

Poster Presentation List

1. Process

2023.10.20

No.	Name	Affiliation/ Company	Presentation Title
P1-01	Yoshiaki Toda	NIMS	New Microstructure Design of Heat-resistant Titanium Alloys with Property Improvements Using Super Thermal Field
P1-02	Satoshi Emura	NIMS	Introduction of Millefeuille-like α/β Layered Structure into Ti-Mo Alloy through Thermomechanical Treatment
P1-03	Phuangphaga Daram	NIMS	Compositionally Graded Titanium to Aluminum Processed by Laser Powder Bed Fusion Process: Microstructure Evolution and Mechanical Properties
P1-04	Sachiko Hiromoto	NIMS	Development of Apatite and LDH Coatings of Mg Alloys Depending on the Application
P1-05	Yusuke Tsutsumi	NIMS	Improvement of Corrosion Resistance of Type 420J2 Martensitic Stainless Steel by Laser thermal Processing
P1-06	Akitsu Shigetou	NIMS	Low-Temperature and Non-vacuum Surface Modification for Anti-Hydrolysis Hybrid Bonding
P1-07	Machiko Ode	NIMS	Observation and Numerical Prediction of Concentration Distribution at Cast Coating Interface of Solid Pt, Ir, Re Using Liquid Ni-Based Alloys
P1-08	Yuuji Kimura	NIMS	Delayed Fracture of Ultra-high Strength Steel Processed by Warm Tempforming
P1-09	Susumu Takamori	NIMS	Microstructures and Mechanical Properties of Fe–15Mn–10Cr–8Ni–4Si Seismic Damper Cast Alloy
P1-10	Hiroshi Honda	NIMS	Evaluation of Laser Absorptivity of Titanium Powder by Using Ray Tracing
P1-11	Takuma Saito	NIMS	Effect of Cooling Rate From Sub-Solvus Solution Treatment Temperature on Hardness in Powder Metallurgy Ni-Co-base Superalloy
P1-12	Masahiro Kusano	NIMS	Three-Dimensional Cellular Automaton for Grain Growth of Inconel 738LC in Laser Powder Bed Fusion
P1-13	Tomonori Kitashima	NIMS	Fabrication of Single Crystals in Laser Powder Bed Fusion Using a Flat-Top Laser
P1-14	Makoto Watanabe	NIMS	Materials Integration for Laser Powder Bed Fusion Process
P1-15	Rintaro Ueji	NIMS	Anisotropy of Uniaxial Yield Stress of Pearlitic Steel Caused by Compressive Deformation
P1-16	Ryuta Yurishima	University of Ibaraki	High-throughput Search for High-performance Materials Using Composition-graded Bulk Specimens
P1-17	Naoe Hosoda	NIMS	Biomimetic Reversible Interconnection

2. Characterization

No.	Name	Affiliation/ Company	Presentation Title
P2-01	Takahito Ohmura	NIMS	Nano-mechanical Characterization for Multi-scale Modeling in Mechanical Behavior of Metallic Materials
P2-02	Tomotaka Hatakeyama	NIMS	Microstructure of Modified 9Cr-1Mo Steel Manufactured by Laser Powder Bed Fusion
P2-03	Fumiyoshi Yoshinaka	NIMS	Hierarchical Fatigue Damage Mechanism and Development of Fatigue-resistant Alloy
P2-04	Mainak Saha	Indian Institute of Technology Madras	On the Three-dimensional Atomic Scale Characterisation of Nano-Scale B2 Phase in Ni-Alloyed Fe-Mn-Al-C Low-density Steel
P2-05	Hidetoshi Somekawa	NIMS	Effect of Grain Boundary Segregation On Mechanical Properties in Mg Alloys
P2-06	Viola Paul	NIMS	Effect of Yttrium Addition on the Nanoindentation Behavior at Mg-Y Alloy Grain Boundaries
P2-07	Tomoya Nagira	NIMS	Application of Friction Stir Welding for Fe-Mn-Si Alloy
P2-08	Silvia Pomes	NIMS	Elevated Temperature Exploration of Mechanical Behavior in Zr-based Bulk Metallic Glass through Nanoindentation Testing
P2-09	Susumu Meguro	NIMS	Thermoelectric Generation by Joining Interface Control of thermocouple Metals
P2-10	Digvijay Singh	NIMS	Unveiling the Transformation Pathways of Hierarchical $\gamma_{90} - \epsilon_{\text{twin}} - \alpha'$ Triple Phase Structure Formation at $\epsilon - \epsilon$ Martensite Intersection
P2-11	Norimitsu Koga	Kanazawa University	Tensile Properties and Deformation Behavior at Low Temperatures in Ferrite and Austenite Duplex Stainless Steel With Various Grain Sizes
P2-12	Wenqi Mao	Japan Atomic Energy Agency	Excellent Combination of Strength and Ductility of an Ultrafine-grained Stainless Steel at Cryogenic Temperatures Studied by in Situ Neutron Diffraction
P2-13	Seiichiro Ii	NIMS	Static and Dynamic Characterization of Grain Boundary-dislocation Interaction
P2-14	Wu Gong	Japan Atomic Energy Agency	Microstructure Characterization through <i>in Situ</i> Neutron Diffraction with Diffractometer TAKUMI
P2-15	Kazuho Okada	NIMS	Improvement of Resistance Against Hydrogen Embrittlement by Carbon Segregation at Prior Austenite Grain Boundary in As-Quenched Martensitic Steels
P2-16	Ivan Gutierrez	NIMS	Development of Analysis Methods for Sem-based Techniques and X-Ray Contrast Tomography: Application to Strain Localization Phenomena and Hydrogen-induced Effects on Plasticity in High-strength Steels
P2-17	Tatsuya Ito	Japan Atomic Energy Agency	In Situ Neutron Diffraction Study on Deformation Behavior of Hydrogen-charged SUS310S Austenitic Steel
P2-18	Toru Hara	NIMS	Advanced FIB-SEM Serial-sectioning Techniques Dedicated for 3D-EBSD Analysis
P2-19	Jiangwei Liu	NIMS	High Thermal Stability for Boron-Doped Diamond Field-effect Transistors

P2-20	Ryunosuke Harada	University of Hyogo	Effects of Temperature and Strain Rate on Mechanical Properties in FeMnNiCoCr High Entropy Alloy
P2-21	Sangmin Lee	NIMS	Deformation Behavior and Microstructure of Dual-phase CoCuNi Alloy Processed by High-pressure Torsion and Subsequent Annealing
P2-22	Kaito Kikuchi	Nagaoka University of Technology	Development of a New Age-hardenable Magnesium Alloy Sheet with Excellent Room Temperature Formability and Corrosion-resistance
P2-23	Hideaki Nishikawa	NIMS	Short Fatigue Crack Growth Mechanism in Ni-Co Based Superalloy at Elevated Temperatures and in Oxidative Atmospheres
P2-24	Dayuan Liu	NIMS	Estimation of Mechanical Properties of Alloys Using Neighboring Indentation Test
P2-25	Takahiro Sawaguchi	NIMS	Evidence Supporting Reversible Martensitic Transformation under Cyclic Loading on Fe-Mn-Si-Al Alloys Using in Situ Neutron Diffraction
P2-26	Seunghyeon Kim	NIMS	Corrosion Behavior of Gd ₂ Si ₂ O ₇ / Sc ₂ Si ₂ O ₇ with CMAS Melts for Environmental Barrier Coatings
P2-27	Nozomu Adachi	Toyohashi University of Technology	Mechanical Response of Pure Fe Having Different Grain Sizes under Tensile Stress
P2-28	Kyoko Kawagishi	NIMS	Construction of a Materials Database for Aeroengine Materials

3. Evaluation

No.	Name	Affiliation/ Company	Presentation Title
P3-01	Kimiyoshi Naito	NIMS	Anisotropic Properties of Polyacrylonitrile- and Pitch-based Carbon Fibers
P3-02	Sheng Xu	Tohoku Univeristy	Examining the Cryogenic Elastocaloric Effect in A Cu-Al-Mn Alloy
P3-03	Kota Sawada	NIMS	Effect of Segregation of Alloying Elements on Creep Strength in Heat Resistant Steels
P3-04	Ayako Ikeda	NIMS	High-throughput Evaluation Methods for Ni Based Superalloys Using Composition and Process Temperature Graded Bulk Samples
P3-05	Hideki Katayama	NIMS	Development of Prediction Technology for Corrosion Damage Risk of Infrastructures
P3-06	Jonathon Tanks	NIMS	Durable Biomass/Polypropylene Composites for Improving Sustainability in Structures
P3-07	Kentaro Wada	NIMS	Gaseous Hydrogen Embrittlement of Pure Nickel and Copper Nickel Alloys
P3-08	Satoshi Morooka	Japan Atomic Energy Agency	Magnetic Order and Phase Transformation in Fe-Mn-C Alloy at Cryogenic Temperature
P3-09	Elango Chandiran	NIMS	Activation of Non <a> Type Dislocations and Damping Capacity Improvement by Deformation Induced Martensitic Transformation in Mg-Sc Alloy
P3-10	Rion Abe	Iwate University	3D Visualization of Hydrogen Trapping Sites in Al-Zn-Mg Alloys
P3-11	Christopher Mercer	NIMS	Evaluation of the Mechanical Response of Functional Lattice Structures
P3-12	Chihiro Tabata	Waseda University	Measurements of Interfacial Strength between Sulfur-segregated Al ₂ O ₃ and Ni-Al Single Crystal Alloy Using Nanoindentation
P3-13	Hiroyuki Oguma	NIMS	Elucidation of Fatigue Fracture Mechanism Focusing on the Environment and Interface in Materials
P3-14	Yuhei Ogawa	NIMS	Beneficial Aspect of Hydrogen on the Mechanical Property of Fe-Cr-Ni Austenitic Steels
P3-15	Kensuke Miyahara	NIMS	Small Ball Rebound Hardness Tester and Progress for Japanese Industrial Standards (JIS)
P3-16	Houichi Kitano	NIMS	Advancement of Welding Technology through the Use of AI Technology
P3-17	Masao Hayakawa	NIMS	Review of Damage Evaluation and Remanufacturing for Material Sustainability
P3-18	Yoshinori Ono	NIMS	Developing a Foundation for Material Evaluations to Support R & D on Liquefied Hydrogen-related Equipment
P3-19	Yoshiharu Murase	NIMS	Corrosion Resistance Evaluation of Structural Materials by Multimodal KFM-EBSD-EDS Analysis

P3-20	Kazuya Shimoda	NIMS	High Temperature Fatigue Properties of SiC/SiC Composites via Novel Production Route Using Sandwich Prepreg Sheets
P3-21	Kotaro Doi	NIMS	Electrochemical Measurement of Hydrogen Diffusion Coefficient for Mg-based Materials

4. Modeling

No.	Name	Affiliation/ Company	Presentation Title
P4-01	Taichi Abe	NIMS	Computational Phase Diagrams and their Database Based on CALPHAD
P4-02	Taiyo Maeda	Yokohama Natonal University	Numerical Prediction of Strength Scatter in Ceramics Based on Microstructural Information
P4-03	Mariko Kadowaki	NIMS	Numerical Simulations to Analyze the Corrosion Behavior of Metallic Materials
P4-04	Ikuo Ohnuma	NIMS	Segregation Engineering of Structural Materials by CALPHAD Method
P4-05	Arkapol Saengdeejing	NIMS	Developing Thermodynamic Database from First-principles Calculations Data
P4-06	Mostafizur Rahman	Yokohama National University	Kinetic Parameters for Strength Recovery in Self-healing Ceramics
P4-07	Dmitry S. Bulgarevich	NIMS	Representative Volume Element Reconstruction and Crystal Plasticity Modeling of Stress-strain Curves for Additively Manufactured Hastelloy X
P4-08	Ryoji Sahara	NIMS	Design of High Temperature Materials Using a Multiscale Simulation Without Empirical Parameter
P4-09	Xiaoyang Zheng	NIMS	Reprogrammable Mechanical Metamaterials
P4-10	Aaditya Manjanath	NIMS	Probing Chemical Reaction Dynamics through Excited-state Time-dependent GW Simulations
P4-11	Jiaxin Zhou	NIMS	Computational Morphology Design of Duplex Structure Considering Interface Debonding
P4-12	Masato Wakeda	NIMS	Atomistic Modeling of Nanoscale Interaction between Dislocation and Grain Boundary in BCC and FCC Metals
P4-13	Sukeharu Nomoto	NIMS	Seamless Numerical Simulation for Laser Powder Bed Fusion Process by Lattice Boltzmann and Multi-phase Field Methods
P4-14	Junping Du	Osaka University	A Neural Network Accelerated Kinetic Monte Carlo Simulation of the Evolution of Chemical Order in CrCoNi Medium-entropy Alloy
P4-15	Vickey Nandal	NIMS	Artificial Intelligence and Expert Cooperative Design of Non-isothermal Aging Heat Treatment Schedules for Improving 0.2% Proof Stress in $\gamma - \gamma'$ Binary Ni-Al Alloys
P4-16	Shihao Zhang	Osaka University	Highlier Efficient Neural Network Interatomic Potential of α -iron and Hydrogen System
P4-17	Hitoshi Izuno	NIMS	Tandem Bayesian Model: Connection of Weld Joint Creep Performance and Welding Conditions Considering HAZ Shape Factor
P4-18	Shinnosuke Yanagawa	NIMS	Multiscale Finite Element Analysis of Yield Point Phenomenon In Ferrite-pearlite Duplex Steels
P4-19	Keiya Sugiura	Nagoya University	3D Microstructure Reconstruction of Metallic Materials Using Generative Adversarial Networks