)</p>
13:40	<p><b>[We-2A-2] The Fracture Mechanism of 2DP-GFRP with Absorption and Desorption of Moisture</b> <u>Miyu Sugai</u>, Masashi Koyama (Meisei University)</p>	<p><b>[We-2B-2] Dynamic Compressive Behavior of Polymeric Micro-lattice Structure Fabricated by Optical 3D Printer</b> <u>Ryoya Kuriyama</u>, Takahiro Kawano, Tomohisa Kojima (Chuo University), Hiroyuki Yamada (National Defense Academy of Japan), Kohei Tateyama (Muran Institute of Technology), Tomoaki Tsuji (Chuo University)</p>	<p><b>[We-2C-2] Effect of Hydrogen on Creep Properties of Pure Iron</b> <u>Kentarou Wada</u>, Toru Yamashita (Kyushu University), Daisuke Takazaki (Nippon Steel), Ryosuke Komoda (Fukuoka Univesity), Masanobu Kubota (Kyushu University)</p>	<p><b>[We-2D-2] Reduction Method of Welding Residual Stress using Ultrasonic Vibration Load - Effects of Material Properties on Reduction Rate for Welding Residual Stress -</b> <u>Takero Hirose</u>, Katsumi Kurita, Shigeru Aoki (Tokyo Metropolitan College of Industrial Technology), Shigeomi Koshimizu, Tatsuo Yoshida (Advanced Institute of Industrial Technology)</p>
14:00	<p><b>[We-2A-3] Degradation of interfacial strength between carbon fiber and thermoplastic resin due to water absorption</b> <u>Kuma Koiiwa</u>, Masahito Ueda (Nihon University)</p>	<p><b>[We-2B-3] Effect of Internal Air on Compressive Properties of Foamed Polymer</b> <u>Kohei Tateyama</u>, Hiroyuki Fujiki (Muran Institute of Technology)</p>	<p><b>[We-2C-3] Nitrogen-addition for hydrogen-compatible SUS304</b> <u>Arnaud Macadre</u>, Naoya Hara, Ryo Okamoto, Koichi Goda (Yamaguchi University)</p>	<p><b>[We-2D-3] Development of Joining Technique for Wrought Aluminum Alloy and Aluminum Die Casting Alloy Combination by using Resistance Spot Welding with Die/Punch Shaped Electrodes</b> <u>Munevoshi Iyota</u>, Takuya Hamaguchi, Ryuji Tanaka (Osaka Institute of Technology)</p>
14:20		<p><b>[We-2B-4] Development of soft epoxy honeycomb and its application to impact absorber</b> <u>Masahiro Higuchi</u>, Tomoki Harada, Hiroshi Tachiya (Kanazawa University)</p>	<p><b>[We-2C-4] Synthesis of Mg-Al alloys with corrosion resistance by powder metallurgy</b> <u>Takumi Tanaka</u>, Masahiro Kubota (Nihon University)</p>	<p><b>[We-2D-4] Diffusion bonding of tungsten carbide particles covered by carbon nanotube composite nickel coatings</b> <u>Tsunehisa Suzuki</u>, Naoya Takiyama, Toru Saito, Daiki Abe, Tatsuya Fujii, Mitsuyoshi Nomura (Akita Prefectural University)</p>
14:40 -15:00	Tea & Coffee Break			
15:00	<p><b>Poster Session at Foyer</b> <b>[P2-01 ~ P2-28]</b></p>			
17:00 -17:20	Tea & Coffee Break			
17:20	<p><b>Plenary Lecture</b> <b>Particulate filled thermoplastics composites for the material extrusion additive manufacturing of ceramics and metals</b> by Dr. Joamin Gonzalez-Gutierrez (Luxembourg Institute of Science and Technology) Chair: Takenobu Sakai (Saitama University)</p>			
18:20	Session Closed			

Thursday Session 11/10 AM(1)

	Room A	Room B	Room C	Room D
	<b>Polymer Matrix Composites 7</b> Chair: Akio Ohtani (Kyoto Institute of Technology)	<b>Dynamic Behavior of Materials and Structures 3</b> Chair: Kohei Tateyama (Muroran Institute of Technology)	<b>Smart Materials and Structures 1</b> Chair: Tetsuro Yanaseko (Kogakuin University)	<b>Advanced Material Processing 1</b> Chair: Ryo Matsumoto (Osaka University)
9:00	<b>[Th-1A-1] Topology and material orientation optimization for 3D printed fiber-reinforced polymers</b> <u>Naruki Ichihara</u> , Masahito Ueda (Nihon University)	<b>[Th-1B-1] Effect of Microscopic Structural Changes on Strain Rate Dependence of Compressive Strength of High-Density Polyethylene</b> <u>Nobuhiro Misumi</u> , Hiroyuki Yamada, Nagahisa Ogasawara (National Defense Academy), Ryohei Ippitsu, Masahiro Higuchi, Yusuke Hiejima, Koh-hei Nitta (Kanazawa University)	<b>[Th-1C-1] Evaluation of Energy Harvesting Performance of Fe-Co Based Magnetostrictive Clad Films</b> <u>Toshiki Ueno</u> , Hiroki Kurita, Fumio Narita (Tohoku University)	<b>[Th-1D-1] Advanced Powder Metallurgy Process for High-strengthened Titanium Materials Using Ubiquitous Solid Solutes</b> <u>Katsuyoshi Kondoh</u> , Shota Kariya, Ammarueda Issariyapat (Osaka University), Shufeng Li (Xi'an University of Technology), Junko Umeda (Osaka University)
9:20	<b>[Th-1A-2] Effect of 3D printing conditions on the mechanical properties of CF/PPS composites</b> <u>Sawane Norimatsu</u> , Rei Shuto (Tokyo University of Science), Dwayne Arola (University of Washington), Ryosuke Matsuzaki (Tokyo University of Science)	<b>[Th-1B-2] Development of LaSAT and Bonding Strength Evaluation of Epoxy Adhesive over a Wide Range of Loading Rates</b> <u>Akio Yonezu</u> , Yoshikatsu Kimoto, Akihiro Shinozaki, Shotaro Yasuda, Tomohisa Kojima (Chuo University), Hiroyuki Yamada (National Defense Academy)	<b>[Th-1C-2] Crack Detection Capability of Glass Fiber Reinforced Polymer Composites with Magnetostrictive Wires under Double Cantilever Beam</b> <u>Tomoki Miyashita</u> , Kenichi Katabira, Hiroki Kurita, Fumio Narita (Tohoku University)	<b>[Th-1D-2] Advanced Coating Process of Un-bundled Carbon Nanotubes on Titanium Plate to Improve Tribological Property and Biocompatibility</b> <u>Junko Umeda</u> (Osaka University), Hirofumi Miyaji (Hokkaido University), Bunshi Fugetsu (The University of Tokyo), Seung Ki Moon (Nanyang Technological University), Anak Khantachawana (King Mongkut's University of Technology), Shota Kariya (Osaka University)
9:40	<b>[Th-1A-3] 3D printing of pin-loading section with optimized print path using short carbon fiber reinforced plastic</b> <u>Yuki Asano</u> , Naruki Ichihara, Masahito Ueda (Nihon University)	<b>[Th-1B-3] Molecular dynamics simulations and experimental study of strain rate dependence of the indentation deformation for engineering polymer</b> <u>Ayumu Morimura</u> , Hiroki Nishino, Miki Kajihara, Yusuke Nakao, Akio Yonezu (Chuo University)	<b>[Th-1C-3] Al addition to Fe-based nanocrystalline soft materials for large magnetostriction</b> <u>Kohya Sano</u> , Chiemi Oka, Junpei Sakurai (Nagoya University), Takahiro Yamazaki (Tokyo University of Science), Seiichi Hata (Nagoya University)	<b>[Th-1D-3] Cutting properties of CVD diamond coated tools shaped by femtosecond laser grinding</b> <u>Xiaoxu Liu</u> , Nagomu Hida, Satoru Maegawa, Fumihito Itoigawa (Nagoya Institute of Technology)
10:00	<b>[Th-1A-4] Fused deposition modeling 3D printing interlayer strengthening by thickness direction fiber arrangement</b> <u>Aiko Fujii</u> , Jumpei Kajimoto, Jun Koyanagi, Ryosuke Matsuzaki (Tokyo University of Science)		<b>[Th-1C-4] 3D printed bridge as filter for Okinawan traditional music instruments Sanshin</b> <u>Yoshihiro Mizutani</u> (Tokyo Institute of Technology), Kojiro Nishimiya, Masahiro Yamada (Aoyama Gakuin University), Mizuki Hiramatsu (Kyoto University of the Arts)	<b>[Th-1D-4] Effect of Ultrasonic Vibration on Creating Surface Texture and Future Prospect</b> <u>Shigeru Aoki</u> (Tokyo Metropolitan College of Industrial Technology), Yasunori Sakai (Shibaura Institute of Technology)
10:20 -10:40	Tea & Coffee Break			

Thursday Session 11/10 AM(2)

	Room A	Room B	Room C	Room D
	<b>Polymer Matrix Composites 8</b> Chair: Yoshihiko Arai (Waseda University)	<b>Dynamic Behavior of Materials and Structures 4</b> Chair: Masahiro Higuchi (Kanazawa University)	<b>Smart Materials and Structures 2</b> Chair: Junpei Sakurai (Nagoya University)	<b>Advanced Material Processing 2</b> Chair: Yukio Miyashita (Nagaoka University of Technology)
10:40	<b>[Th-2A-1] Development of a recycled carbon fiber reinforced polyamide filament for 3D printing</b> <u>Keigo Sato</u> , Masahito Ueda (Nihon University)	<b>[Th-2B-1] Effect of strain rate on compressive properties in artificial pumice</b> Riku Kimura, Hiroyuki Yamada, Nagahisa Ogasawara (National Defense Academy), Kohei Tateyama (Muroran Institute of Technology), Hisashi Sasaki (Asia Air Survey Co.,Ltd.)	<b>[Th-2C-1] Unsteady thermoelectroelastic analysis of piezoelectric cylinder with <math>D_{\infty}</math> symmetry under axisymmetric thermal loading</b> <u>Tohma Matsuoka</u> (Osaka Prefecture University), Ishihara Masayuki (Osaka Metropolitan University)	<b>[Th-2D-1] Influence of Pore Morphology on Joining Characteristics in Plastic Joining of Metallic Foam and Resin by Local Friction Heating</b> <u>Ryo Matsumoto</u> , Shusuke Kunisawa, Hiroshi Utsunomiya (Osaka University)
11:00	<b>[Th-2A-2] Optimal conditions for Heating Wrapping Molding of CFRTP Pipes</b> <u>Kohei Taniguchi</u> , Asami Nakai (Gifu University)	<b>[Th-2B-2] Mechanical Properties of Bellows Considering Cross-sectional Deformation due to Internal Pressure</b> <u>Shuto Arashiro</u> , Kohei Tateyama, Hiroyuki Fujiki (Muroran Institute of Technology)	<b>[Th-2C-2] Electroelastic field in a sheared piezoelectric cylinder with <math>D_{\infty}</math> symmetry disturbed by nonuniform hygoexpansion</b> <u>Masayuki Ishihara</u> , Yuto Nakada (Osaka Metropolitan University), Yoshitaka Kameo (Kyoto University)	<b>[Th-2D-2] Trials of developing a compact heat exchanger utilizing friction stir forming</b> <u>Hamed Mofidi Tabatabaei</u> , Takahiro Ohashi, Tadashi Nishihara (Kokushikan University)
11:20	<b>[Th-2A-3] Effect of Molding Conditions on Crystallization during CFRTP 3D Printing</b> <u>Yasuhiro Tasaka</u> , Ryosuke Matsuzaki (Tokyo University of Science)	<b>[Th-2B-3] Comparison of Penetrated MnS Grains by Steel Matrix in Various Loaded Free-Cutting Steels with/without Pb as One of the Workability Parameters</b> <u>Masaaki Itabashi</u> (Suwa University of Science)	<b>[Th-2C-3] Optimization of Polarization Conditions of Metal Matrix Piezoelectric Composite Based on Breakdown Electric Field and Permittivity of Oxide Film of Metal Core within Piezoelectric Ceramics</b> <u>Ryo Shirai</u> , Tetsuro Yanaseko (Kogakuin University)	<b>[Th-2D-3] Study on rotating compression forming of porous materials</b> <u>Yeong-Maw Hwang</u> , Sheng-Kai Yin (National Sun Yat-sen University)
11:40			<b>[Th-2C-4] Investigation of TLP Bonding Conditions for Development of Iron Matrix Piezoelectric Composites</b> <u>Akihisa Iwata</u> , Tetsuro Yanaseko (Kogakuin University)	<b>[Th-2D-4] Effect of pretreatment shotblasting prior to lubrication for cold forging</b> <u>Kazutoshi Tachibana</u> , Kazuhiko Kitamura (Nagoya Institute of Technology)
12:00 -13:20	Lunch Break			

Thursday Session 11/10 PM

	Room A	Room B	Room C	Room D
	<p><b>Polymer Matrix Composites 9</b> Chair: Ryosuke Matsuzaki (Tokyo University of Science)</p>	<p><b>Novel Porous Materials and Their Applications</b> Chair: Masataka Ijiri (Tokyo Metropolitan University)</p>	<p><b>Metals and Metal Matrix Composites 3</b> Chair: Shigeaki Kobayashi (Ashikaga University)</p>	<p><b>Advanced Material Processing 3</b> Chair: Yeong-Maw Hwang (National Sun Yat-sen University)</p>
13:20	<p><b>[Th-3A-1] Manufacturing of 3D-print filament using continuous carbon fiber reinforced polyetheretherketon</b> <u>Tomoki Nagamine</u>, Masahito Ueda (Nihon University)</p>	<p><b>[Th-3B-1] Recent progress of porous ceramics</b> <u>Manabu Fukushima</u>, Yuki Nakashima, Tatsuki Ohji (AIST)</p>	<p><b>[Th-3C-1] Ti Fiber-Reinforced Porous Ti Fabricated via Powder Metallurgy-Based Space Holder Technique for Biomedical Applications</b> <u>Naoto Kobayashi</u>, Tomoyuki Fujii, Yoshinobu Shimamura (Shizuoka University)</p>	<p><b>[Th-3D-1] Effect of nano-silica addition to the water atomized powder on the flowability during recoating and sintered properties of metal binder jet 3D printing</b> <u>Tomo Takahashi</u> (Pacific Sowa Corporation, Tokyo Metropolitan University), Toshiko Osada, Satoshi Kobayashi (Tokyo Metropolitan University), Yoshiyuki Kato (Kato Professional Engineer Office), Kenji Yokoyama (ExOne)</p>
13:40	<p><b>[Th-3A-2] Macro-scale model of carbon fiber reinforced plastic for thermoplastic forming simulation</b> <u>Nobuhiro Yoshikawa</u>, Tomotaka Ogasawara (The University of Tokyo)</p>	<p><b>[Th-3B-2] Room-temperature fabrication and nano-sized hollow structures for porous silica-based ceramics</b> <u>Yuki Nakashima</u>, Manabu Fukushima (AIST)</p>	<p><b>[Th-3C-2] Properties of pure magnesium fabricated by powder metallurgy</b> <u>Takumi Inomiya</u>, Masahiro Kubota (Nihon University)</p>	<p><b>[Th-3D-2] Fatigue Properties Improvement via Compressive Residual Stress Induced by a Portable Laser Peening System</b> <u>Yoshio Mizuta</u> (Osaka University), Kiyotaka Masaki (National Institute of Technology, Okinawa College), Tomoharu Kato, Yoshihiro Sakino (Kindai University), Satoshi Tamaki (LAcubed Co., Ltd.), Tomonao Hosokai (Osaka University), Yuji Sano (Institute for Molecular Science)</p>
14:00	<p><b>[Th-3A-3] Continuous Molding of CFRTP Pipes by Open Molding Technology</b> <u>Kousuke Yamaguchi</u>, Asami Nakai (Gifu University)</p>	<p><b>[Th-3B-3] Characterization of porous ceramics with unique surface layer via dry-based direct foaming process</b> <u>Akihiro Shimamura</u>, Manabu Fukushima, Naoki Kondo, Mikinori Hotta (AIST)</p>	<p><b>[Th-3C-3] Mechanical alloying process of Ti-C mixed powders and their microstructural characterizations</b> <u>Ryo Tsukane</u> (Tottori Institute of Industrial Technology), Kazuhiro Matsugi, Yong-Bum Choi (Hiroshima University), Hiroyasu Tamai, Toshiyuki Tanaka (Tottori Institute of Industrial Technology)</p>	<p><b>[Th-3D-3] Examination of the possibility of the heat-cool injection molding using hydrogen-absorbing alloys</b> <u>Hisashi Kinjo</u>, Yoshimitsu Takahashi, Masataka Kosaka, Yoshio Fukushima (Saitama Insutitute of Technology)</p>
14:20	<p><b>[Th-3A-4] Comparison of Permeabilities in Unidirectional and Radial In-plane Flow for GF-NCF / Epoxy Composites during VaRTM Process</b> <u>Shinnosuke Yoshikawa</u>, Hayato Nakatani (Osaka City University)</p>	<p><b>[Th-3B-4] A proposition of design parameter for mechanical properties of porous carbon materials by using image-based analyses</b> <u>Yutaro Arai</u>, Yuka Daigo, Ikumi Saito, Esuke Kojo, Ryo Inoue, Yasuo Kogo (Tokyo University of Science)</p>	<p><b>[Th-3C-4] Wetting process and interfacial microstructure in ultrasonic brazing of aluminum alloy</b> <u>Hiroimi Shiojima</u>, Hiromasa Miura, Tomohiro Sasaki (Niigata University), Tatsuya Ueda, Jyunya Ueda, Kouki Sueda (Sumitomo Precision Products Co. Ltd.)</p>	<p><b>[Th-3D-4] Improvement of Residual Stress of Non-oriented Electrical Steel Sheet by Low-energy Laser Peening</b> <u>Hiroto Ueno</u>, Koichi Akita (Tokyo City University), Yuji Sano (Institute for Molecular Science), Yoshio Mizuta, Tomonao Hosokai (Osaka University), Satoshi Tamaki (LAcubed Co., Ltd.)</p>
14:40	<p><b>[Th-3A-5] Permeability Evaluation of Glass Fiber Non-Crimp Fabric in Vacuum-assisted Resin Transfer Molding</b> <u>Yuki Kano</u>, Masataka Ijiri, Toshiko Osada, Satoshi Kobayashi (Tokyo Metropolitan University)</p>		<p><b>[Th-3C-5] Evaluation of Wettability between Magnesium and Steel, and Development of High Performance Composites</b> Kwangmo Park, Kohei Yamane, Kenjiro Sugio, <u>Gen Sasaki</u> (Hiroshima University)</p>	
15:00	Closing Address			
15:20	Conference Closed			

Tuesday Poster Session 11/8 15:00 to 17:00

	Poster No.	Title	Author(s)
15:00 -17:00	P1-01	A Proposal of Fatigue Life Assessment Method for Ceramic Thermal Barrier Coating Systems under Thermal Fatigue Conditions	<u>Mili Lee</u> , Arai Masayuki (Tokyo University of Science)
	P1-02	Hot forging properties of TiC particles reinforced Ti matrix composite using graphite powder sheet	<u>Yongbum Choi</u> , Ning Wang, Kentaro Oue, Kazuhiro Matsugi (Hiroshima University)
	P1-03	Deposition of TiC film by surface wave plasma with titanium counter electrode	<u>Yusuke Ushiro</u> (Umetoku Co. Ltd.), Ippei Tanaka, Yasunori Harada (University of Hyogo), Takashi Ogisu (Umetoku Co. Ltd.)
	P1-04	A Study on Stable Rang of Cutting Conditions under a 2 Dimensional Turing	<u>Xuan Chen</u> , Feng Gao (Nishinippon Institute of Technology)
	P1-05	Fatigue crack growth behavior of orthogonal 3-D woven SiC fiber/ SiC matrix composites at elevated temperature in air	<u>Kota Negishi</u> , Toshio Ogasawara (Tokyo Agriculture and Technology University), Takuya Aoki (JAXA)
	P1-06	Fatigue strength characteristic in solid solution strengthened titanium alloys	<u>Andre Mateo Gutierrez</u> , Yukio Miyashita (Nagaoka University of Technology), Katsuyoshi Kondoh, Junko Umeda (Osaka University)
	P1-07	Hardening of metal films deposited by cold spray using light elemental diffusion	<u>Daiki Tanaka</u> , Yuki Hirata, Naoto Ohtake, Hiroki Akasaka (Tokyo Institute of Technology)
	P1-08	A Study on Increasing Efficiency of Driving Power for a Small Electrical Racing Car	<u>Yue Zhou</u> , Feng Gao (Nishinippon Institute of Technology)
	P1-09	Effect of thickness of graphitic layers on mechanical properties of aerographite microparticles	<u>Yuexuan Li</u> , Kaori Hirahara (Osaka University)
	P1-10	The Influence of Microstructure and Residual Stresses on Characteristics of Joining Dissimilar Materials with Ceramics by Friction Welding	<u>Tsuyoshi Takahashi</u> (National Institute of Technology, Kushiro Campus), Masaaki Kimura (University of Hyogo), Son Thanh Nguyen, Kaisei Takeda (National Institute of Technology, Kushiro Campus)
	P1-11	Development of Adhesion Evaluation Method for Metallic Nano Films by Using Laser Shock-wave Adhesion Test (LaSAT)	<u>Shotaro Yasuda</u> , Takeru Miyagawa, Akio Yonezu (Chuo University)
	P1-12	Development on New type of Greenhouse Heater by Using Wooden Pellets as Fuel	<u>Ziting Sun</u> , Feng Gao (Nishinippon Institute of Technology)
	P1-13	Fabrication of high formable shape memory alloy nano cilium using thermal nanoimprint	<u>Kanta Sato</u> , Takahiro Yamazaki, Chiemi Oka, Seiichi Hata, Junpei Sakurai (Nagoya University)
	P1-14	Prototype of parallel palate type fast atom beam source	<u>Taisei Kato</u> , Ryo Morisaki, Takahiro Yamazaki, Chiemi Oka, Junpei Sakurai, Seiichi Hata (Nagoya University)
	P1-15	Investigation of heat generation caused by standing waves in ultrasound-excited active thermography nondestructive inspection	<u>Ryoto Maeda</u> , Masashi Ishikawa, Hideo Nishino (Tokushima University), Masashi Koyama (Meisei University), Ryo Fukui, Yoshio Habuka, Yutaka Nishitani (KJTD Co.,Ltd.)
	P1-16	A Study on Setting of Overhang Length of an End Mill	<u>Xiao Lei Guo</u> , Feng Gao (Nishinippon Institute of Technology)
	P1-17	Effect of tactile pin height on driving characteristics using high formable shape-memory alloy for reaction force variable tactile displays	<u>Masanori Murase</u> , Keita Nambara, Takahiro Yamazaki, Chiemi Oka, Seiichi Hata, Junpei Sakurai (Nagoya University)
	P1-18	Effect of filler material and welding process on plane bending fatigue strength characteristic in Mg-Al-Ca-Mn alloy welds	<u>Xuanyi Shao</u> , Yukio Miyashita (Nagaoka University of Technology)
	P1-19	Development of a remote hitting inspection device to investigate back cavity defects in aged sprayed concrete slopes	<u>Akira Koishi</u> , Kazuya Mori (Kumamoto University)
	P1-20	Stress Measurement Using DIC Method in HBM Tension Test	<u>Tsutomu Umeda</u> , Koji Mimura (Osaka Metropolitan University)
	P1-21	Combinatorial Search and Evaluation for new Ti- Ni-Hf high formable shape memory alloys	<u>Yishu Wang</u> , Shin Inoue, Takahiro Yamazaki, Chiemi Oka, Seiichi Hata, Junpei Sakurai (Nagoya University)
	P1-22	Inline hot rolling of Al-Mg alloy strip cast using an unequal diameter twin roll caster	Masataka Furukawa, <u>Toshio Haga</u> (Osaka Institute of Technology)
	P1-23	X-ray Stress Measurement of Rolled Aluminum Material by MoK $\alpha$	Shunta Kanki, Masayuki Nishida (Kobe City College of Technology)
	P1-24	High Porosity $\beta$ -tricalcium phosphate-based Hydroxyapatite Composites Scaffold by Hydrothermal hot pressing	<u>Takumi Sekine</u> (Tokyo Metropolitan University), Seiichi Sugimoto (Tokyo Metropolitan College of Industrial Technology), Kazuo Yagi (Tohto University), Satoshi Kobayashi (Tokyo Metropolitan University)
	P1-25	Lotus-type-pore fabrication using iron-oxide nanoparticles assembled under uniform magnetic field	<u>Atsuki Kobayashi</u> , Junpei Sakurai, Seiichi Hata, Chiemi Oka (Nagoya University)
	P1-26	Strip casting of Al-Mg alloy with Fe using a single roll caster equipped with a scraper	Toshio Haga (Osaka Institute of Technology)
	P1-27	Residual Stress Measurement of PPS Materials by X-ray Diffraction Method	Masayuki Nishida, <u>Sena Aida</u> , Soma Nishimura, Daiki Tanabe (Kobe City College of Technology)
	P1-28	Enhancement of Gripping Ability for Soft Polymer Using Fine Protrusions Formed on Stainless Steels by Sputter Etching	<u>Sande Gao</u> (Meisei University), Keijiro Nakasa (Hiroshima Kokusai Gakuin University)

Wednesday Poster Session 11/9 15:00 to 17:00

	Poster No.	Title	Author(s)
15:00 -17:00	P2-01	Observation of fatigue fracture when pressure fluctuates on honeycomb core sandwich panel used on wing surface of aircraft	<a href="#">Yuki Kojima</a> , Yukiyoshi Kobayashi, Yoshinao Kishimoto (Tokyo City University)
	P2-02	Creep Rate and Creep Rupture Time of Negative Electrode for Lithium-Ion Batteries with Different Composition Ratios of PVDF Binder	<a href="#">Kairi Shiraishi</a> , Takahiro Nomoto, Masaya Ueda, Yoshinao Kishimoto, Yukiyoshi Kobayashi (Tokyo City University)
	P2-03	Evaluation of joining behavior between UD-CF/Epoxy laminates and aluminum plate using ultrasonic heating	<a href="#">Aoi Urano</a> , Daiki Tanabe (Kobe City College of Technology), Kazuaki Nishiyabu (KINDAI University)
	P2-04	Drawability of Titanium Corrugated Cup Using Roller Ball Die	<a href="#">Yasunori Harada</a> , Haruki Izumi (University of Hyogo)
	P2-05	Two-Steps Thermomechanical Processing for Low-Angle Grain Boundary Engineering in SUS409L Stainless Steel	<a href="#">Gaku Furukawa</a> , Shigeaki Kobayashi (Ashikaga University)
	P2-06	Effect of Addition Amount on Mechanical Properties of Drawn Composites Consisting of Surface Modified Tricalcium Phosphate and Poly(lactic acid)	<a href="#">Kazuma Saiki</a> , Masato Sakaguchi (Salesian Polytechnic)
	P2-07	Effects of carbon nanotube added resistance heating element on resistance welding behavior of Woven-CF/PPS laminates	<a href="#">Daiki Tanabe</a> , Soma Nishimura (Kobe City College of Technology), Kazuaki Nishiyabu (KINDAI University)
	P2-08	Joining of magnesium alloy with dissimilar metal sheet by particle collision	<a href="#">Kenta Sugihara</a> , Yasunori Harada, Ippei Tanaka (University of Hyogo)
	P2-09	Control of Grain Boundary Microstructure for Improving Corrosion Resistance in SUS436L	<a href="#">Shogo Kurauchi</a> , Shigeaki Kobayashi (Ashikaga University)
	P2-10	Secondary Formability of Carbon Fiber Reinforced Thermoplastics with Local Heating Method	<a href="#">Kosuke Shimizu</a> , Masataka Ijiri, Toshiko Osada, Satoshi Kobayashi (Tokyo Metropolitan University)
	P2-11	Effect of nonlinear electrical current-voltage characteristic in the thickness direction of CFRP laminate on the lightning strike damage	<a href="#">Yu Fujisawa</a> , Takumi Sato (Tokyo University of Agriculture and Technology), Yoshiyasu Hirano, Shintaro Kamiyama (JAXA), Toshio Ogasawara (Tokyo University of Agriculture and Technology)
	P2-12	Warm Deep Drawing with Friction Heated Punch	<a href="#">Taiki Takahara</a> , Yasunori Harada (University of Hyogo)
	P2-13	Multilayer Structure Control and Mechanical Property of Electrodeposited Nanocrystalline Iron-Nickel Alloys with Chemical Composition Gradient	<a href="#">Cheng Wei</a> , Shigeaki Kobayashi (Ashikaga University)
	P2-14	Effect of forging conditions on mechanical properties and molecular orientation of TCP/PLA screw	<a href="#">Masato Sakaguchi</a> , Nobuo Kurosawa, Riku Arakawa (Salesian Polytechnic)
	P2-15	Evaluation of Interfacial Strength between Matrix and Fibers with Different Stiffnesses and Diameters	<a href="#">Isamu Tani</a> , Hayato Nakatani (Osaka City Univeristy)
	P2-16	Tensile Characteristics of Thermomechanically Treated Pure Titanium	<a href="#">Kohei Ogawa</a> , Yasunori Harada (University of Hyogo)
	P2-17	Preparation of Copper-coated Short Carbon Fiber Reinforced Aluminum Matrix Composites and Improvement of Carbon Fiber Distribution by Hot Rolling	<a href="#">Ying Guo</a> , Wenquan Li, Kenjiro Sugio, Gen Sasaki (Hiroshima University)
	P2-18	Study on Simple Prediction of Fatigue Life of Anode Materials for Lithium-ion Batteries	<a href="#">Takahiro Nomoto</a> , Kairi Shiraishi, Kouta Kikuchi, Yoshinao Kishimoto, Yukiyoshi Kobayashi (Tokyo City University)
	P2-19	Influence of Input Voltage on Conversion Efficiency of Dielectric Elastomer Generator with Laterally-constrained Configuration	<a href="#">Dejie Sun</a> , Shijie Zhu, Tonghuan Qu, Kazuhiro Ohyama (Fukuoka Institute of Technology)
	P2-20	Effects of reactive gases on synthesis of carbon nitride by MVP	<a href="#">Masahiro Ohira</a> , Ippei Tanaka, Yasunori Harada (University of Hyogo)
	P2-21	The effect of geometric irregularity for the mechanical properties of lattice materials	<a href="#">Kotone Sato</a> , Yutaro Arai, Kuniharu Ushijima, Shinya Sasaki, Yasuo Kogo (Tokyo University of Science)
	P2-22	Improvement in Thermal Conductivity and Mechanical Properties for Polyamide-6 Composite with Carbon Fibers and Alumina Particles	<a href="#">Suguru Ishida</a> , Masataka Ijiri, Toshiko Osada, Satoshi Kobayashi (Tokyo Metropolitan University)
	P2-23	Fabrication of Metal Matrix Piezoelectric Composite Having Two Internal Electrodes	<a href="#">Taiyu Yamashita</a> , Tetsuro Yanaseko (Kogakuin University)
	P2-24	Synthesis of diamond using surface-wave plasma source along carbon rod	<a href="#">Ippei Tanaka</a> , Rintsu Masukawa, Yasunori Harada (University of Hyogo)
	P2-25	Deformation and fracture of flexible laminated structure in the forming process: finite element analysis	<a href="#">Ryusuke Sato</a> , Ken-ichi Saitoh, Masanori Takuma, Yoshimasa Takahashi, Tomohiro Sato (Kansai University)
	P2-26	Analyses on fracture behavior of CFRP rope caused by compression bending	<a href="#">Taro Kambe</a> , Yutaro Arai, Ryo Inoue, Yasuo Kogo (Tokyo University of Science), Hironobu Yamashita (Tokyo Rope International Inc.)
	P2-27	Contorolling intermal stress of Ni-Nb-Zr thin film amorphous alloy diaphragms by beta-relaxation annealing	<a href="#">Jinglan Xie</a> , Fuyuki Haga, Takahiro Yamazaki, Chiemi Oka, Seiichi Hata, Junpei Sakurai (Nagoya University)
	P2-28	Effect of applied voltage on the preparation of carbon films using MVP method	<a href="#">Yuri Yoshimoto</a> , Ippei Tanaka, Yasunori Harada (University of Hyogo)