

**Friday Afternoon, November 13**

Room	Plenary Lectures at Small Auditorium (1:00 PM – 5:00 PM)
1:00 PM – 1:20 PM	Opening Ceremony
1:20 PM – 2:00 PM	Prof. G. Ravichandran, California Institute of Technology, USA "Interaction of Cells with Biomaterials using 3D Measurement Techniques for Studying Cell Mechanics" p1
2:00 PM – 2:40 PM	Prof. Daining Fang, Peking University, China "Study on Magneto-thermo-mechanical Behaviors of Magnetostrictive Materials" p2
3:00 PM – 3:40 PM	Prof. Wu YANG, Shanghai Research Institute of Materials (SRIM), China "Development of Nuclear Power Industry in China and Research on Environmentally Assisted Cracking of Nuclear Power Materials" p3
3:40 PM – 4:20 PM	Prof. Soon-Bok Lee, KAIST, Korea "Reliability Assessment of Advanced Materials and Structures" p4
4:20 PM – 5:00 PM	Prof. Akira Todoroki, Tokyo Tech, Japan "Self-Sensing Multifunctional CFRP Composites" p5
5:30 PM – 7:00 PM	Welcome Reception at Bay Bridge Cafeteria, 6F

**Saturday Early Morning, November 14**

Room	501	502	416+417	414+415	411+412
Session	<b>5. Fatigue Strength, Fatigue Crack (1)</b> Chairs: M Kubota (Kyushu Univ), M Goto (Oita Univ)	<b>9. Adhesion, Joint, Boundary Face (1)</b> Chairs: N Noda (Kyushu Inst Tech), H Koguchi (Nagaoka Univ Tech)	<b>4. Measurement Technique, Characteristic Evaluation (1)</b> Chairs: M Arai (CRIEPI) Y Kurokawa (Tokyo Tech)	<b>10. Micro Nano Mechanics (1)</b> Chairs: E Chabert (Ecole Polytech), T Shimada (Kyoto Univ)	
9:20 AM	Fatigue crack initiation from small defects under compressive-compressive loading in SAE52100 bearing steel, a48, Y Hino, H Matsunaga (Fukuoka Univ)	Fracture Toughness Test of Epoxy Adhesive Dissimilar Joint with Various Adhesive Thicknesses, a55, M Afendi, T Teramoto (Univ Tsukuba)	Evaluation of Interfacial Strength for Polyimide Film/ Si Substrate Structure by Nanoindentation Method, a237, K Kozuki, K Kishimoto (Tokyo Tech)		
9:40 AM	Fatigue propagation and non-propagation of small shear cracks in bearing steel, a87, D Koyanagi, M Endo, H Matsunaga (Fukuoka Univ)	An Iteration Method for Singular Fields around an Interface Edge of Elastic/Power-law Hardening Materials Joint, a95, MA Kowser, Y Arai, W Araki (Saitama Univ)	Identification of Thin Films Elastic Material Parameters from Indentation Test, a235, J Prou, K Kishimoto, T Adachi (Tokyo Tech), A Constantinescu (Ecole Polytech)	Quantitative Dependence of the Effective Modulus of Particle Reinforced Composites on the Partially-Debonding Damage, a16, Y Jiang, K Tohgo, Y Shimamura (Shizuoka Univ)	
10:00 AM	Effect of Pre-strain on the Crack Initiation Life for SUS 304L Steel, a197, I-H Jeong, H-J Shim, J-I Jeon, J-K Kim (Hanyang Univ)	Characteristics of Singular Stress Distribution at a Vertex in Transversely Isotropic Piezoelectric Dissimilar Material Joints, a132, MS Islam, H Koguchi (Nagaoka Univ Tech)	Interfacial Fracture Toughness of Thermal Barrier Coatings by Indentation Test Method, a1, M Arai (CRIEPI)	Simplified Analysis of Mechanical Instability in Three-Dimensional Atomic Components and Its Application to a Nanoscale Crack, a140, T Shimada, S Okawa, T Kitamura (Kyoto Univ)	
10:20 AM	The Effect of Crack in the Different Aspect Axis of the Different Border Radius, a37, K Hagiwara, T Ezumi (Shibaura Inst Tech)		Indentation Method to Extract Anisotropic Plastic Property, a91, A Yonezu, K Yoneda, H Hirakata, K Minoshima (Osaka Univ)	Mesoscale Simulation on Mechanical Properties of Polymer Blend, a233, K Suzuki, T Adachi, K Kishimoto (Tokyo Tech)	
10:40 AM-11:00 AM	<b>Refreshment Break at room 413</b>				

### Saturday Late Morning, November 14

Room	501	502	416+417	414+415	411+412
Session	<b>5. Fatigue Strength, Fatigue Crack (2)</b> Chairs: H Matsunaga (Fukuoka Univ), L Gao (XJTU)	<b>9. Adhesion, Joint, Boundary Face (2)</b> Chair: Y Arai (Saitama Univ)	<b>4. Measurement Technique, Characteristic Evaluation (2)</b> Chair: A Yonezu (Osaka Univ)	<b>10. Micro Nano Mechanics (2)</b> Chairs: Y Ozawa (Fukushima Univ), K Saitoh (Kansai Univ)	<b>6. Strength at Elevated Temperature, Life Prediction</b> Chairs: S Zhu (Fukuoka Inst Tech), M Kawai (Univ Tsukuba)
10:40 AM					Analysis and Prediction of Creep Viscoelasticity in Nylon 6 Clay Hybrid Nanocomposites, a33, Y Nakazato, S Zhu (Fukuoka Inst Tech), A Usuki, M Kato (Toyota Central R&D Labs)
11:00 AM	Effect of Absorbed and Environmental Hydrogen on Short Fatigue Crack Propagation near Threshold in Low Alloy Steel, a104, Y Ueda, M Kubota, Y Kondo (Kyushu Univ)	Effects of Material Combination on the Interface Stress Intensity Factors, a99, X Lan, N Noda, Y Zhang (Kyushu Inst Tech), K Oda (Tokuyama College Tech)	Development of a Real-Time Monitoring Method of Electroplating Current Densities in LSI Fabrication by Inverse Analysis of Electric Potentials, a236, Y Kishimoto, K Amaya (Tokyo Tech)	Wear Characteristics of Bacterial Cellulose / Polymer Composite Materials, a125, Y Ozawa (Fukushima Univ), T Kikuchi (Fukushima Tech Centre)	Effect of Variation in Stress Ratio on the Fatigue Life of a Woven Quasi-Isotropic CFRP Laminate, a22, K-M Yang, M Kawai (Univ Tsukuba)
11:20 AM	Effect of Hydrogen Concentration on Fretting Fatigue Strength, a123, M Kubota, Y Kondo (Kyushu Univ)	Study of Peeling Behavior of Adhesive Films for Semiconductor Packages, a231, N Saiki, K Inaba, K Kishimoto (Tokyo Tech)	Sensor Fusion by Neural Network and Wavelet Analysis for Drill-Wear Monitoring, a142, K Prasopchaichana (Burapha Univ), O-Y Kwon (Inha Univ)	Mechanisms of Deformation of Lamellar Block Copolymers, a232, E Chabert (Ecole Polytech), V Racherla (IIT Kharagpur), O Lopez Pamies (Stony Brook), J-Y Cavaille (INSA Lyon), P Ponte Castaneda (UPenn)	Off-Axis Tensile and Compressive Creep Rupture Strengths of a Carbon Fiber Woven Roving Fabric Laminate at High Temperature, a23, H Miyazawa, M Kawai, Y Takaada (Univ Tsukuba)
11:40 AM	Role of Fatigue Slip Bands on Hydrogen Diffusion in Type 304 and 316L Stainless Steels, a47, K Hayashida, H Matsunaga, M Endo (Fukuoka Univ)	Influence of Interlayer Thickness on the Intensity of Singular Stress Field in 3D Three-Layered Joints under an External Load, a112, M Nakajima, H Koguchi (Nagaoka Univ Tech)		Atomistic Simulation on the Relation between Amorphization and Crystalline Transformation in Ni-Ti Alloys, a144, K Saitoh (Kansai Univ), K Kubota (Komatsu)	High Temperature Fatigue Properties of Micro Spark Coated Ni-Base Superalloy, a109, R Kamma, M Sakaguchi, M Okazaki (Nagaoka Univ Tech)
Noon					Creep-Fatigue Interaction: Its Mechanism and Predictability, a131, Y Takahashi (CRIEPI)
12:20 PM - 1:30 PM	<b>Lunch</b>				

**Saturday Early Afternoon, November 14**

Room	501	502	416+417	414+415	411+412
Session	<b>5. Fatigue Strength, Fatigue Crack (3)</b> Chairs: Y Uematsu (Gifu Univ), J Komotori (Keio Univ)	<b>9. Adhesion, Joint, Boundary Face (3)</b> Chairs: T Kusaka (Rits Univ), R Matsuzaki (Tokyo Tech)	<b>2. Structural Design, Optimal Design (1)</b> Chairs: X Yang (HUST), J Szweda (VSB-TU Ostrava)	<b>8. Biomaterial, Medical Material (1)</b> Chair: A Sakuma (TUAT)	<b>7. Environmental Strength, Corrosion (1)</b> Chair: N Nagashima (NIMS)
1:30 PM	Fatigue Crack Propagation Behavior Relevant to Inhomogeneity in the Friction Stir Weld, a94, T-H Tra (Nagaoka Univ Tech), M Seino (Nikkei Niigata Co), M Sakaguchi, M Okazaki (Nagaoka Univ Tech)	Surface Modification using Nanoimprint Lithography for Improving Joint Strength of Composites, a63, R Matsuzaki, T Suzuki, A Todoroki, Y Mizutani (Tokyo Tech)	Topology Design of Planar Structure Subjected to Mechanical and Thermal Loads, a108, Y Ootao, N Hayami, M Ishihara (Osaka Prefec Univ)	The Effect of Hydrogel Layer on Cartilage Surface for Lubrication, a46, T Tokuyama, Y Morita, K Tanaka, T Katayama, E Nakamachi (Doshisha Univ)	Monte Carlo Simulation of Stress Corrosion Cracking on Smooth Surface of a Sensitized Stainless Steel Type 304 under Non-uniform Stress Condition, a90, H Suzuki, K Tohgo, Y Shimamura (Shizuoka Univ), G Nakayama, T Hirano (IHI)
1:50 PM	Overload Effects on the Small Crack Like Defect on Threshold Stress Intensity Factor Range $\Delta K_{th}$ of Steel, a78, H Mizukami (NHK Spring), K Hanaori, K Takahashi (YNU), A Tange (NHK Spring), K Ando (YNU)	Axisymmetrical Stress and Strength Analysis of Epoxy-Steel Composite Cylinders under Torsional Loads, a170, L Liao, T Sawa (Hiroshima Univ), T Hasegawa (Toyota)	CFX Thermal Analysis of Electromotor Frame, a228, Z Poruba, J Szweda (VSB-TU Ostrava)	Effects of BaTiO <sub>3</sub> Piezoelectric Thin Film Coating on Bone Marrow Cell, a38, Y Tateyama, Y Morita, K Tanaka, T Katayama, E Nakamachi (Doshisha Univ)	Stress Intensity Effect on Solid State Oxidation on Ni-Cr Alloy with Different Chromium Concentents, a133, I Tirtom, NK Das, T Shoji (Tohoku Univ)
2:10 PM	Fatigue Crack Growth of Ti-48Al-2Mn-2Nb Intermetallics by Centrifugal Spray Deposition, a58, W Chen (FJUT), K Peng, K-W Qian (FZU), H Gu (XJTU)	Experimental Characterization of Mode I Stable Fracture Behavior in Adhesive Joint of Composite Materials under Impact Loading, a139, H Ismail, T Kusaka, Y Nomura, A Watanabe (Rits Univ), A Kataoka, S Matsumoto (Toray)	Thermal Properties Improving of the Electromotor Frame, a227, J Szweda, Z Poruba (VSB-TU Ostrava)	Assessment of Mechanical Stability and Safety for Fully Edentulous Maxilla with Dental Implants, a111, T Arahira, M Todo, Y Matsushita, K Koyano (Kyushu Univ)	On Coupled Analysis of Hydrogen Transport Using ABAQUS, a229, C-S Oh, Y-J Kim, K-B Yoon (Korea Univ)
2:30 PM	Effect of Large Static Pre-strain on Low Cycle Fatigue Life of Type 316 Austenitic Stainless Steel, a110, T Ido, J Komotori (Keio Univ)	Evaluation of Interfacial Strength with Micro Cutting System, a143, M Omiya (Keio Univ), I Nishiyama (Daipia Wintes)	Solutions to Hertzian Contact Problem Between Wheel and Rail for Small Radius of Curvature, a215, S Soemantri (Toyohashi Univ Tech)	Bioactive Microarc Oxidized TiO <sub>2</sub> -Based Coatings on Titanium Alloy for Biomedical Implication, a148, Y Zhou, D Wei (Harbin Inst Tech)	
2:50 PM – 3:10 PM	<b>Refreshment Break at room 413</b>				

**Saturday Late Afternoon, November 14**

Room	501	502	416+417	414+415	411+412
Session	<b>5. Fatigue Strength, Fatigue Crack (4)</b> Chairs: M Okazaki (Nagaoka Univ Tech), H Tobushi (Aichi Inst Tech)	<b>1. Stress-Strain Analysis (1)</b> Chairs: S Biwa (Kyoto Univ), M Kobayashi (Univ Shiga Prefec)	<b>2. Structural Design, Optimal Design (2)</b> Chairs: Y Ootao (Osaka Prefec Univ), Z Poruba (VSB-TU Ostrava)	<b>8. Biomaterial, Medical Material (2)</b> Chair: Y Zhou (Harbin Inst Tech)	<b>7. Environmental Strength, Corrosion (2)</b> Chairs: X Cai (SJTU), M Nakatani (Osaka Univ)
3:10 PM	Fatigue Behaviour of Stainless Steel with Alumina Ceramics Coatings Sprayed by HVOF and Atmospheric Plasma Spray, a2, H Okada, Y Uematsu, K Tokaji (Gifu Univ), Y Kobayashi, Y Harada (TOCALO)	Modeling of Flexural Wave Propagation in a Plate with Contacting Interfaces, a117, S Biwa (Kyoto Univ), S Kishiwada (Honda), C Inerra (Univ Bordeaux 1), E Matsumoto (Kyoto Univ)	A Fundamental Study on Static Strength Improvement of CFRP Bolted Joints by Increasing Friction Force, a19, T Katsumata, Y Mizutani, A Todoroki, R Matsuzaki (Tokyo Tech)	Tensile Testing with Vessel for Pressure Dependency Evaluation of Viscoelasticity of Biological Soft Tissues, a115, M Ogasawara, A Sakuma (TUAT), T Tadomi (MHI), R Kobari (TUAT)	Effect of Water Uptake on the Fatigue Behavior of a Quasi-Isotropic Woven Fabric Carbon/Epoxy Laminate at Different Stress Ratios, a24, Y Yagihashi, M Kawai (Univ Tsukuba), H Hoshi, Y Iwahori (JAXA)
3:30 PM	Effect of Strain-Induced Martensitic Transformation on Fatigue Behaviour in Type304 Stainless Steel, a6, T Murasaki (Gifu Univ), M Nakajima (Toyota Coll Tech), Y Uematsu, M Akita, K Tokaji (Gifu Univ)	Numerical Analysis of the Occurrence of Strain Nonuniformity in Thin-Walled Cylinders Subjected to Cyclic Torsion, a118, M Kobayashi (Univ Shiga Prefec), K Uetani (Kyoto Univ)	Design of Porous Structure for Low-k Dielectrics in Electronic Devices, a146, S Miyagawa, M Omiya (Keio Univ)	Effect of Pulse Electric Field Stimulation on Chondrocytes, a39, S Nakasuji, Y Morita, K Tanaka, T Tanaka, E Nakamachi (Doshisha Univ)	Improvement in the Corrosion Resistance of Austenitic Stainless Steel 316L by Ion Implantation, a50, X Cai, K Feng (Shanghai Jiao Tong Univ)
3:50 PM	Effect of DLC Film on Fatigue Behaviour in Alloy Tool Steels, a93, K Maruchi, Y Uematsu, K Tokaji (Gifu Univ)	Control of Dynamic Characteristics of a Circular Saw by Axi-symmetric Tensioning, a128, M Ishihara, Y Ootao (Osaka Prefec Univ), N Noda (Shizuoka Univ)	Numerical Investigation of Gradation Effects on Rutting Deformation in Asphalt Pavement, a153, X Yang, J Shang, A Yin, Y Ye, C Chen (HUST)	Evaluation of Mechanical Function of Articular Cartilage using Electric Impedance Method, a40, N Okumura, Y Morita, K Tanaka, T Katayama, E Nakamachi (Doshisha Univ)	Nano-meso-macro Strength Analysis of Work-Hardened Low-Carbon Austenitic Stainless Steel SUS316 (NG), a67, N Nagashima, M Hayakawa (NIMS)
4:10 PM	Fatigue Strength of Nanocrystalline Nickel Electrodeposited Thin Films, a116, K Tanaka, Y Isokawa, H Asano, H Kimachi (Meijyo Univ)	Strain-rate Dependency of Plateau Region of Low-density Porous Material in Compression Process and Its Constitutive Representation, a114, M Watanabe, A Sakuma, M Kawashima (TUAT), K Abe, K Abe (MHI), S Nagaki (TUAT)	Microstructural Evolution and Mechanical Behaviors of Ultrafine-Grained Pure Titanium by Repeated Rolling, a200, Q Sun, G Li, H Wang, L Xiao, J Sun (XJTU)	Clarification on Mechanical Characteristic in State of Stress of Osteoarthritis of the Hip Joint using Stress Freezing Method, a60, N Maezaki, T Ezumi, M Hachiya (Shibaura Inst Tech)	Influence of Activation Energy for Irreversible Hydrogen Desorption on the Fatigue Strength Degradation in Cold Drawn Eutectoid Steels, a119, M Nakatani, M Sakihara, K Minoshima (Osaka Univ)
4:30 PM	Fatigue Properties of Casted TiNi Shape-Memory Alloy Brain Spatula, a174, H Kitamura (Aichi Univ Educ), H Tobushi (Aichi Inst Tech), Y Yoshimi (Yoshimi Inc), K Date, K Miyamoto (Aichi Inst Tech)	Numerical Simulation of Dynamic Deformation in Solid-Fluid System by Monolithic Approach of FEM using Three-element Solid Model, a137, W Murai, A Sakuma, M Tani, M Ogasawara (TUAT)		Monte Carlo Simulation Study of a Red Blood Cell Cytoskeleton Under AFM Loading, a230, D Lee, K Kishimoto, A Ikai, K Inaba (Tokyo Tech)	Oxidation Behavior and Cracking Susceptibility of Ni-Cr Alloys in Dry Steam and Inert Gas under Extremely-low Oxygen Partial Pressure, a122, H Abe, Y Kenmoku, T Endo, T Miyazaki, Y Watanabe (Tohoku Univ)
4:50 PM	<b>End of Day Two Session</b>				

**Sunday Early Morning, November 15**

Room	501	502	416+417	414+415
Session	<b>3. Fracture Mechanics, Crack Growth (1)</b> Chairs: NK Das (Tohoku Univ), H Inoue (Tokyo Tech)	<b>1. Stress-Strain Analysis (2)</b> Chairs: T Furukawa (Univ Ryukyus), J-M Gong (NJUT)	<b>4. Measurement Technique, Characteristic Evaluation (3)</b> Chairs: T Miyake (NMIRI), I Jeon (Chonnam National Univ)	<b>11. Smart Material, Smart Structures (1)</b> Chair: DS Lee (Tokyo Tech)
9:00 AM		On Dispersion Properties of Lamb Waves in a Functional Graded Piezoelectric Piezomagnetic Material (FGPPM) Plate, i1, X Cao, F Jin (XJTU), K Kishimoto (Tokyo Tech)		
9:20 AM	Numerical and Experimental Evaluation of Fracture Behavior of Notched CNT/Polymer Composites, a35, Y Kuronuma, Y Shindo, T Takeda, F Narita (Tohoku Univ)	Time History Analysis of Stresses in Functionally Graded Thick Hollow Cylinder Subjected to Thermal Shock Loading Using Analytical Method, a239, M Tahani, S Hosseini, A Safari (Ferdowsi Univ Mashhad), A Todoroki (Tokyo Tech)	Characterization of Cryogenic Interlaminar Shear Strength of Composite Insulation Systems for Superconducting Magnets in Fusion Reactors, a36, M Miura, Y Shindo, T Takeda, F Narita, S Watanabe (Tohoku Univ), N Koizumi, A Idesaki, K Okuno (JAEA)	Torsional Deformation and Fatigue Properties of TiNi SMA Thin Strip, a175, E Pieczyska (Polish Academy Sci), H Tobushi, K Date, K Miyamoto (Aichi Inst Tech)
9:40 AM	Creep-Fatigue Crack Propagation Behavior of Sn-3.0Ag-0.5Cu Lead-Free Solder, a7, T Woo, H Park (POSTECH), M Sakane (Rits Univ), K Kobayashi (Kyocera SLC)	Thermal Stress Analysis for Ceramics Stalk having Protuberance in the Low Pressure Die Casting Machine, a101, Hendra, N Noda Y Takase, W Li (Kyushu Inst Tech)	An Analysis of Thermal Insulation Characteristics of Polymer Composites Reinforced by Unidirectional Natural Fiber, a149, K Liu, H Takagi (Univ Tokushima), Z Yang (XJTU)	Superelastic Deformation Behavior of TiNi SMA under Various Loading Rates, a177, E Pieczyska (Polish Academy Sci), H Tobushi (Aichi Inst Tech), W Nowacki (PAS), K Date, K Miyamoto (Aichi Inst Tech)
10:00 AM	Role of Hydrogen on Initial Stage Oxidation of Transitional Metal Surfaces at 325 0C, a130, NK Das, T Shoji (Tohoku Univ)	Effect of Finite Velocity of Thermal Wave on Stress Focusing Phenomena, a135, T Furukawa, T Sueyoshi (Univ Ryukyus)	Thermal Conductivity Behavior of Natural Fiber-Reinforced Composites, a163, R Osugi, H Takagi, K Liu, Y Gennai (Univ Tokushima)	Transverse Surface Waves in Functionally Graded Materials Carrying a 6mm Piezoelectric Material Layer, a124, Z-H Qian, S Hirose (Tokyo Tech)
10:20 AM	A Fracture Mechanics Approach for Evaluating the Effects of Heat Aging on Fatigue Crack Growth of Vulcanized Natural Rubber, a138, P Soma (KKC), N Tada, M Uchida (Okayama Univ), Y Taga, K Nakahara (KKC)	Formation process and final microstructure of ASB in 40Cr steel at 2~6 km/s impact velocity, a120, G-A Li, L. Zhen, C-Y Xu, B-Y Zhang, W-Z Shao, (Harbin Inst Tech)	Residual Stresses Depending on Changes of Temperature and Water Absorption in Carbon Fiber/Epoxy Single-Fiber Model Composites, a100, T Miyake, M Futamura, N Ohno (NMIRI)	
10:40 AM-11:00 AM	<b>Refreshment Break at room 413</b>			

**Saturday Late Morning, November 15**

Room	501	502	416+417	414+415
Session	<b>4. Measurement Technique, Characteristic Evaluation (4)</b> Chairs: H Takagi (Univ Tokushima), W Chen (FJUT)	<b>1. Stress-Strain Analysis (3)</b> Chairs: K Sasaki (Hokkaido Univ), M Nishida (Kobe City College Tech)	<b>3. Fracture Mechanics, Crack Growth (2)</b> Chair: H Inoue	<b>11. Smart Material, Smart Structures (2)</b> Chairs: M Omiya (Keio Univ)
11:00 AM	Multimirror for The Broad Band Parallel X-ray Beams Based on Laboratory X-ray Source – Theory and Design, i2, T Nguyen, K Kim (Chonnam National Univ), D Vavrik (ITAMCAS), I Jeon (Chonnam National Univ)	Strength of VGCF/Al Composites for High Thermal Conductivity, a102, K Fukuchi, K Sasaki (Hokkaido Univ) T Iwanishi (SPP), A Kakitsuji (TRI OSAKA)	Size dependent fatigue lifetime of supported Cu thin films, a21, J Zhang, X-J Sun, G Liu, X-D Ding, L Gao, J Sun (XJTU)	Reduction of Mode Conversion Wave of Time-of-Flight Diffraction Method, Y Kurokawa, H Inoue, Y Moriya (Tokyo Tech)
11:20 AM	Proposal of an Estimation Method of Welding Residual Stresses in Welded Pipes for Risk-Analysis-Based Assurance of Structural Integrity, a15, M Ogawa, H Nakamura (Tokyo Tech)	X-ray Residual Stress Measurement of Fiber Reinforced Plastic Composite, a158, M Nishida, M Kitamura (Kobe City College of Tech), T Hanabusa (Univ of Tokushima), T Matsue (Niihama National College of Tech)	Micro-damage behavior of AZ91 magnesium alloy impacted by projectiles with velocities of 2-3 km/s, a121, L Zhen, J-Y Ji, G-A Li, C-Y Xu, W-Z Shao (Harbin Inst Tech)	Evaluation of Actuation Behavior of Ionic Polymer Metal Composite, a147, T Kobayashi, H Yanamori, M. Omiya (Keio Univ)
11:40 AM	Extrusion strengthening and its numerical simulation of CuW80/Cu Alloy solid contact material, a57, Y Huang, W Chen (FJUT)	Stress Analysis and Strength Evaluation of Scarf Adhesive Joints With Dissimilar Adherends Subjected to Static Bending Moments, a204, D He, T Sawa, T Iwamoto, Y Hirayama (Hiroshima Univ)	A innovative method for preparation of low hydrogen content aluminum cast materials, a34, J Zeng, Z Xu, J He (Guangxi Univ)	Bending Characteristics of Shape Memory Composite with SMA and SMP, a176, H Tobushi (Aichi Inst Tech), S Hayashi (SMP Tech) K Date, K Miyamoto (Aichi Inst Tech)
Noon				Torsional Wave Localization in Rod-like Band Gap Materials with Random Disorder, a241, Y-Z Wang, F-M Li (Harbin Inst Tech), K Kishimoto (Tokyo Tech)
12:20 PM – 1:30 PM	<b>Lunch</b>			
1:30 PM – 2:15 PM	<b>Plenary Lecture at 501 by Prof. Siegfried Schmauder, University of Stuttgart, Germany</b> “Multiscale simulation of precipitation embrittlement in steels” pl6			
2:15 PM – 3:00 PM	<b>Prof. Kikuo Kishimoto, Tokyo Tech, Japan</b> “Some Contributions of Materials and Mechanics Research in Energy and Environmental Issues”			
3:00 PM – 3:20 PM	<b>Refreshment Break at room 413</b>			

## Sunday Afternoon, November 15

Room	501	502	416+417	414+415
Session	<b>5. Fatigue Strength, Fatigue Crack (5)</b> Chair: R Ebara (Hiroshima Inst Tech), Y Kurokawa (Tokyo Tech)	<b>1. Stress-Strain Analysis (4)</b> Chairs: T Inoue (Fukuyama Univ), Y-X Wang (HUST)	<b>13. Material Application, Control</b> Chairs: K Nakasa (Hiroshima Kokusai Gakuin Univ), H Ren (Inner Mongolia Univ Sci Tech)	<b>11. Smart Material, Smart Structures (3)</b> Chairs: H Furukawa (Yamagata Univ), J-C Leong (National Pingtung Univ Sci Tech)
3:20 PM	Notch effect on fatigue strength of die cast AM60 magnesium alloy, a32, MS Bhuiyan, Y Mutoh (Nagaoka Univ Tech), T Koike (Yamaha Motor), Y Miyashita, Y Otsuka (Nagaoka Univ Tech)	Transient Thermoelastic Analysis for a Multilayered Hollow Cylinder with Piecewise Power Law Nonhomogeneity, a103, Y Ootao (Osaka Prefec Univ)	Characteristics and Development of Shape-Memory Alloy Heat Engine, a173, H Tobushi, K Date, K Miyamoto (Aichi Inst Tech)	Evaluation of the effect of fluctuation of absolute value for diagnostic accuracy of fatigue crack monitoring via statistical diagnostic method using correlation between sensors, a105, A Iwasaki, A Morimoto (Gunma Univ), M Yatomi (IHI), T Kimura (IHI Inspection & Instrumentation)
3:40 PM	Fatigue Strength and Surface Damage of Copper Processed by Twelve Passages of Equal Channel Angular Pressing, a41, Y Ando, M Goto (Oita Univ), S-Z Han (KIMS), K-J Euh (KIMM), N Kawagoshi (Kagoshima Univ), S-S Kim (GNU)	Transient Thermoelasticity of a Laminated Composite Hollow Sphere with an Interlayer of Functionally Graded Material, a107, Y Ootao, K Maruo, M Ishihara (Osaka Prefec Univ)	Deformation Characteristics of Surface Layer with Fine Protrusions Formed by Sputter-Etching of Steels, a126, K Nakasa (Hiroshima Kokusai Gakuin Univ), X Yan (Yamatomec Inc), M Yoshida, T Sumomogi (Hiroshima Kokusai Gakuin Univ)	High-Strength Gels: Their Network Structures and Mechanical Properties Studied with Scanning Microscopic Light Scattering, a199, H Furukawa (Yamagata Univ)
4:00 PM	Fatigue strength of polypropylene composite materials, a68, T Hiraba, K Takeda (Kagawa Univ), N Yamasaki, R Ebara (Hiroshima Inst Tech), K Shinagawa, M Hirai (Kagawa Univ), I Morimoto, T Nonomura (Tokushima Prefec Industrial Center)	Metallo-thermo-mechanical Coctitive Relationship for Thermo-plastic Material sublected to Phase Transformation---Theory and the Applications , a106, T Inoue (Fukuyama Univ)	Recrystallization Microstructure Character of Annealing Strip Steel Based on the Compact Strip Production, a161, H Ren, H Wang (Inner Mongolia Univ of Sci and Tech), D Li (CSP Plant of Baotou Iron & Steel (Group)), Z Jin (Inner Mongolia Univ of Sci & Tech)	Influence of Uniform Radial Magnetic Field on Smart Magnetic Fluids, a52, L-M Fu, C-H Tai, Y-C Chen, JC Leong, (National Pingtung Univ Sci Tech)
4:20 PM	Fatigue Strength of Notched Bars of Austenitic Stainless Steel under Cyclic Torsional Loading without and with Static Tension, a89, J Narita, K Tanaka (Meijo Univ), A Hashimoto (Toyoda Gosei), N Egami (Meijo Univ)	Effect of solution treatment temperature on the trigger stress of the stress induced martensite transformation in Ti-10V-2Fe-3Al alloy, a42, W Chen, Z Song, Q Sun, L Xiao, W She, J Sun (XJTU)		On Smart Magnetic Fluids In Externally Applied Non-Uniform Radial Magnetic, a53, H-H Tsai, L-W Chen, C-H Tsai, H-H Huang (National Pingtung Univ Sci Tech)
4:40 PM	Fatigue Strength Evaluation of Structural Steel Sheets Repaired by Plastic Working Method, a88, N Hattori, L He, K Nakayama, S Nishida (Saga Univ)	Analysis of the Welding Deformation of Resistance Spot Welding for Sheet Metal with Unequal Thickness, a154, Y-X Wang, P Zhang (HUST), Z-G Hou (YTU), Y Wu (HUST)		
5:00 PM	<b>End of Day Three Session</b>			
6:00 PM	<b>Banquet (Marine Rouge Dinner Cruising)</b>			



**Monday Early Morning, November 16**

Room	416+417	414+415
Session	<b>12. Impact Problem</b> Chairs: M Omiya (Keio Univ), K Inaba (Tokyo Tech)	<b>Stress-Strain Analysis and Fatigue</b> Chairs: C Makabe (Univ Ryukyus), T Horibe (Ibaraki Univ)
10:00 AM	Crushing Strength of Aluminum Honeycomb with Thinning Cell Wall, a79, N Ogasawara, N Chiba (NDA), E. Kobayashi, Y Kikuchi (Yokohama Rubber)	Stresses in an Elastic Strip Having an Eccentric Circular Inclusion Subjected to Tension, a75, T Horibe (Ibaraki Univ), E Tsuchida (Saitama Univ), N Kusano (Hitachi)
10:20 AM	Transient Analysis of Functionally Graded Thick Hollow Circular Cylinders Under, a240, M Tahani, T Talebian (Ferdowsi Univ Mashhad), A Todoroki (Tokyo Tech)	Effect of local plastic deformation on fatigue life of holed specimen of aluminum alloy 2024-T3, a113, C Makabe, M-S Rana, M Fujikawa (Univ Ryukyus)
10:40 AM	Evaluation on Elastic Modulus of Closed-Cell Aluminum Alloy Foam, a238, F Triawan (Tokyo Tech), T Adachi (TUT), K Kishimoto (Tokyo Tech), T Hashimura (KOBELCO)	Characterization and Modeling of Off-Axis Fatigue Failure of Notched Fiber Metal Laminate GLARE-3, a20, T Sato, M Kawai (Univ Tsukuba)
11:00 AM	Evaluation of Compressive Properties of PLA/PBAT Polymer Blends, a145, T Yamamura, M Omiya (Keio Univ), T Sakai (Tokyo Metropolitan Univ), P Viot (ENSAM)	Admissible stress fields for a semi-infinite planar heap of granular medium possessing self-weight in loose condition, a196, S Heng, T Pipatpongsa (Tokyo Tech), S Tachibana (Saitama Univ)
11:20 AM	Simple Approach for Statistical Distribution of Residual Strength in Composite Structure Subjected to Low Velocity Impact, a201, J-I Jeon, M-J Shin (Hanyang Univ), K-W Kang (Kunsan National Univ), J-K Kim (Hanyang Univ)	Granular Arch Shapes under Criterion of Silo Effect, a202, T Pipatpongsa, S Heng (Tokyo Tech), S Kanazawa (Kobe Univ)
11:40	<b>Closing of conference</b>	