

iHSM III Poster Presentation Schedule

Set-up: 16:00-17:00, July 21(Tue), 2026

Presentation: 17:30-19:00, July 21(Tue), 2026

Tear-down: 19:00-20:00, July 21(Tue), 2026

Venue: Monterosso Hall, B1 Floor

No.	Symposium title	Code
1	<u>Mechanical Behavior</u> and Strengthening Mechanisms in Heterostructures	MB
2	Architected Heterostructures through <u>Additive Manufacturing</u>	AM
3	<u>Modeling and AI-Driven</u> Design of Heterostructures	MA
4	<u>Advanced Characterization</u> and In situ Observation of Heterostructures	AC
5	<u>Engineering and Functional</u> Applications of Heterostructured Materials	EF
6	Heterostructures for <u>Extreme Environments</u>	EE
7	<u>New Frontiers</u> in Heterostructured Materials Design	NF
8	<u>Interface-Driven Phenomena</u> in Heterostructures	IP

#	Abstract Code	Abstract ID	Presenter's Name	Presenter's Affiliation	Title
1	MB-PO-001	26	Nan Qu	Harbin Institute of Technology	Effects of Crystalline Region Size on Mechanical Behavior and Strengthening Mechanisms of Heterostructured Bulk Carbon Materials
2	MB-PO-002	32	Yuito Maeda	Kanazawa University	Microstructure and mechanical properties of groove-rolled Cu-Zn system alloy bars
3	MB-PO-003	41	Juyeon Han	Kookmin University	Synergistic Strengthening of LPBF-processed A356 Alloy via Interstitial Oxygen
4	MB-PO-004	53	Mengya Liu	Northeastern University	Significant Strengthening Effect and Microstructure Control Mechanism of IN718 Alloy Treated by Thermally-assisted Laser Shock Peening
5	MB-PO-005	55	Yinfei Ju	Southeast Univeristy	A facile route for fabricating 3 GPa steel wires from tempered martensite via moderate strain
6	MB-PO-006	56	Yu Wang	Southeast university	Effect of stacking fault energy on tensile and fracture performance in 2507 super duplex stainless steel
7	MB-PO-007	62	Wooyoung Lee	Kookmin university, Dankook university	Effect of annealing temperature on thermal expansion and cryogenic mechanical properties of low-thermal-expansion Co22.2Cr6.2Fe48.8Ni17.8Cu5.0 medium-entropy alloy
8	MB-PO-008	71	Xiaoyue Ta	Shanghai University	Compositional and microstructural heterogeneities achieve an excellent strength–ductility combination in medium-Mn steel
9	MB-PO-009	80	Sari Maeda	Kyoto University	Microscale Heterogeneity of Deformation in Ferrite + Martensite Dual-Phase Steel Revealed by High-Resolution Digital Image Correlation
10	MB-PO-010	81	Taeyean Kang	Kookmin University	Microstructure and Magnetic Properties of Fe-Based Soft Magnetic Ribbons: The Role of Cu Content and Ultrasonic Treatment
11	MB-PO-011	90	Jae-Yong Cheon	Korea Institute of Materials Science (KIMS)	Exceptional Ultra-Cryogenic Tensile Properties of Carbon-Containing CoCrFeMnNi High-Entropy Alloy Fabricated by Laser Powder Bed Fusion
12	MB-PO-012	91	Jeong-Woo Lee	Korea Institute of Materials Science (KIMS)	Ultra-Low Temperature Mechanical Properties of High Mn Steel
13	MB-PO-013	92	Issei Baba	Kyoto University	Heterogeneous Strain Distribution and Slip Localization in Bimodal Polycrystalline Titanium Characterized by High-Resolution DIC
14	MB-PO-014	95	Tae-Yeon Park	Kumoh National Institute of Technology	Deformation Mechanisms and Solid Solution Strengthening in Cold-Rolled Lightweight Ti-rich Ti-Hf-Nb Medium-Entropy Alloys with Zr and V Additions
15	MB-PO-015	100	Soomin Kim	Kookmin University	Rapid Formation of Nano-scale Al ₄ C ₃ Carbides in Al–C ₆₀ Composites via Laser Surface Treatment
16	MB-PO-016	108	Jiwon Lee	Kookmin University	Microstructure and Thermo-Mechanical Properties of nAl/SiC–Diamond–cBN Hybrid Aluminum Matrix Composites Fabricated by NISFAC and LIPAX Processes
17	MB-PO-017	109	Won Hui Jo	Kookmin University	Influence of intercritical annealing temperatures on the extremely low-carbon dual phase steels
18	MB-PO-018	113	Ryuto Futami	Ritsumeikan University	Microstructure and Mechanical Properties of FeCoNiCrTi High-Entropy Alloys Fabricated by Spark Plasma Sintering
19	MB-PO-019	119	Gaku Tanigawa	Ritsumeikan University	Effect of Grain Size Distribution on Mechanical Properties of Heterostructured SUS316L Stainless Steel Fabricated by Nano-Milling
20	MB-PO-020	120	Maksihi Morita	Ritsumeikan University	Fabrication and Mechanical Properties of Ti–TiC Heterostructured Composites with Controlled TiC Phase Fraction

21	MB-PO-021	132	Yo Han Lee	Kyungpook National University	Effect of Al content in AZ-series Mg alloy melts on microstructure and mechanical properties of LMD-derived Mg-Ti composites
22	MB-PO-022	146	Bo Hyun Park	Kyungpook National University	Gradient heterogeneous Mg-Ti-Al composites with enhanced hardness and corrosion resistance via liquid metal dealloying and Al-melt treatment
23	MB-PO-023	155	Jae Hyun Park	Pusan National University	Effect of Heat Treatment on the Fatigue Life of 304 Stainless Steel Corrugated Pipes
24	MB-PO-024	158	Seok-Hwan Hong	Pohang University of Science and Technology	Influence of heterogeneous γ' -Ni ₃ (Ti, Al) precipitation on the mechanical properties in Fe-Ni-Co based low-CTE alloy
25	MB-PO-025	165	Kwang-Hyeok Lim	Korea Institute of Science and Technology	Creep behavior of Additively Manufactured 316L Stainless Steel with Tailored Microstructure
26	MB-PO-026	167	Jeong Hun Lee	Kyungpook National University	{10-12} Extension Twin-Mediated Heterostructure Design in Mg Alloy via Laser Shock Peening
27	MB-PO-027	172	Yongsuk Jeong	Pohang University of Science and Technology	Role of non-recrystallized ferrite in heterostructured Ti-Nb added HSLA steel
28	MB-PO-028	173	Xiao Xu	Shanghai Dinaji University	Abnormal Grain Growth Behavior and Mechanism of Longitudinal Welds in 2196 Al-Cu-Li Extrusions (for presentation only
29	MB-PO-029	176	Wangeon Kwon	Kongju National University	Effect of Ultrasonic Nanocrystal Surface Modification on the Microstructural Evolution and Mechanical Behavior of a Co-Cr-Fe-Ni-Mo High-Entropy Alloy at Ultracryogenic Temperature
30	MB-PO-030	195	Dong Hyuk Kim	POSTECH	Effect of Al and/or Mo on mechanical properties of high-Mn steels for cryogenic applications
31	MB-PO-031	196	Gi-Hyun Lim	Mokpo National University	Formation of Heterogeneous Microstructure in AA1050/AA6061 Layered Sheets Processed by Cold Roll-Bonding and Subsequently Annealed
32	MB-PO-032	199	Dong-Kyu Oh	Seoul National University of Science and Technology	Microstructural Factors Governing Mechanical Properties of Intercritically Annealed Low-Carbon Dual-Phase Steels
33	MB-PO-033	202	Su-Hwan Choe	Seoul National University of Science and Technology	Effect of Quenching-Induced Microstructural Heterogeneity on Mechanical Properties and Hydrogen Embrittlement of Large-Size Bolt Steels
34	MB-PO-034	211	Eonjun Choi	Korea Institute of Materials Science	Effect of Ultrasonic Nanocrystal Surface Modification-Induced Residual Stress Variations on the Yield Behavior of Nimonic 80A Alloy
35	MB-PO-035	213	Hyeon-Jun Heo	Mokpo National University	Enhancement in Mechanical Properties of AA1050/AA6061 Layered Sheet by Differential Strain Cold Roll-Bonding
36	MB-PO-036	215	Doowon Jeong	Pohang University of Science and Technology	Relationship Between Mechanical Properties and Chemical Short Range Ordering of the Nitrided Layer of Austenitic Stainless Steels
37	MB-PO-037	216	Hyunwoo Pak	Sunchon National University	Microstructural and Mechanical Property Changes in Al-Zn-Mg-Cu Alloy with Non-metallic Elements due to Precipitate Behavior upon CNT and SiC Addition
38	MB-PO-038	218	Sangmin Park	Kongju National University	Influence of V Addition on Precipitate Refinement, Subgrain Formation, and Superplastic Behavior in Al-Cr-Fe-Ni-Ti Fe-Based High-Entropy Alloys

39	MB-PO-039	220	Seongjin Im	Kongju National University	Effect of Through-Thickness Microstructural Variations on Hydrogen Embrittlement Resistance of X65 Seamless Pipeline Steel Tempered at 700°C
40	MB-PO-040	224	Yeongju Lee	POSTECH	Data-Driven Alloy Design for Fire-Resistant Steels: Unveiling High-Temperature Strengthening Mechanisms in Bainite–Martensite Heterostructures
41	MB-PO-041	227	Yunji Cho	Korea Institute of Materials Science	Thermal Stability of Surface Gradient Microstructures and Compressive Residual Stresses Induced by Ultrasonic Nanocrystalline Surface Modification and Laser Peening in Rene95
42	MB-PO-042	229	Hong-Min Kim	Sunchon National University	Solid Particle Tribological Behaviors of Gas-nitrided Ti-48Al-2Cr-2Nb Alloy
43	MB-PO-043	231	mincheol Kwon	Kongju national university	Microstructure and high-temperature mechanical properties of Fe-Cr-Ni-Al-Ti ferritic alloys with V addition
44	MB-PO-044	232	Choi Jin-sol	Korea Institute of Materials Science (KIMS)	Simultaneous Improvement of Strength, Ductility, and Machinability in Ti–Ce Alloy through Thermomechanical Grain Refinement
45	MB-PO-045	234	Min-Jun Song	Sunchon National University	Analysis of Low Temperature Vibration Complex Fatigue by Heat Treatment Control of Ti-6Al-4V Alloy
46	MB-PO-046	239	Hyeon-Woo Son	Korea institute of materials science	Enhancement of Thermal Stability in Al-Mg-Si-Cu Alloys via Microalloying: Insights into the Cu-Diffusion-Retardation Mechanism
47	MB-PO-047	241	Minho-An	KOREA INSTITUTE OF MATERIALS SCIENCE	Effect of Heat Treatment on the Microstructure and Forgeability of Non-Heat-Treated Steel in Multi-Stage Cold Forging
48	MB-PO-048	245	Sanghee Jeong	Kyunghee University	Nanoscale Y?발 Oxide Dispersion Strengthening in L-PBF Ti-6Al-4V via Mechanofusion Powder Coating
49	MB-PO-049	250	Younggeon Lee	Ajou University	Heat-treatment dependent compressive deformation and fracture behavior of Grade 5 Ti//high-entropy alloy heterostructures
50	MB-PO-050	275	Yunjong Jung	Kongju National University	Composition-dependent deformation behavior of refractory high entropy alloys
51	MB-PO-051	280	So-Hee Jeon	Hanbat National University	Machine Learning-Driven Correlation Between Welding Parameters and Microstructural Evolution in High-Strength Armor Steel
52	MB-PO-052	281	Young Seop So	Pukyong National University	Multiscale chemical ordering enables superior strength–ductility synergy in a medium-entropy alloy
53	MB-PO-053	283	Hong Bin Park	Pukyong National University	Quantitative Analysis of Local Strain Partitioning in Fine-Grained Dual-Phase Steels Using Nano-speckle μ -DIC
54	MB-PO-054	297	Dong Jun Lee	Korea Institute of Materials Science	Influence of Surface Gradient Structures Induced by Ultrasonic Nanocrystalline Surface Modification and Laser Peening on the Fatigue Behavior of Lap-Welded DP600 Steel Joints
55	MB-PO-055	302	Do Hyang Kim	Seoul National University	Martensitic transformation and enhancement of mechanical property in Nb-Ni-Ti alloy by healing treatment
56	MB-PO-056	303	Jonghyeong Cho	Pohang University of Science and Technology (POSTECH)	Stretchable MXene/Silver Nanowire (MXAg) Electrodes for Biophotonic Applications of Stretchable Light-Emitting Diodes

57	MB-PO-057	304	Mun Sik Jeong	Hanyang University	Overcoming the Strength-Hydrogen Embrittlement Trade-Off in Medium-Mn Steels via a Damage-Tolerant Directional Lamellar Morphology
58	MB-PO-058	308	Zimo He	Tsinghua University	Regulating precipitation behavior in an ultrahigh-strength, high-molybdenum maraging steel via laser powder bed fusion
59	MB-PO-059	315	TaehyeokChoi	Seoul National University	Crystal Plasticity-Based Prediction of Surface Defect Formation in IF Steel with Near-Surface Microstructural Heterogeneity
60	MB-PO-060	317	Seyeop Lee	Seoul National University of Science & Technology	Microstructure and Mechanical property of Stellite 6–WC Composites sintered by Hot Pressing Process
61	MB-PO-061	323	Geon-Woo Baek	Kongju National University	Oxygen-Induced Heterogeneity and Mechanical Behavior of Directed Energy Deposited CoCrFeMnNi High-Entropy Alloy
62	MB-PO-062	331	Jeong-Hun Kim	Changwon National University	Heterostructured lightweight steel with wear resistance manufactured by L-PBF deposition
63	MB-PO-063	341	Zheng Liu	Hebei University of Technology	Precipitate-tailored planar slip delivers unprecedented ductility in high-strength β -Ti
64	AM-PO-001	14	Yechan Sung	Gyeongsang National University	Preventing Microcracks Between Directed Energy Deposited Hastelloy X and IN792DS Substrate by Adding IN625 Buffer Layer
65	AM-PO-002	15	Hyeonyong Yu	Gyeongsang National University	Thermal and Mechanical Properties of Inconel 625 / Al ₂ O ₃ Functionally Graded Material Manufactured by Directed Energy Deposition
66	AM-PO-003	63	Dowon Kim	Kookmin University	Inverse Design of Aluminum Alloys for Additive Manufacturing Using In-house DED Data and Machine Learning
67	AM-PO-004	88	Haiyang Li	POSTECH	Architectural Influence of Spacer Integration on Thermoelectric Device Performance
68	AM-PO-005	94	HEO JAEHYEOK	Kumoh National Institute of Technology	Analysis of the Correlation between Hierarchical Microstructures and Mechanical Performance in L-PBF Processed 316L Stainless Steel for High-Reliability Applications
69	AM-PO-006	103	Minseong Park	Pohang University of Science and Technology (POSTECH)	All-Inorganic Micro-Scale Additive Manufacturing Enabled by Nanoparticle Assembly
70	AM-PO-007	161	Jaehyeong Kim	Pusan National University	Effect of Composite Powder Preparation Methods on Microstructure and Properties of TiC-Reinforced AlSi10Mg Fabricated by Directed Energy Deposition.
71	AM-PO-008	174	Hyewon Jeon	Kongju National University	Effect of Compositional Trade-off Between Cr and Mo on the Corrosion Resistance of Additively Manufactured Co-Cr-Fe-Ni-Mo High-Entropy Alloys
72	AM-PO-009	182	Seungyeon Lee	Korea Institute of Materials Science (KIMS)	Impact of build height on microstructure and mechanical properties of AlSi10Mg alloy fabricated by laser powder bed fusion
73	AM-PO-010	183	Ji Sang Yoon	Korea Institute of Materials Science (KIMS)	Effect of process parameters on the microstructure and magnetic properties of Fe-6.5 wt.%Si soft magnetic alloy fabricated by laser powder bed fusion
74	AM-PO-011	189	Haeum Park	Korea Institute of Materials Science (KIMS)	Extremely low-temperature tensile behavior of 316L stainless steel additively manufactured by laser powder bed fusion

75	AM-PO-012	190	Min Young Lee	Kookmin university	Directed Energy Deposition of A Medium Mn austenitic Steel:Influence of laser power on Mn heterogeneity and plastic deformation
76	AM-PO-013	191	Sungwook Kim	RIST	Microstructural Evolution and Tensile Properties of Ti-6Al-4V Engine Blade Preforms Fabricated by Hybrid DED–Hot Forging
77	AM-PO-014	198	Cho Hyeon Lee	Kookmin University	Elucidation of the Mechanisms of Enhanced Cryogenic Strength in Additively Manufactured 316L Stainless Steel
78	AM-PO-015	200	Ehsan Norouzi	Korea Institute of Science and Technology (KIST)	Engineering Antibacterial AISI 316L Stainless Steel via L-PBF Copper Integration
79	AM-PO-016	204	Yeon Woo Kim	Korea Institute of Materials Science (KIMS)	Correlation between process-induced microstructure and magnetic properties of Nd-Fe-B permanent magnets fabricated by laser powder bed fusion
80	AM-PO-017	212	Chanho Park	Korea Institute of Materials Science (KIMS)	Effect of bulk thickness on microstructure and properties of pure Cu parts fabricated by laser powder bed fusion
81	AM-PO-018	248	Taeyoon Kim	Pusan National University	Control of microstructure and properties via varying process parameters of L-DED processed Fe-17Mn-5Si-10Cr-4Ni (wt.%) shape memory alloy
82	AM-PO-019	266	Jongtae Kim	Korea Institute of Industrial Technology	Heterostructured Maraging Steel via Additive Manufacturing with Yttrium Addition
83	AM-PO-020	276	Sangwook Park Taehu Kang	Kyung Hee University	Microstructural Evolution of Cost-Effective L-PBF Ti–O Alloys Fabricated Using SiO ₂ -Coated Non-Spherical Ti Powders
84	AM-PO-021	291	Rohit Raj	Sunchon National University	Predicting Dilution Control and Particle Dissolution in Directed Energy Deposition: A Multi-Physics Framework for Process Optimization
85	AM-PO-022	292	Hyoung Seop Kim	POSTECH	Mitigating Mismatched Densification in Multi-Nozzle Extrusion-Based 3D Printing of Layered Heterogeneous Alloys
86	AM-PO-023	310	siyu chen	Tsinghua University	High Work-Hardening Steel Enabled by Cellular High-Carbon Austenite
87	AM-PO-024	312	Ran Cui	Tsinghua university	Heterostructure Design in High-Strength Steels via In-situ Thermal Cycling during Additive Manufacturing
88	AM-PO-025	342	Kanghyun Lee	Hanyang University ERICA	Material Extrusion of Cold plates using Pure Copper for the application of Advanced Thermal Management
89	MA-PO-001	39	Seoyeon Jeon	Kookmin University	Data-Driven Discovery and Experimental Validation of Strengthening Ternary Phases in Al-Cu-La Alloys
90	MA-PO-002	61	Seongu Han	Kookmin University	Label-efficient design of Fe-based soft magnetic alloys via semi-supervised active learning
91	MA-PO-003	75	Kyungwhan Lee	Kookmin university	Construction of a Combinatorial Dataset for Machine Learning-Assisted Design of 7xxx Series Aluminum Alloys
92	MA-PO-004	133	Jae Hur	Korea University	Predicting plateau slope in metal hydrides from first-principles: hydrogen energy and charge distributions in TiMn ₂ -based alloys
93	MA-PO-005	137	Hye-Ji Jo	Korea University	Atomistic simulation study of tramp element effects on liquid metal penetration in Fe–Cu–X systems
94	MA-PO-006	138	Jong-Hoon Park	Korea University	Molecular dynamics study of shape-memory property control in LPBF-processed Ni ₃ Ti alloys

95	MA-PO-007	159	Dong-Hyun Kim	Korea University	Twin boundary tilting in FCC Cu under tribological loading: A molecular dynamics study
96	MA-PO-008	219	Jinyeong Yu	Pusan National University	Self-Supervised Hysteresis Transformers for Process-Aware Fatigue-State Mapping
97	MA-PO-009	233	Sejin Park	Kookmin University	Interpretable On-Premise LLM Extraction for Ni-Based Superalloy Design
98	MA-PO-010	236	Yeji Won	Kookmin University	On-Premises LLM-Based Table Extraction with a Prompt Refinement Loop for Ni-Based Superalloy Literature
99	MA-PO-011	270	Won-Gyu Choi	Korea Electronics Technology Institute (KETI)	Theoretical Modeling of Interfacial Adhesion Design in Cu/(Mo,Nb) Alloy Heterojunctions
100	MA-PO-012	311	Hyeongseo Kim	Seoul National University	Microstructure-informed Crystal Plasticity Model for Predicting As-Printed Metals
101	MA-PO-013	338	Haksung Lee	Dong-A University	AI-Assisted Microstructure Generation for Phase-Transformation and Precipitation-Controlled Materials: From α/β -Si ₃ N ₄ to Haynes 282
102	AC-PO-001	40	Qiang Long	Central South University	Martensitic twin formation mechanisms and work hardening in TiZrHfTa refractory high-entropy alloys
103	AC-PO-002	145	Hanjun Yu	KIST	Observation and phase transition characteristics of Mg-Ni hydrides by in situ TEM
104	AC-PO-003	177	Soyeon Yoon	Kongju National University	Characterization of Deformed Microstructures in 304 Stainless Steel Using Electron Channeling Contrast Imaging
105	AC-PO-004	255	Daeho Kim	Korea Research Institute of Standards and Science	Correction of Laser Pulse Delay Effects in Laser Flash Analysis to Enhance Thermal Diffusivity Measurements for Thin and High-Thermal-Conductivity Materials
106	AC-PO-005	282	Seunghun Cha	Korea Institute of Industrial Technology, Kyung Hee University	Robust Pipeline for Estimating Morphological Orientation Fields
107	AC-PO-006	307	Yeon Ha Jo	Korea University	Atomic-scale analysis of Low Earth Orbit satellite materials exposed to atomic oxygen
108	AC-PO-007	327	Si Hyun Park	Pukyong National University	Noise-Robust ANN-Based Indentation-to-Tension Inverse Analysis Considering Experimental Measurement Uncertainty
109	EF-PO-001	10	Jeongmin Lee	Kongju National University	Effect of In-Situ Layer-by-Layer Compositional Grading on the Corrosion Resistance of Additively Manufactured Co-Cr-Fe-Ni-Mo High-Entropy Alloys
110	EF-PO-002	93	Yoonhyung Keum	Korea Institute of Industrial Technology, Kyung Hee University	Tailoring the Heterogeneous Main Phase of Ce-Substituted Nd-Fe-B Sintered Magnets via Prolonged Annealing in LRE-Based Diffusion
111	EF-PO-003	136	Heung Soo Lee	Korea Atomic Energy Research Institute	Heterostructured Metallic UO ₂ Microcell Composites for Thermal Conductivity Enhancement in Advanced Technology Nuclear Fuels
112	EF-PO-004	144	Seongjun Kim	Kyungpook National University	Correlation between Cu-Induced Crystallization Behavior and Soft Magnetic Performance in Fe-Based Amorphous Ribbons

113	EF-PO-005	151	Ye-Chan Seo	KIMS	Constitutive Law Development for Finite Element Analysis of Multi-Stage Deep Drawing Process for High-Capacity 46XX Cylindrical Battery Cell Cans
114	EF-PO-006	152	YongHo Kim	Korea Institute of Industrial Technology	Effects of Heat Treatment on the Microstructure and Mechanical Properties of Mg-Li Alloys
115	EF-PO-007	154	EunChan Ko	Chonnam National University, Korea Institute of Industrial Technology	Influence of Rare Earth Elements on Strength–Ductility Relationship in Mg–Li–Zn Alloys
116	EF-PO-008	160	HyoSang Yoo	Korea Institute of Industrial Technology	Effect of Mg Addition on the Microstructure and Mechanical Properties of Extruded Al-Li-Cu-Zr Alloys
117	EF-PO-009	164	ByeongKwon Lee	Korea Institute of Industrial Technology, Chonnam National university	Effects of Bi Content on Microstructure, Texture, and Mechanical Properties of Ultra-Lightweight Dual-Phase Extruded Mg-8Li Alloys
118	EF-PO-010	166	Sung Ju Han	Korea Institute of Science and Technology	Heterostructure-Driven Synergy in LaNi?? Coupled Hydrogen Storage and Catalytic Hydrogenation
119	EF-PO-011	175	Jungmin Yoon	Kongju National University	Microstructure and Electrochemical Properties of Deep-drawn Ni-plated Steel with Different Heat Treatments
120	EF-PO-012	203	Ho Hyeong Lee	POSTECH	Effect of Mn-enriched retained austenite led by chemical heterogeneity on hydrogen embrittlement in martensitic steel
121	EF-PO-013	205	Byoung Jun Jeon	Research Institute of Industrial Science and Technology	Surface-Roughness-Induced Heterostructure in 6.5%Si Electrical Steel
122	EF-PO-014	206	Hyunuk Jin	Research Institute of Industrial Science and Technology	Compositionally Heterostructured Fe-6.5%Si Electrical Steel Fabricated by a Powder Route: Si-Diffusion-Controlled Gradients for Cold-Rollability and Soft Magnetic Performance
123	EF-PO-015	209	Nuri Choi	Korea Institute of Materials Science	Optimized stress-relief in hot-rolled tungsten: interplay of prior strain and annealing conditions
124	EF-PO-016	235	Hyeon-Woo Yang	Sejong University	Surface-Guided Formation of CNF-Core/Si–SiOx-Shell Heterostructured Interphases for Fast-Charging Lithium-Ion Batteries
125	EF-PO-017	238	Seoung Uk Bae	KITECH/KORAM	Effects of Temperature and Pressure on the Kinetics and Mechanisms of Nickel Carbonylation
126	EF-PO-018	242	Sejin Jang	Kyungpook National University	Evaluation of Cutting Performance and Durability of Blades with different Microstructural Heterogeneity: WC-Co Composite, Stainless and Amorphous Blades
127	EF-PO-019	243	uijun ko	Korea Institute of Industrial Technology	Selective Recovery of Rare Earth Elements from Permanent Magnets in End-of-Life EV Motors via a High-Temperature Metal–Halide Dry Process
128	EF-PO-020	247	Hyeseong Choi	Kyungpook National University	Efficient Thermal Neutron Shielding of High-Density Fe-Based Amorphous Discs Fabricated Using Amorphous Powders With High Contents of Boron and Gadolinium

129	EF-PO-021	251	Cheon Hyun-seok	Korea Institute of Materials Science, Pusan National University	Influence of melt thermal rate treatment on the refinement and modification of β -Al ₅ FeSi phase in Al-7Si-0.35Mg (A356) casting alloy
130	EF-PO-022	253	Botto Addisu Boshe	Korea Institute for Rare Metals, Korea Institute of Industrial Technology & Convergence Manufacturing System Engineering, University of Science and Technology	Enhancing Energy Management in Electron Beam Smelting of Molybdenum: A Finite Element Analysis Approach
131	EF-PO-023	256	PERUMAL NAVEENKUMAR	Sejong University	Fabrication of SnFeS ₂ @C nanocomposite anode for lithium-ion battery applications
132	EF-PO-024	257	You Jin Lee	Ajou University	Cu–Si fraction-induced Cu ₀ /Cu δ + heterosites on multicomponent catalysts for CO ₂ RR
133	EF-PO-025	267	Munisamy Maniyazagan	Sejong University	Construction of SnS ₂ decorated carbon nanofiber-based composites as anode materials for lithium-ion batteries
134	EF-PO-026	268	Muhammad Ali Siddique	Korea Institute of Industrial Technology	Effect of Copper Wheel Surface Roughness (Ra) and Grinding Direction on Heterostructure Grain Formation and Magnetic Properties of Strip-Cast NdFeB Alloys
135	EF-PO-027	271	Myungsuk Kim	Korea Institute of Industrial Technology	Electrochemical Pulverization of End-of-Life Alloy Scrap for Efficient Recovery of Strategic Metals
136	EF-PO-028	272	Sungjae Ahn	Korea Institute of Industrial Technology	Phase Evolution and Hot Deformation Behavior of Sm–Co Multiphase Nanomagnets Processed by Melt Spinning and Spark Plasma Sintering
137	EF-PO-029	273	Geon-Woo Myeong	Hanbat National University	In-situ Growth of Metal-Organic Framework on Aluminum Alloy Substrate Toward Enhanced Metal-Polymer Interfacial Adhesion
138	EF-PO-030	274	Muhammad Hassan	Korea Institute of Industrial Technology	Effect of Ce Content on Microstructure and Hydrogenation Behaviour of Nd–Fe–B Strip Cast Alloys
139	EF-PO-031	278	Yongkwan Lee	Korea Institute of Industrial Technology / Korea University	Hybrid Carbothermic-SHS Process for Synergistic Recovery of Battery-Grade Lithium Hydroxide and Metallic Valuables from Waste LIB Cathodes
140	EF-PO-032	285	Serin Jeong	Korea Institute of Industrial Technology	Effect of Cooling Rate on Dy Diffusion Behavior of Dy–Al–Cu Diffusion Sources for Nd–Fe–B Sintered Magnets
141	EF-PO-033	298	Hanseon Bae	POSTECH	TiO ₂ Nanohelices Decorated with Homogeneous Au-Core Pd-Shell Nanocatalysts for Selective Toluene Gas Detection
142	EF-PO-034	305	Sang Won Lee	Korea University	Designing an ultra-high strength, low thermal expansion Super Invar alloy through γ' precipitation-mediated heterostructure and metastability engineering
143	EF-PO-035	324	Hyeonsoo Hwang	Seoul National University of Science & Technology	Effect of Nb ₂ AlC content on the Microstructure and Properties of Nb ₂ AlC MAX Phase-Reinforced Aluminum Matrix Composites
144	EF-PO-036	325	Do-Won Seo	POSTECH	Exploring High Manganese Steel within the Heterostructured Materials Framework: Cryogenic

					Evaluation and Engineering Validation for Weight Optimized LNG ISO Tank Containers
145	EE-PO-002	105	Jae-Ho Lee	Korea Institute of Materials Science (KIMS) Pusan National University	In-situ hydrogen embrittlement behavior of cryogenically rolled STS 316L stainless steel with deformation-induced BCC martensite
146	EE-PO-003	170	Sunjin Kim	hanbat national university	Analysis of Cyclic Oxidation Behavior of Si-Diffusion-Coated Hf-Containing High-Entropy Alloys
147	EE-PO-004	171	Joonsik Park	hanbat national university	Surface roughness and wear resistance behavior of aluminide-coated high-carbon steel
148	EE-PO-005	217	Hyeonseok Cho	POSTECH	Enhancing the corrosion resistance of Cu-alloyed and low-carbon steels via cerium-stabilized oxide layers
149	EE-PO-006	284	Jun Seok Lee	Pukyong National University	Mitigating discontinuous plastic flow at ultra-cryogenic temperatures through shearable L12 nano-precipitates
150	EE-PO-007	299	Hahun Lee	Korea University	Heterostructure-precipitate synergy enables ultrahigh strength and ductility at 4.2 K
151	EE-PO-008	306	Geonho Song	Hanyang University	Development of Invar Alloy/Martensitic Steel Composites for Spacecraft Applications
152	NF-PO-001	52	ammara Ayub	KIST	Coupling C-H and C-O bond activation to control HCHO over Pt/ZY-type Zeolite
153	NF-PO-002	85	Jihye Seong	Dankook University	Liquid metal dealloying-enabled heterostructured micro-scale 3D interconnected porous architecture on additively manufactured Ti-6Al-4V scaffolds
154	NF-PO-003	86	Hyeok Min Kwon	Dankook University	Surface heterostructuring of Ti-6Al-4V by Liquid Metal Dealloying: 3D bicontinuous and microporous architectures for improved CFRP joint performance
155	NF-PO-004	193	Semin Oh	Pukyong National University	APT specimen preparation method for nanomaterials through AZO film embedding
156	NF-PO-005	228	Sung-Tag Oh	Seoul National University of Science and Technology	Microstructure Characterization of W-Mo alloy powders prepared by ultrasonic spray pyrolysis
157	NF-PO-006	230	Jae Min Lim	Seoul National University	Dopant-Mediated Interface Engineering for Enhanced Adhesion of Ru/SiO ₂ Interconnect Structures
158	NF-PO-007	244	Taekyoung Kang	Pukyong National University	Mn Doping-Induced Lattice Distortion and Grain Boundary Segregation in SnSe Thermoelectrics: Correlation with Transport Properties
159	NF-PO-008	249	Taeyeon Kim	Korea Institute of Science and Technology (KIST)	Biodegradable MgO/MnO _x Nanozymes for Cascade ROS Scavenging via a Redox-Regenerative Catalytic Interface
160	IP-PO-001	96	Rui Jin	Dalian Jiaotong University	Tracing Interface-Driven Diffusion in MgO-Al ₂ O ₃ Reaction via Rod-Like Precursor Morphology
161	IP-PO-002	214	Sangguk Jeong	Hanwha Aerospace	A study on Liquation cracking susceptibility in the additively manufactured Inconel 718 alloy
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163	IP-PO-005	286	Jong-Bae Hwang	S-WELDING Co., Ltd.	Characteristics of Diffusion-Welded 316L Stainless Steel with a Near-Interface Chemical Gradient for PCHE Applications

164	IP-PO-006	290	Sungbin Park	Seoul national university	Interfacial Strengthening of Si/Amorphous Carbon Heterostructure Via Stress-Relieving Interlayer and Carbide Formation
165	IP-PO-007	326	Youngeun Jeong	Seoul National University of Science & Technology	Synthesis of Ti-based MAX Phase Using Intermetallic Compounds of Ti-Sn
166	IP-PO-008	330	Gangala Anil Kumar	Kongju National University	Interface-Driven Microstructural Evolution and Thermoelectric Transport Compensation in Hot-Deformed n-Type Bi ₂ Te _{2.7} Se _{0.3} Processed from Different Powder Size Fractions
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168	IP-PO-010	333	Dong Woo Kim	Kongju National University	Effect of interlayer design on interfacial reactions and mechanical properties of Ti/SUS304 brazed joints