

MMM12 Poster Presentation Schedule

Presentation Time

Poster Presentation 1: 17:30-19:30, Nov 10 (Tue), 2026

Poster Presentation 2: 13:00-15:00, Nov 11 (Wed), 2026

No.	Sympo. Code	Symposium title
1	QM	Quantum Mechanical Studies of Materials (including Jisoon Ihm Honorary Symposium)
2	AM	AI-driven Materials Discovery and Design
3	MD	Molecular Dynamics Simulation of Materials: From Machine Learning Interatomic Potential to Coarse-Grained Models
4	MM	Multiscale Modeling of Additive Manufacturing
5	FD	Failure and Damage in Extreme Environments
6	FM	Functional Materials Modeling for Energy
7	MS	Modeling of Soft Matter Systems and Polymer Composites
8	DD	Defect and Dislocation Microstructures in Metals and Alloys
9	MN	Modeling of Deformation and Mechanical Performance in Multi-Principal Element Alloys
10	MH	Modeling of Hydrogen Effects in Materials
11	MP	Multiscale Plasticity and Defect Dynamics: Microstructural Evolution for Structural Materials
12	AA	AI-Augmented Multiscale Simulations and Digital Workflows
13	IM	Integrated Modeling and Microstructural Characterization
14	HM	Heat and Mass Transfer Across Scales
15	DK	Defect Kinetics and Microstructures in Complex Concentrated Alloys under Thermomechanical and Radiation Extremes
16	TM	Theory and Modeling of Crystalline Interfaces
17	DS	Defect Segregation Modeling and Defect-driven Deformation in Materials
18	ME	Mesoscale Modeling of Microstructural Evolution: From Monte Carlo to Phase-Field Methods

Poster Presentation 1: 17:30-19:30, Nov 10 (Tue), 2026

#	Presentation No.	Abstract ID	Presenter	Title
1	PO-QM-38	38	Franco Moitzi	First-principle based description of defects in complex alloys with magnetic and compositional disorder
2	PO-QM-114	114	Evgeny Tararushkin	Vibrational and dynamic properties of water in cementitious AFm phases
3	PO-QM-222	222	Daniel F. Urban	Perspectives of Quantum Computing for Material Simulations
4	PO-QM-243	243	Fabienne Ribeiro	Tight-Binding study of the coupling between chemical and magnetic ordering in FeNi alloys
5	PO-QM-304	304	Léo Hallégot	A Magnetic Tight-Binding Monte Carlo Approach for Transition Metals at Finite Temperature
6	PO-QM-340	340	Woojin Jung	First-Principles Study of Vacancy-Assisted Helium Trapping in NbC and γ -Ni ₃ Nb Precipitates in Ni-Based Alloys
7	PO-QM-353	353	Yuki Yamashita	Probing Neighbor-Atom Effects on Adsorption over High-Entropy Alloy Surfaces Using Fractional Nuclear Charges
8	PO-QM-367	367	Konstantin V. Kravtsov	Raman Spectrum of Functionalized Graphene from First-Principles Calculations
9	PO-QM-395	395	Liutauras Kiltinavicius	Atomistic insight into the interactions of small molecules with the surfaces of CeO ₂ as a surrogate for PuO ₂
10	PO-QM-733	733	Yanmei Zang	Breaking the CO bridge trap: boron–transition-metal trimer clusters for efficient C–C coupling in CO ₂ reduction
11	PO-QM-739	739	Shubha Dubey	Phase-Segregation-Driven Heterostructure Formation and Interfacial Charge-Transfer Mechanism in Ba ₃ V ₂ O ₈ /BaFeO _{2.654} Oxides with Defect-Mediated Optical and Surface Photocatalytic Response
12	PO-QM-740	740	Jiwon Choi	AI-Based Generative Search for New Altermagnetic Candidates with Large Spin Splitting
13	PO-QM-743	743	Yuhyun Cha	Multiscale First-Principles Discovery of Emergent Topological Spin Textures in Monolayer Transition-Metal Dichalcogenides
14	PO-QM-767	767	Yoon-Gu Kang	Proximity-Induced Dirac Gap in Graphene at a Correlated Antiferromagnetic Interface
15	PO-MM-89	89	Kenji Nishimura	Compressive Deformation Anisotropy of 3C-SiC Nanoparticles: A Molecular Dynamics Study
16	PO-MM-115	115	Dowon Kim	Machine Learning-Based Alloy Design Using In-house DED Data: Prediction and Optimization of Hardness–Conductivity Trade-off in Aluminum Alloys
17	PO-MM-400	400	Saya Nakatani	Effect of interface anisotropy modeling on scan-strategy-dependent microstructure prediction in coarse-grained multi-phase-field simulations for LPBF
18	PO-MM-544	544	Yuta Arai	Beyond Spherical Powders: How Good Are Regular Polyhedral Particles in Powder Bed Fusion? A Digital Twin Science Study Using 3D-Printed Particles and DEM Simulations
19	PO-MM-564	564	Rei Miyawaki	In-situ Observation and Digital Twin Analysis of Melt Pool Dynamics under Laser Beam Irradiation of Stainless Steels
20	PO-MM-565	565	Jeong Woong Park	Shearable B2 ordering and delayed TRIP kinetics in an additively manufactured low-Mn Fe-Mn-Al-C lightweight triplex steel
21	PO-MM-570	570	Cho Hyeon Lee	Elucidation of the Mechanisms of Enhanced Cryogenic Strength in Additively Manufactured 316L Stainless Steel
22	PO-MM-607	607	Haeum Park	Role of Si-decorated cell structure in cryogenic tensile behavior of additively manufactured AlSi10Mg alloy
23	PO-MM-615	615	Ji Sang Yoon	Data-driven analysis of process parameters effects on defect formation in Ti-6Al-4V alloy fabricated by laser powder bed fusion
24	PO-MM-682	682	Seung-Hoon Lee	Microstructural characterization and design of interface in plasma-facing components manufactured by laser powder bed fusion
25	PO-MM-702	702	Min Young Lee	Directed Energy Deposition of A Medium Mn austenitic Steel: Influence of Laser Power on Mn heterogeneity and plastic deformation
26	PO-MM-741	741	Dae-Hyeon Kim	Effect of Manufacturing Route on the High-Temperature Oxidation Kinetics and Oxide-Scale Evolution of Haynes 214

27	PO-MM-749	749	SHIVAM TRIVEDI	Linking Process-Induced Microstructural Heterogeneity to Dynamic Deformation Behavior in Wire Arc Additive Manufactured Al-Si Alloy
28	PO-MM-751	751	Dinudaya Sandaru Palliyaguruge	Finite Element Analysis of Mechanical Behaviour of WAAM-Manufactured Lattice Structures
29	PO-FM-317	317	Seohee Jang	Intermetallic Core Effects on ORR Catalytic Properties of Pt-Shell Nanoparticles
30	PO-FM-318	318	Yeonwoo Do	Electrochemical Urea Synthesis via CO ₂ /NO Co-Reduction and Adsorption Behavior of Co-Ni-Cu Catalysts
31	PO-FM-501	501	Min Jun Kim	A pathway to p-type activation of Sb ₂ Se ₃ for highly efficient photovoltaic absorbers
32	PO-FM-551	551	Seo Jin Jang	First-principles Study of Structural Stability and Charge Compensation at the CsSnI ₃ /Cs ₂ SnI ₆ Interface
33	PO-FM-553	553	Jin Woong Park	Modeling Triazine-Functionalized Aluminum/Polypropylene Interfaces for Advanced Energy Storage Packaging
34	PO-FM-554	554	Yun Seok Jang	Theoretical Investigation of Pressure and Temperature-Dependent Polymorphic Phase Transitions in CsPbI ₃
35	PO-FM-728	728	Jiqi Xing	Determination of distinct Cr doping sites and their effects on tribological properties
36	PO-FM-746	746	XINYI HE	Eu-based Inverse-Perovskite Oxide with Low Lattice Thermal Conductivity and Promising Thermoelectric Properties
37	PO-MS-77	77	Sota Doniwa	Structure and Viscosity of Concentrated Polymer-Colloid Suspensions under Shear
38	PO-MS-207	207	Taisei Ueda	Tensile and flexural mechanics of self-assembled polymer nanocomposite films with polymer-grafted nanoparticles using coarse-grained molecular dynamics
39	PO-MS-316	316	Seokho Lee	Effect of Coordination Number and Hydrogen Variation on the Adsorption Energies of Pb-Labeled DOTA Complexes
40	PO-MS-360	360	Vladimir Deshchenya	Molecular dynamics simulations of sucrose infiltration into kaolinite nanopores: transport kinetics and surface interactions
41	PO-MS-370	370	Timur Guskov	Calcite wettability in crude oil/brine systems under reservoir conditions: Role of dissolved gases, asphaltenes, and salinity
42	PO-MS-421	421	Chang-Su Woo	Development of an Integrated Rubber Components Design Based on a Rubber Materials Property Database
43	PO-MS-489	489	Kaede Tomiyama	Drying-Induced Self-Assembly of Charged Polymer Nanocomposites Using Coarse-Grained Molecular Simulations
44	PO-MS-497	497	Kota Nishikawa	Analysis of Morphogenetic Mechanisms and Bifurcations in Tendrils
45	PO-MS-510	510	Kazuki Nakada	Evaporative Self-Assembly of Patchy Nanoparticles in Colloidal Droplets: A Molecular Dynamics Study
46	PO-MS-530	530	zhouxin	Preparation and Performance Study of Natural Polysaccharide-Based Multifunctional Hydrogels for Neural Injury
47	PO-MS-537	537	Yuya Nagasoko	A Molecular Dynamics Study of the Influence of Nanosheet Surface Heterogeneity on Thermal Transport in Polymer Nanocomposites
48	PO-MS-724	724	Sota Doniwa	Structural Relaxation and Mechanical Response of Polymer-Grafted Nanoparticle-Stabilized ㄱ Droplets under Compression
49	PO-AA-85	85	Hyunkyung Choo	A Topology-Aware Multiscale Surrogate for Long-Time Dynamics of Entangled Polymer Melts
50	PO-AA-96	96	Hannes Holey	Multiscale Simulation of Lubricated Nanoasperity Contacts
51	PO-AA-112	112	Daniele Lanzoni	Learning stochastic dynamics with generative adversarial networks: quantitative reproduction of lattice kinetic Monte Carlo simulations of surface dynamics
52	PO-AA-137	137	Seungchang Han	Many-Body Effects on the Coverage-Dependent CO Adsorption on Cu(111)
53	PO-AA-140	140	Suyeon Yoo	Potential-Dependent Kinetic Modeling of Electrochemically Induced Cu Surface Reconstruction
	PO-AA-152	152	Sachin Rangaswamy	AI-Augmented Multiscale Digital Workflow for TCP Phase Risk Prediction and Alloy Optimisation in Directed Energy Deposition: A Bayesian Framework Connecting DFT, CALPHAD, and CFD
54	PO-AA-204	204	Chanjin Kim	Machine-Learning-Driven Exploration of Copper Oxide Precursor Evolution under Reducing Conditions
55	PO-AA-355	355	Alexander Whittle	Markov-Switching VAR for Molecular Dynamics Surrogate Modelling
56	PO-AA-411	411	Marvin Poul	landau: an open source library for thermodynamic equilibria
57	PO-AA-542	542	Seonghwan Kim	CALPHAD-Guided Prediction of Hot-Deformation Behavior in Steels

58	PO-AA-550	550	Eun Ha Shin	AI Agent for Inverse Estimation of Defect Parameters in Perovskite Solar Cells Using J–V Curves
59	PO-AA-745	745	Raynol Dsouza	A generalized mean-field bond model for anharmonic thermodynamics of complex crystals
60	PO-IM-133	133	Soomin Kim	Influence of High-Energy Ball Milling on the Thermal and Mechanical Behavior of Ti–Nb Alloys
61	PO-IM-162	162	Jaehun Kim	Microstructural Evolution and Strain Partitioning during TRIP Behavior Investigated by Micro DIC, In Situ EBSD, and CPFEM
62	PO-IM-225	225	Rikuto Hori	Three-dimensional fracture-mechanics analysis of hydrogen-assisted cracking in metastable austenitic stainless steel by in-situ synchrotron nano-tomography
63	PO-IM-538	538	Siwon Park	Unveiling the Role of Te Lone-Pair States in Amorphous Te-based Ovonic Threshold Switching Device for Energy-Efficient Neuromorphic Applications
64	PO-IM-560	560	Daichi Tanaka	Identification of Critical Resolved Shear Stresses (CRSSs) for polycrystalline as-cast Mg–Zn–Y alloys based on lattice strain development
65	PO-IM-600	600	Hyunyoung Park	Short-Range Ordered GP Zones in Al–4Cu Alloy Analyzed by Mechanical Testing and Multi-Zone Axis TEM
66	PO-IM-752	752	BHANU PRATAP SINGH	Exercising a differential latent hardening approach for comprehending the temperature dependent evolution of crystallographic texture in high nitrogen steels
67	PO-HM-111	111	Jiwon Lee	Strengthening behavior of aluminum matrix composites containing hybrid reinforcements
68	PO-HM-194	194	chunye ma	Microscopic Kinetics of Water Adsorption in Metal-organic Frameworks
69	PO-HM-202	202	Yuanyuan Wang	Low-grade Heat driven Ion Transport through 2D MXene Channels
70	PO-ME-51	51	Suehaeng Sung	Impact of Activation Energy Uncertainty on Chemical Reaction Networks
71	PO-ME-101	101	Shunji Tanaka	Data assimilation between continuum phase-field and atomistic phase-field-crystal simulations for accurate Ostwald ripening prediction
72	PO-ME-130	130	Ayano Yamamura	Data assimilation for determining interfacial energy anisotropy and polycrystalline orientations from dendrite growth morphologies in hexagonal alloys
73	PO-ME-279	279	Park Yong-Wook	Latent diffusion on concentration fields for microstructure generation with sub-1% minority phases
74	PO-ME-281	281	Do-Hyun Kim	Phase-field-based electrochemical potential mapping for galvanic corrosion prediction in Mg–Ca–Zn alloys
75	PO-ME-285	285	Jinhyun Bang	Voxel-CNN Surrogate for Microstructure-Dependent P–E Hysteresis in HZO Ferroelectrics, Verified by Phase-Field Simulation
76	PO-ME-294	294	Changhyeon Han	Phase-field topology optimization of periodic cross-lattice cells incorporating crystallographic elastic anisotropy of the base alloy
77	PO-ME-381	381	Ken Tokunaga	4D microstructure reconstruction and material parameter estimation from thin-film X-ray in-situ observations through integration of Bayesian optimization and phase-field simulations
78	PO-ME-513	513	Xuezhou Wang	Modelling the role of impurity trapping in excess vacancy evolution and its influence on age hardening behaviors in multicomponent aluminium alloys
79	PO-ME-658	658	Hideto Nishikawa	Phase-field modeling of metal nanowire growth driven by stress-induced diffusion and grain boundary kinetics
80	PO-ME-721	721	Nan Wang	A general parameterization for one-component phase field crystal model

Poster Presentation 2: 13:00-15:00, Nov 11 (Wed), 2026

#	Presentation No.	Abstract ID	Presenter	Title
1	PO-AM-145	145	Heting Liao	Charge-Density-Guided Equivariant Graph Neural Networks for Small-Data and Out-of-Domain Energy Prediction
2	PO-AM-219	219	Kazuki Sasakawa	Machine learning model trained using phase-field simulation data for predicting 3D microstructures from 2D cross-sectional images
3	PO-AM-257	257	Hamidreza Razavi	Physics-Informed Graph Neural Networks for Long-Horizon Microstructure Evolution Forecasting
4	PO-AM-275	275	Seongu Han	AI-assisted composition design of Fe-based soft magnetic alloys via semi-supervised active learning
5	PO-AM-282	282	Kyungwhan Lee	Experimental-Based Construction of a Combinatorial Dataset for Machine Learning Alloy Design
6	PO-AM-289	289	Jihoo Kim	Chemically Intuitive Equivariant Graph Neural Networks for Directional Property Learning
7	PO-AM-327	327	Seo-Hui Park	Multi-Objective Active Learning for Accelerated Design of C14 Laves-Type TiMn ₂ -Based High-Entropy Alloys for Hydrogen Storage.
8	PO-AM-621	621	Young-Kwang Kim	An Ontology-Based Knowledge Graph Approach for Materials and Process Optimization under Data-Scarce Conditions.
9	PO-AM-718	718	Propad Y.V.	EnvXGen: the open-source framework for crystal structure prediction with fixed structural environment
10	PO-AM-736	736	Taegyun Lee	AI-Driven Inverse Design for New Superconductor Discovery
11	PO-MD-13	13	Alexandre Bergero	Machine-learning interatomic potential for deposition and sputtering of WB inside fusion reactors
12	PO-MD-132	132	Dianwei Hou	Machine-learning simulations predict graphene is hydrophobic and not wetting transparent
13	PO-MD-144	144	Yakov Mkrtchyan	On the possibility of phase transition in liquid selenium from molecular dynamics
14	PO-MD-192	192	Norikazu Miyagawa	Impact of polycrystalline model construction methods on molecular dynamics-based mechanical property evaluation
15	PO-MD-217	217	Matthew Harris	Bootstrapped MACE potential for nitrogen vacancy driven phase stability in high entropy nitrides
16	PO-MD-236	236	Durga Prasanth Dude	Atomistic Insights into the Kinetics of Copper Oxide Deoxidation via Hydrogen: A Reactive Molecular Dynamics Study
17	PO-MD-258	258	Shuto Araki	DeepMD Study of Exfoliability in Remote-Epitaxial SiC Films on Graphene
18	PO-MD-260	260	Arata Kuroishi	Coarse-Grained Molecular Dynamics Study of Nanoparticle-Shape Effects on Superlattice Formation and Mechanical Response in One-Component Polymer-Grafted Nanoparticle Assemblies
19	PO-MD-303	303	Jiei Taniguchi	Effect of Cooling Rate on STZ Core Formation in Cu–Zr Metallic Glasses
20	PO-MD-342	342	Rin Ohta	Unveiling Plastic Deformation Units in Glassy Silica
21	PO-MD-516	516	Shota Mori	Machine-Learning Potential-Based Large-scale Molecular Dynamics Analysis of the Local Structure around Dislocation Cores in Li6PS5Cl and Its influence on Ionic conductivity
22	PO-MD-523	523	Sakuto Taya	Analysis of the Microscopic Deformation Mechanisms of Antigorite by Molecular Dynamics Using a Machine-Learning Potential
23	PO-MD-527	527	Yifeng Xie	Dislocation-driven active learning interatomic potentials for Cantor's high-entropy alloys in spin-dynamics-coupled molecular dynamics
24	PO-MD-532	532	Dario Ferrando	A Martini 3 coarse-grained model of graphene oxide
25	PO-MD-725	725	Taisei Ueda	Self-Assembly and Shear Response of Confined Patchy Nanoplates: Hybrid MD–Mesoscale Hydrodynamic Simulations
26	PO-MD-738	738	Patrick Burr	Quantitative phase analysis using global structural signatures in molecular dynamics simulations
27	PO-MD-742	742	Qi Wang	From Hydration Structure to Catalytic Electrode: Molecular Dynamics Insights into Cr ³⁺ Dissociation for Enhanced Iron-Chromium Flow Battery Performance

28	PO-MD-747	747	Faith Kporha	Atomistic Modeling of Deuterium Sputtering from Deuterium-Decorated Tungsten Surfaces
29	PO-MD-748	748	Heidi Laitinen	Effects of Diffusion Processes on Atomic Ordering in Mo-Nb-Ta-V-W Thin Films
30	PO-FD-252	252	Sreya Viswanathan	Calculation of electronic stopping of self-ions in copper: from first principles to a dissipative molecular dynamics model
31	PO-FD-569	569	minyu kang jaebok Seol	Effect of Ni content on retained Austenite Characteristics and cryogenic Tensile Behavior of High-Ni Steels
32	PO-FD-579	579	WonChan Lee	Integrated Atomistic Modeling and Microstructural Characterization of Orientation-Dependent Corrosion in Pure Nickel Exposed to NaCl-MgCl ₂ Molten Salt
33	PO-FD-603	603	An JeongHo	Nanoscale Electric Double Layer Modeling at the Metal/Molten Chloride Interface Using MOOSE
34	PO-FD-664	664	Dohyeon Yun Dongwook Kim	Atomistic Modeling of Interfacial Damage and Failure in Cu-Cu Direct Bonding: A Comparative Molecular Dynamics Study of Single-Crystal, Nanotwinned, and CuAg Alloy Configurations
35	PO-FD-722	722	Thierry Auger	Solid-liquid interfaces and energetic criterium in Liquid Metal Embrittlement
36	PO-FD-730	730	Xiaolin Li	Synergistic enhancement of hydrogen embrittlement resistance from room to cryogenic temperatures in FeMnCoCrNbC High-Entropy Alloy via precipitation and heterogeneous microstructure
37	PO-FD-779	779	Varvara Panurchenko	Effect of TiB Whiskers on Dwell Fatigue Properties of TMC with Ti64 Matrix
38	PO-FD-780	780	Minsang Joh	Micromechanical Characterization of Duplex and Fully Lamellar 欸-TiAl Microstructures
39	PO-DD-55	55	Milind Singh	Optimizing the Microstructure and Texture for a Given 6xxx Series Al Alloy Under Tensile Loading Conditions Using Crystal Plasticity
40	PO-DD-191	191	Yangen Li	Origin of plastic anisotropy in BCC metals from dislocation energy landscape
41	PO-DD-363	363	Seungyun Kim	Development of a Machine Learning Interatomic Potential for Atomistic Simulations of Radiation Damage Processes in Nb3Sn
42	PO-DD-468	468	Ryo Kobayashi	Unified Modeling of Lattice Defects Based on Differential Geometry and Topology
43	PO-DD-511	511	Matthew Lloyd	Kinetic Monte Carlo Modelling of Solute and Vacancy Diffusion in Tungsten Alloys during Thermal Aging and Irradiation
44	PO-DD-548	548	Spencer Fajardo	Linking Shear Transformation Zones to Features of the Local Yield Surface in Simulated Metallic Glasses
45	PO-DD-557	557	Matthew Maron	Coupled Cluster and Dislocation Dynamics Modeling of Microstructure Evolution in Irradiated Materials
46	PO-DD-558	558	黄隆州	Comparison of topological defects in crystalline and amorphous solids
47	PO-DD-595	595	Kazuhiko EMA	First-Principles Analysis of Slip Deformation Behavior in ω-Ti
48	PO-DD-617	617	Ting Lei	Selection Rule for Stable Schwarz Nanocrystals from a Super-Bravais Lattice Framework
49	PO-DD-683	683	Nana WANG	Effect of Sc Element on the Microstructure and Mechanical Properties of Al-Zn-Mg Alloys
50	PO-DD-698	698	Seunggyu Hong	Creep Damage Evolution in Compositionally Modified Haynes 282-Based Ni Superalloys
51	PO-DD-699	699	Seong Hyeon Yang	Effect of Sn Addition on Precipitation Behavior and Mechanical Properties of Al-4Cu-1.5Mg Casting Alloys
52	PO-DD-754	754	Abinash Pradhan	Microstructural evolution and fracture characteristics during Creep deformation of 16Cr-ODS Steel
53	PO-MN-58	58	Jingya Zhang	Composition-dependent dislocation mobility in FeNiCrCoCu high-entropy alloys based on atomistic simulations and machine learning analysis
54	PO-MN-319	319	Won-Gyu Choi	DFT-Based Theoretical Modeling of Interfacial Adhesion Energy between Cu and (Mo,Nb) Alloys for Enhanced Mechanical Reliability
55	PO-MN-356	356	Ruben Escobar	VACANCY-DIFFUSION MOTIVATED CREEP IN BCCS AND RHEAS
56	PO-MN-418	418	Colin Gerlach	Constitutive Material Model Parameter Optimization for Structural Fusion Materials
57	PO-MN-731	731	Hun-Min Jo	Density functional theory study on the role of ternary alloying elements in Ti-Nb-based shape memory alloys
58	PO-MN-734	734	Muhannad AL-Sindhi	When segmented/fragmented structures become materials

59	PO-MH-200	200	Fengping Luo	Hydrogen regulated synergistic nanocavity evolution in metals: multiscale studies and physical mechanisms for material failure
60	PO-MH-209	209	Fan-Shun Meng	Effect of Carbon on Defect Generation and Accumulation in Polycrystalline α -Iron under Hydrogen Environments
61	PO-MH-305	305	Jeongeun Park	Magnetism-Driven Surface Energetics in TiFe: Implications for Hydrogen Storage
62	PO-MH-371	371	Seongbeen Lee	Machine-Learning-Assisted Modeling of Hydrogen Diffusivity in Zirconium under Temperature and Anisotropic Strain Conditions
63	PO-MH-693	693	Changhun Kim	Effective Carbide Interface Engineering to Mitigate Hydrogen Embrittlement: A First-Principles Study
64	PO-MH-696	696	Seungyoun Jo	Mitigating Hydrogen Embrittlement by Solute Segregation in Austenite/Ferrite Interfaces: Using First Principles Study
65	PO-MP-74	74	Ronan MADEC	Slip System Interaction Strengths in Beryllium: A Dislocation Dynamics Study
66	PO-MP-93	93	Gensei Kobayashi	Phase-field modeling and simulations of solid fragmentation during solidification coupled with crystal plasticity and grain boundary evolution
67	PO-MP-135	135	Akihiro Niwa	Molecular dynamics study of solid fragmentation in a semi-solid state near the melting temperature
68	PO-MP-138	138	Jiarui Zhang	Unified constitutive model of body-centered cubic metals informed by discrete dislocation dynamics
69	PO-MP-297	297	Shunsuke Kobayashi	A Material-Time Manifold Framework for Continuum Dislocation Dynamics: Theory and Finite Element Analysis
70	PO-MP-362	362	Amani Hendricks	A Unified Constitutive Framework for Vanadium Alloys Under Fusion-Relevant Conditions
71	PO-MP-498	498	Shuya Hasegawa	Quantitative evaluation of intra-granular heterogeneous deformation in magnesium alloys with basal texture using polycrystal analysis models
72	PO-MP-526	526	HUANG Yuntong	Phase-Field Modeling of Grain-Boundary Grooving with Tunable Misorientation-Dependent Energy
73	PO-MP-571	571	Won Hui Jo	Multiscale deformation behavior and defect evolution of heterogeneous martensitic constituents in ultra-low-carbon dual-phase steel
74	PO-MP-673	673	Geon-Woo Baek	Effect of Oxygen Content on Microstructure and Defect Characteristics of Directed Energy Deposited CoCrFeMnNi High-Entropy Alloy
75	PO-MP-737	737	Takayuki Shiraiwa	Experimental Benchmarks for Multiscale Modeling of Localized Plasticity: From Slip-Band Strain Fields to Ultrafast Twin Propagation
76	PO-DK-14	14	Mohammad Alabdullah	Multiscale Viscoplastic Assessment of Eurofer97 Blanket Modules under Cyclic Pulsed Loading and Irradiation
77	PO-DK-417	417	Taeyean Kang	Influence of Cu Concentration and Ultrasonic Processing on the Microstructural Evolution and Magnetic Performance of Fe-Based Soft Magnetic Alloy Ribbons
78	PO-DK-700	700	Taehyung Kim	Annealing-induced μ -phase precipitation and microstructural heterogeneity in a low-thermal-expansion Fe _{43.2} Co ₃₃ Ni _{10.3} Cr _{3.8} Mo _{9.7} complex concentrated alloy with high cryogenic strength
79	PO-DK-701	701	Jae Hyuk Lee	Thermodynamics-Informed Multimodal Analysis of Cryogenic Martensitic Transformation Kinetics in Laser-Shock-Peened Co-Cr-Fe-Ni-Mo Medium-Entropy Alloy Welds
80	PO-TM-273	273	Ryo Kobayashi	Molecular-simulation investigation on Li segregation at grain boundary in LLZO
81	PO-TM-726	726	Nuojin Wang	From Atomic-Scale Interfacial Anisotropy to Ordered Dendrite Splitting in Ni-Nb Alloys
82	PO-TM-727	727	Ziyi Xiong	Incoherent Interfacial Energy from first-principles
83	PO-DS-165	165	Yves Ferro	Multiscale Modeling of Hydrogen and Irradiation Effects in Transmuted W-Re Alloys
84	PO-DS-368	368	Harsh Dudhatra	A Probabilistic Discrete Dislocation Dynamics Framework for Modeling Large scale Obstacle-Induced Hardening in Irradiated Tungsten