Yongho Sohn

List of Publications by Citations

184 papers	4,326 citations	36 h-index	57 g-index
192 ext. papers	4,998 ext. citations	4 avg, IF	5.73 L-index

#	Paper	IF	Citations
184	Development and implementation of plasma sprayed nanostructured ceramic coatings. *Surface and Coatings Technology*, **2001**, 146-147, 48-54	4.4	242
183	Fabrication and evaluation of plasma sprayed nanostructured alumina□titania coatings with superior properties. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 301, 80-89	5.3	196
182	Microstructure development of Al2O3□13wt.%TiO2 plasma sprayed coatings derived from nanocrystalline powders. *Acta Materialia*, **2002**, 50, 1141-1152	8.4	193
181	Microstructure, precipitates and hardness of selectively laser melted AlSi10Mg alloy before and after heat treatment. *Materials Characterization*, **2018**, 143, 5-17	3.9	122
180	Thermal cycling of EB-PVD/MCrAlY thermal barrier coatings: I. Microstructural development and spallation mechanisms. *Surface and Coatings Technology*, **2001**, 146-147, 70-78	4.4	110
179	Microstructure and Residual Stress of Alumina Scale Formed on Ti2AlC at High Temperature in Air. *Oxidation of Metals*, **2007**, 68, 97-111	1.6	90
178	Microstructure and tensile property of a novel AlZnMgScZr alloy additively manufactured by gas atomization and laser powder bed fusion. *Scripta Materialia*, **2019**, 158, 24-28	5.6	88
177	Degradation of Yttria-Stabilized Zirconia Thermal Barrier Coatings by Vanadium Pentoxide, Phosphorous Pentoxide, and Sodium Sulfate. *Journal of the American Ceramic Society*, **2007**, 90, 3601-3607	3.8	81
176	Interdiffusion in the Mg-Al System and Intrinsic Diffusion in □Mg2Al3. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2012**, 43, 4043-4052	2.3	80
175	Application of Cr3+ photoluminescence piezo-spectroscopy to plasma-sprayed thermal barrier coatings for residual stress measurement. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2000**, 291, 68-77	5.3	80
174	Silicoaluminum Carbonitride with Anomalously High Resistance to Oxidation and Hot Corrosion. *Advanced Engineering Materials*, **2004**, 6, 337-340	3.5	74
173	NiS2/FeS Holey Film as Freestanding Electrode for High-Performance Lithium Battery. *Advanced Energy Materials*, **2017**, 7, 1701309	21.8	70
172	Support Dependence of MeOH Decomposition Over Size-Selected Pt Nanoparticles. *Catalysis Letters*, **2007**, 119, 209-216	2.8	70
171	Periodically Patterned Au-TiO Heterostructures for Photoelectrochemical Sensor. *ACS Sensors*, **2017**, 2, 621-625	9.2	66
170	Thermal cyclic lifetime and oxidation behavior of air plasma sprayed CoNiCrAlY bond coats for thermal barrier coatings. *Surface and Coatings Technology*, **2008**, 203, 437-441	4.4	57
169	Microstructural characterization of thermal barrier coatings on high pressure turbine blades. *Surface and Coatings Technology*, **2001**, 146-147, 132-139	4.4	57
168	Strained W(SexS1□)2 Nanoporous Films for Highly Efficient Hydrogen Evolution. *ACS Energy Letters*, **2017**, 2, 1315-1320	20.1	55

167	Constituent redistribution in U–Pu–Zr fuel during irradiation. *Journal of Nuclear Materials*, **2004**, 327, 27-36	3.3	55
166	Thermal cycling of EB-PVD/MCrAlY thermal barrier coatings: II. Evolution of photo-stimulated luminescence. *Surface and Coatings Technology*, **2001**, 146-147, 102-109	4.4	53
165	Microstructural analysis of as-processed U–10wt.%Mo monolithic fuel plate in AA6061 matrix with Zr diffusion barrier. *Journal of Nuclear Materials*, **2010**, 402, 8-14	3.3	51
164	Size Dependent Study of MeOH Decomposition Over Size-selected Pt Nanoparticles Synthesized via Micelle Encapsulation. *Catalysis Letters*, **2007**, 118, 1-7	2.8	51
163	Microstructural development in physical vapour-deposited partially stabilized zirconia thermal barrier coatings. *Thin Solid Films*, **1994**, 250, 1-7	2.2	51
162	Microstructure, precipitates and mechanical properties of powder bed fused inconel 718 before and after heat treatment. *Journal of Materials Science and Technology*, **2019**, 35, 1153-1164	9.1	50
161	Microstructural features influencing the strength of Trimodal Aluminum Metal-Matrix-Composites. *Composites Part A: Applied Science and Manufacturing*, **2010**, 41, 933-941	8.4	49
160	Electrophoretically deposited alumina as protective overlay for thermal barrier coatings against CMAS degradation. *Surface and Coatings Technology*, **2009**, 204, 797-801	4.4	48
159	Enhanced Photoelectrocatalytic Reduction of Oxygen Using Au@TiO Plasmonic Film. *ACS Applied Materials & Interfaces*, **2016**, 8, 34970-34977	9.5	47
158	Electrochemical impedance spectroscopy of porous ZrO2–8wt.% Y2O3 and thermally grown oxide on nickel aluminide. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 372, 278-286	5.3	46
157	Microstructure and mechanical properties of Zr-modified aluminum alloy 5083 manufactured by laser powder bed fusion. *Additive Manufacturing*, **2019**, 28, 485-496	6.1	45
156	Degradation of Thermal Barrier Coatings by Fuel Impurities and CMAS: Thermochemical Interactions and Mitigation Approaches. *Journal of Thermal Spray Technology*, **2010**, 19, 156-167	2.5	45
155	Al2(Mg,Ca) phases in Mg–Al–Ca ternary system: First-principles prediction and experimental identification. *Scripta Materialia*, **2006**, 55, 573-576	5.6	45
154	Analysis of constituent redistribution in the γ (bcc) U–Pu–Zr alloys under gradients of temperature and concentrations. *Journal of Nuclear Materials*, **2000**, 279, 317-329	3.3	44
153	Structure-property relationship in high strength and lightweight AlSi10Mg microlattices fabricated by selective laser melting. *Materials and Design*, **2019**, 182, 108062	8.1	42
152	The effect of bond coat grit blasting on the durability and thermally grown oxide stress in an electron beam physical vapor deposited thermal barrier coating. *Surface and Coatings Technology*, **2003**, 176, 57-66	4.4	39
151	Average effective interdiffusion coefficients and their applications for isothermal multicomponent diffusion couples. *Scripta Materialia*, **1996**, 35, 683-688	5.6	39
150	Electrochemical impedance spectroscopy of thermal barrier coatings as a function of isothermal and cyclic thermal exposure. *Surface and Coatings Technology*, **2004**, 177-178, 140-151	4.4	37

149	Aluminum Impurity Diffusion in Magnesium. *Journal of Phase Equilibria and Diffusion*, **2012**, 33, 121-125	1	36
148	Composition-dependent solidification cracking of aluminum-silicon alloys during laser powder bed fusion. *Acta Materialia*, **2021**, 208, 116698	8.4	36
147	Effect of Sc addition on the microstructure and mechanical properties of as-atomized and extruded Al□0Si alloys. *Materials Letters*, **2012**, 71, 164-167	3.3	35
146	Diffusion under temperature gradient: A phase-field model study. *Journal of Applied Physics*, **2009**, 106, 034912	2.5	34
145	Diffusion kinetics, mechanical properties, and crystallographic characterization of intermetallic compounds in the Mg□n binary system. *Intermetallics*, **2015**, 67, 145-155	3.5	33
144	Interdiffusion and impurity diffusion in polycrystalline Mg solid solution with Al or Zn. *Journal of Alloys and Compounds*, **2014**, 617, 968-974	5.7	32
143	A double-serpentine diffusion path for a ternary diffusion couple. *Acta Materialia*, **2000**, 48, 1427-1433	8.4	32
142	Interdiffusion, Intrinsic Diffusion, Atomic Mobility, and Vacancy Wind Effect in □bcc) Uranium-Molybdenum Alloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2013**, 44, 738-746	2.3	29
141	Effects of phase constituents/microstructure of thermally grown oxide on the failure of EB-PVD thermal barrier coating with NiCoCrAlY bond coat. *Surface and Coatings Technology*, **2006**, 200, 5869-5876	4.4	28
140	Phase Constituents and Microstructure of Interaction Layer Formed in U-Mo Alloys vs Al Diffusion Couples Annealed at 873 K (600 □C). *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2011**, 42, 3071-3083	2.3	27
139	Phase transformations of thermally grown oxide on (Ni,Pt)Al bondcoat during electron beam physical vapor deposition and subsequent oxidation. *Surface and Coatings Technology*, **2004**, 177-178, 121-130	4.4	27
138	Stabilization of Sn Anode through Structural Reconstruction of a Cu-Sn Intermetallic Coating Layer. *Advanced Materials*, **2020**, 32, e2003684	24	27
137	Microstructural and crystallographic characteristics of modulated martensite, non-modulated martensite, and pre-martensitic tweed austenite in Ni-Mn-Ga alloys. *Acta Materialia*, **2017**, 134, 93-103	8.4	26
136	Microstructural characterization of U□Mo/Al□i alloy matrix dispersion fuel plates fabricated at 500□C. *Journal of Nuclear Materials*, **2011**, 412, 90-99	3.3	26
135	Isothermal oxidation of physical vapor deposited partially stabilized zirconia thermal barrier coatings. *Journal of Materials Engineering and Performance*, **1994**, 3, 55-60	1.6	26
134	Interdiffusion Between Zr Diffusion Barrier and U-Mo Alloy. *Journal of Phase Equilibria and Diffusion* , **2012**, 33, 443-449	1	25
133	Understanding the Laser Powder Bed Fusion of AlSi10Mg Alloy. *Metallography, Microstructure, and Analysis*, **2020**, 9, 484-502	1.1	24
132	Interdiffusion and reaction between uranium and iron. *Journal of Nuclear Materials*, **2012**, 424, 82-88	3.3	24

131	Non-destructive evaluation of degradation in multi-layered thermal barrier coatings by electrochemical impedance spectroscopy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 407, 213-225	5.3	24
130	An integrated computational materials engineering-anchored closed-loop method for design of aluminum alloys for additive manufacturing. *Materialia*, **2020**, 9, 100574	3.2	24
129	Laser powder bed fusion of Al□10 wt% Ce alloys: microstructure and tensile property. *Journal of Materials Science*, **2020**, 55, 14611-14625	4.3	24
128	Process-Dependent Composition, Microstructure, and Printability of Al-Zn-Mg and Al-Zn-Mg-Sc-Zr Alloys Manufactured by Laser Powder Bed Fusion. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2020**, 51, 3215-3227	2.3	23
127	Growth kinetics and microstructural evolution during hot isostatic pressing of U-10wt.% Mo monolithic fuel plate in AA6061 cladding with Zr diffusion barrier. *Journal of Nuclear Materials*, **2014**, 447, 215-224	3.3	23
126	Simultaneous measurement of tracer and interdiffusion coefficients: an isotopic phenomenological diffusion formalism for the binary alloy. *Philosophical Magazine*, **2013**, 93, 3515-3526	1.6	23
125	Effects of Ir or Ta Alloying Addition on Interdiffusion of L12□Ni3Al. *Intermetallics*, **2008**, 16, 1095-1103	3.5	23
124	Microstructure of as-coated thermal barrier coatings with varying lifetimes. *Surface and Coatings Technology*, **2004**, 177-178, 89-96	4.4	23
123	Effect of direct aging on the microstructure and tensile properties of AlSi10Mg alloy manufactured by selective laser melting process. *Materials Characterization*, **2021**, 176, 111113	3.9	23
122	Microstructure characterization of as-fabricated and 475□C annealed U□7wt.% Mo dispersion fuel in Al□Si alloy matrix. *Journal of Alloys and Compounds*, **2011**, 509, 9487-9496	5.7	22
121	Life approximation of thermal barrier coatings via quantitative microstructural analysis. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 549, 76-81	5.3	21
120	Phase-field simulation of interdiffusion microstructure containing fcc-□and L12-□phases in Ni□Al diffusion couples. *Computational Materials Science*, **2008**, 43, 301-308	3.2	21
119	Oxygen diffusion through Al-doped amorphous SiO2. *Journal of Phase Equilibria and Diffusion*, **2006** , 27, 671-675	1	21
118	A microstructural observation of near-failure thermal barrier coating: a study by photostimulated luminescence spectroscopy and transmission electron microscopy. *Thin Solid Films*, **2004**, 466, 128-136	2.2	21
117	Continuous strip casting, microstructure and properties of Au-Sn soldering alloy. *Metals and Materials International*, **2011**, 17, 7-14	2.4	20
116	Microstructural Characterization of U-Nb-Zr, U-Mo-Nb, and U-Mo-Ti Alloys via Electron Microscopy. *Journal of Phase Equilibria and Diffusion*, **2010**, 31, 216-222	1	20
115	Monitoring damage evolution in thermal barrier coatings with thermal wave imaging. *Surface and Coatings Technology*, **2005**, 200, 1292-1297	4.4	19
114	Mechanical properties examined by nanoindentation for selected phases relevant to the development of monolithic uranium-molybdenum metallic fuels. *Journal of Nuclear Materials*, **2017**, 487, 443-452	3.3	18

113	MAGNETOCALORIC RESPONSE OF NON-STOICHIOMETRIC NiMnGa ALLOYS AND THE INFLUENCE OF CRYSTALLOGRAPHIC TEXTURE. *Acta Materialia*, **2015**, 97, 245-256	8.4	18
112	Transmission electron microscopy observations on the phase composition and microstructure of the oxidation scale grown on as-polished and yttrium-implanted NiAl. *Surface and Coatings Technology*, **2010**, 205, 1206-1210	4.4	18
111	Interdiffusion, intrinsic diffusion and vacancy wind effect in Fe-Al alloys at 1000°C. *Scripta Materialia*, **1998**, 40, 79-84	5.6	18
110	Measurement of tracer diffusion coefficients in an interdiffusion context for multicomponent alloys. *Philosophical Magazine Letters*, **2015**, 95, 416-424	1	17
109	Additive manufacturing of dense WE43 Mg alloy by laser powder bed fusion. *Additive Manufacturing*, **2020**, 33, 101123	6.1	17
108	Strengthening in hybrid alumina-titanium diboride aluminum matrix composites synthesized by ultrasonic assisted reactive mechanical mixing. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 702, 312-321	5.3	17
107	Microstructural anomalies in hot-isostatic pressed U10 wt.% Mo fuel plates with Zr diffusion barrier. *Materials Characterization*, **2015**, 103, 50-57	3.9	16
106	Interdiffusion and reaction between Zr and Al alloys from 425°to 625°C. *Intermetallics*, **2014**, 49, 154-162	3.5	16
105	Phase Transformations of Plasma-Sprayed ZirconiaCeria Thermal Barrier Coatings. *Journal of the American Ceramic Society*, **2002**, 85, 2065-2071	3.8	16
104	Composition-dependent interdiffusion coefficient, reduced elastic modulus and hardness in - 2- and -phases in the Ni-Al system. *Journal of Alloys and Compounds*, **2017**, 727, 153-162	5.7	15
103	Overview of SIMS-Based Experimental Studies of Tracer Diffusion in Solids and Application to Mg Self-Diffusion. *Journal of Phase Equilibria and Diffusion*, **2014**, 35, 762-778	1	15
102	Diffusion Barrier Selection from Refractory Metals (Zr, Mo and Nb) Via Interdiffusion Investigation for U-Mo RERTR Fuel Alloy. *Journal of Phase Equilibria and Diffusion*, **2014**, 35, 146-156	1	15
101	Mechanical anomaly observed in Ni-Mn-Ga alloys by nanoindentation. *Acta Materialia*, **2016**, 118, 54-63	8.4	15
100	Strain-induced grain growth of cryomilled nanocrystalline Al in trimodal composites during forging. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2012**, 536, 103-109	5.3	14
99	Interdiffusion in L12-Ni3Al Alloyed with Re. *Journal of Phase Equilibria and Diffusion*, **2009**, 30, 246-253	1	14
98	Composition and structure of nitrogen-containing dispersoids in trimodal aluminum metalmatrix composites. *Journal of Materials Science*, **2010**, 45, 4871-4876	4.3	14
97	Long-term oxidation and phase transformations in aluminized CMSX-4 superalloys. *Surface and Coatings Technology*, **2004**, 188-189, 27-34	4.4	14
96	Phase decomposition of U (bcc) in U-10wt% Mo fuel alloy during hot isostatic pressing of monolithic fuel plate. *Journal of Nuclear Materials*, **2016**, 480, 271-280	3.3	14

95	Investigation of sluggish diffusion in FCC Al0.25CoCrFeNi high-entropy alloy. *Materials Research Letters*, **2021**, 9, 239-246	7.4	14
94	Interdiffusion and reactions between U-Mo and Zr at 650 °C as a function of time. *Journal of Nuclear Materials*, **2015**, 456, 351-358	3.3	13
93	Enhanced thermoelectric cooling properties of $Bi_2Te_{3-x}Se_x$ alloys fabricated by combining casting, milling and spark plasma sintering. *Intermetallics*, **2016**, 78, 42-49	3.5	13
92	Numerical simulation of high-pressure gas atomization of two-phase flow: Effect of gas pressure on droplet size distribution. *Advanced Powder Technology*, **2019**, 30, 2726-2732	4.6	13
91	Simultaneous tracer diffusion and interdiffusion in a sandwich-type configuration to provide the composition dependence of the tracer diffusion coefficients. *Philosophical Magazine*, **2014**, 94, 3560-3573	1.6	13
90	Quantification of nitrogen impurity and estimated Orowan strengthening through secondary ion mass spectroscopy in aluminum cryomilled for extended durations. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 648, 412-417	5.3	13
89	Growth Kinetics of Intermetallic Phases in U-Mo vs. Al Alloy Diffusion Couples Annealed at 550°C. *Defect and Diffusion Forum*, **2007**, 266, 149-156	0.7	13
88	Chip Morphology and Chip Formation Mechanisms During Machining of ECAE-Processed Titanium. *Journal of Manufacturing Science and Engineering, Transactions of the ASME*, **2018**, 140,	3.3	12
87	Microstructural Characterization of AA6061 Versus AA6061 HIP Bonded Cladding–Cladding Interface. *Journal of Phase Equilibria and Diffusion*, **2018**, 39, 246-254	1	12
86	Role of Si on the Diffusional Interactions Between U-Mo and Al-Si Alloys at 823 K (550 °C). *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2013**, 44, 584-595	2.3	12
85	Microstructural Development in As Built and Heat Treated IN625 Component Additively Manufactured by Laser Powder Bed Fusion. *Journal of Phase Equilibria and Diffusion*, **2021**, 42, 14-27	1	12
84	Failure characteristics and mechanisms of EB-PVD TBCs with Pt-modified NiAl bond coats. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 637, 98-106	5.3	11
83	Martensitic transformation and mechanical properties of $Ni_{49+x}Mn_{36-x}In_{15}$ (x=0, 0.5, 1.0, 1.5 and 2.0) alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 646, 57-65	5.3	11
82	Diffusional Interaction Between U-10 wt pct Zr and Fe at 903 K, 923 K, and 953 K (630 °C, 650 °C, and 680 °C). *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 72-82	2.3	11
81	Improvement of aging kinetics and precipitate size refinement in Mg-Sn alloys by hafnium additions. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2016**, 651, 854-858	5.3	11
80	Strain Energy During Mechanical Milling: Part I. Mathematical Modeling. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2012**, 43, 4247-4257	2.3	11
79	Understanding the phase equilibrium and irradiation effects in Fe-Zr diffusion couples. *Journal of Nuclear Materials*, **2013**, 432, 205-211	3.3	11
78	Phase constituents of Al-rich U-Mo-Al alloys examined by transmission electron microscopy. *Journal of Nuclear Materials*, **2009**, 394, 160-165	3.3	11

77	High Entropy and Sluggish Diffusion "Core" Effects in Senary FCC Al-Co-Cr-Fe-Ni-Mn Alloys. *ACS Combinatorial Science*, **2020**, 22, 757-767	3.9	11
76	Additive manufacturing and mechanical properties of the dense and crack free Zr-modified aluminum alloy 6061 fabricated by the laser-powder bed fusion. *Additive Manufacturing*, **2021**, 41, 101966	6.1	11
75	Microstructure, mechanical performance, and corrosion behavior of additively manufactured aluminum alloy 5083 with 0.7 and 1.0 wt% Zr addition. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 823, 141679	5.3	11
74	Molecular dynamics study of phonon-mediated thermal transport in a Ni50Al50 melt: case analysis of the influence of the process on the kinetics of solidification. *Philosophical Magazine*, **2015**, 95, 90-111	1.6	10
73	Anode Materials: Stabilization of Sn Anode through Structural Reconstruction of a Cu□Sn Intermetallic Coating Layer (Adv. Mater. 42/2020). *Advanced Materials*, **2020**, 32, 2070319	24	10
72	Interdiffusion and Reaction Between Al and Zr in the Temperature Range of 425 to 475 °C. *Journal of Phase Equilibria and Diffusion*, **2019**, 40, 482-494	1	9
71	Interdiffusion, Solubility Limit, and Role of Entropy in FCC Al-Co-Cr-Fe-Ni Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2020**, 51, 3142-3153	2.3	9
70	Interdiffusion and reaction between U and Zr. *Journal of Nuclear Materials*, **2018**, 502, 42-50	3.3	9
69	Investigation of interdiffusion behavior in the Mo□Zr binary system via diffusion couple studies. *International Journal of Refractory Metals and Hard Materials*, **2014**, 43, 317-321	4.1	9
68	Effects of Cr and Ni on interdiffusion and reaction between U and Fe□Cr□Ni alloys. *Journal of Nuclear Materials*, **2014**, 451, 372-378	3.3	9
67	Al□O□ based duplex coating system for improved oxidation resistance of superalloys and NiCrAlY coatings. *Surface and Coatings Technology*, **2004**, 183, 224-232	4.4	9
66	Effects of Alloy Composition and Solid-State Diffusion Kinetics on Powder Bed Fusion Cracking Susceptibility. *Journal of Phase Equilibria and Diffusion*, **2021**, 42, 5-13	1	9
65	Interdiffusion in Ternary Magnesium Solid Solutions of Aluminum and Zinc. *Journal of Phase Equilibria and Diffusion*, **2016**, 37, 65-74	1	8
64	Tailoring Microstructure and Properties of Hierarchical Aluminum Metal Matrix Composites Through Friction Stir Processing. *Jom*, **2012**, 64, 234-238	2.1	8
63	Interdiffusion Between Potential Diffusion Barrier Mo and U-Mo Metallic Fuel Alloy for RERTR Applications. *Journal of Phase Equilibria and Diffusion*, **2013**, 34, 307-312	1	8
62	Hollow-cone dark-field transmission electron microscopy for dislocation density characterization of trimodal Al composites. *Micron*, **2011**, 42, 29-35	2.3	8
61	Synthesis of Stable Hybrid Silica□Lipid Cylinders with Nanoscale Helical Ripples. *Journal of Physical Chemistry C*, **2007**, 111, 6418-6421	3.8	8
60	Degradation of free-standing air plasma sprayed CoNiCrAlY coatings by vanadium and phosphorus pentoxides. *Surface and Coatings Technology*, **2008**, 203, 427-431	4.4	8

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58	The development of a quality prediction system for aluminum laser welding to measure plasma intensity using photodiodes. *Journal of Mechanical Science and Technology*, **2016**, 30, 4697-4704	1.6	7
57	Atomistic study on the interaction of nitrogen and Mg lattice and the nitride formation in nanocrystalline Mg alloys synthesized using cryomilling process. *Acta Materialia*, **2016**, 115, 295-307	8.4	7
56	Microstructural Development and Ternary Interdiffusion in Ni-Mn-Ga Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 5572-5587	2.3	7
55	Influence of heat treatment on the high-cycle fatigue properties and fatigue damage mechanism of selective laser melted AlSi10Mg alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 819, 141486	5.3	7
54	Effects of Marker Size and Distribution on the Development of Kirkendall Voids, and Coefficients of Interdiffusion and Intrinsic Diffusion. *Journal of Phase Equilibria and Diffusion*, **2019**, 40, 156-169	1	6
53	Spark Plasma Sintered BC-Structural, Thermal, Electrical and Mechanical Properties. *Materials*, **2020** , 13,	3.5	6
52	High strength WE43 microlattice structures additively manufactured by laser powder bed fusion. *Materialia*, **2021**, 16, 101067	3.2	6
51	Process Optimization and Microstructure Analysis to Understand Laser Powder Bed Fusion of 316L Stainless Steel. *Metals*, **2021**, 11, 832	2.3	6
50	Design of heterogeneous structured Al alloys with wide processing window for laser-powder bed fusion additive manufacturing. *Additive Manufacturing*, **2021**, 42, 102002	6.1	6
49	Elimination of extraordinarily high cracking susceptibility of aluminum alloy fabricated by laser powder bed fusion. *Journal of Materials Science and Technology*, **2022**, 103, 50-58	9.1	6
48	Thermotransport in (bcc) U□Zr alloys: A phase-field model study. *Journal of Nuclear Materials*, **2011** , 414, 211-216	3.3	5
47	Microstructural stability of fcc-□B2-□coatings on □substrate in Ni□Cr□Al system □A phase field model study. *Surface and Coatings Technology*, **2008**, 203, 407-412	4.4	5
46	Phase Transformations and Microstructural Development in the U-10 Wt Pct Mo Alloy with Varying Zr Contents After Heat Treatments Relevant to the Monolithic Fuel Plate Fabrication Process. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2019**, 50, 72-96	2.3	5
45	18-4: Converting Light Diffusing Polymer Powders into Stable Perovskite-Based Tunable Downconverters. *Digest of Technical Papers SID International Symposium*, **2018**, 49, 222-224	0.5	5
44	Microstructural characteristics of plasma sprayed, electroplated, and co-rolled Zr diffusion barriers in hot isostatic pressed low enriched U-10 wt% Mo monolithic fuel plates. *Journal of Nuclear Materials*, **2019**, 523, 91-100	3.3	4
43	Corrosion Behaviour of AISI 304 Stainless Steel with Solar Salt Heat Transfer Fluid. *Advanced Materials Research*, **2014**, 922, 13-17	0.5	4
42	Effect of hydrogen on the physical and mechanical properties of silicon carbide-derived carbon films. *Surface and Coatings Technology*, **2009**, 204, 1018-1021	4.4	4

41	Correlation of Magnetic Barkhausen Emission Profile with Strength of Thermally Degraded 2.25Chromium–1Molybdenum Steel. *Materials Transactions*, **2005**, 46, 3089-3091	1.3	4
40	Mechanical Behavior Assessment of Ti-6Al-4V ELI Alloy Produced by Laser Powder Bed Fusion. *Metals*, **2021**, 11, 1671	2.3	4
39	Anomalous growth of Al8Mo3 phase during interdiffusion and reaction between Al and Mo. *Journal of Nuclear Materials*, **2020**, 539, 152337	3.3	4
38	Direct-Contact Cytotoxicity Evaluation of CoCrFeNi-Based Multi-Principal Element Alloys. *Journal of Functional Biomaterials*, **2018**, 9,	4.8	4
37	Strain Energy During Mechanical Milling: Part II. Experimental. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2012**, 43, 4258-4265	2.3	3
36	Interdiffusion in (face-centered cubic) Ni-Cr-X (X=Al, Si, Ge, or Pd) alloys at 900 °C. *Journal of Phase Equilibria and Diffusion*, **2006**, 27, 665-670	1	3
35	Microstructural characteristics and mechanical properties of additively manufactured Cu10Sn alloys by laser powder bed fusion. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2022**, 838, 142775	5.3	3
34	Phase reversion kinetics of thermally decomposed (+ 2) phases to phase in U 10 wt% Mo alloy. *Journal of Nuclear Materials*, **2020**, 530, 151983	3.3	3
33	Microstructural development from interdiffusion and reaction between UMo and AA6061 alloys annealed at 600 and 550 °C. *Journal of Nuclear Materials*, **2016**, 477, 178-192	3.3	3
32	Al and Zn Impurity Diffusion in Binary and Ternary Magnesium Solid-Solutions407-411		3
31	Radiation effects on interface reactions of U/Fe, U/(Fe + Cr), and U/(Fe + Cr + Ni). *Journal of Nuclear Materials*, **2015**, 456, 302-310	3.3	2
30	Diffusion in Multicomponent Alloys **2017**, 203-237		2
29	Microstructural and Crystallographic Characterization of Ni2+x Mn1 Ga Alloys (x = 0.14, 0.16, 0.19, 0.22, and 0.24) by Transmission Electron Microscopy. *Metallurgical and Materials Transactions E*, **2014**, 1, 239-246		2
28	High-temperature mechanical response of A359 iCp 0%: tensile loading (I). *Materials at High Temperatures*, **2013**, 30, 212-223	1.1	2
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