

# John H Perepezko

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3743250/publications.pdf>

Version: 2024-02-01

201  
papers

6,138  
citations

76196

40  
h-index

82410

72  
g-index

204  
all docs

204  
docs citations

204  
times ranked

3984  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Hotter the Engine, the Better. <i>Science</i> , 2009, 326, 1068-1069.	6.0	752
2	Mo-Si-B Alloys: Developing a Revolutionary Turbine-Engine Material. <i>MRS Bulletin</i> , 2003, 28, 639-645.	1.7	341
3	Nucleation in undercooled liquids. <i>Materials Science and Engineering</i> , 1984, 65, 125-135.	0.1	266
4	Rapid Degradation of Azo Dye by Fe-Based Metallic Glass Powder. <i>Advanced Functional Materials</i> , 2012, 22, 2567-2570.	7.8	259
5	The ag-cu (silver-copper) system. <i>Journal of Phase Equilibria and Diffusion</i> , 1993, 14, 62-75.	0.3	195
6	Application of ternary phase diagrams to the development of MoSi <sub>2</sub> -based materials. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1992, 155, 33-44.	2.6	170
7	Intermetallic phase formation during annealing of Al/Ni multilayers. <i>Journal of Applied Physics</i> , 1994, 76, 7850-7859.	1.1	137
8	Iron-Based Amorphous Metals: High-Performance Corrosion-Resistant Material Development. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2009, 40, 1289-1305.	1.1	129
9	Structural evolution and phase formation in cold-rolled aluminum-nickel multilayers. <i>Acta Materialia</i> , 2001, 49, 1139-1151.	3.8	97
10	The ultrastable kinetic behavior of an Au-based nanoglass. <i>Acta Materialia</i> , 2014, 79, 30-36.	3.8	97
11	Nucleation-controlled reactions and metastable structures. <i>Progress in Materials Science</i> , 2004, 49, 263-284.	16.0	96
12	Aluminum nanoscale order in amorphous Al <sub>92</sub> Sm <sub>8</sub> measured by fluctuation electron microscopy. <i>Applied Physics Letters</i> , 2005, 86, 141910.	1.5	96
13	Strong, Ductile Magnesium-Zinc Nanocomposites. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2009, 40, 3038-3045.	1.1	93
14	Nucleation of shear bands in amorphous alloys. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 3938-3942.	3.3	93
15	Increasing the kinetic stability of bulk metallic glasses. <i>Acta Materialia</i> , 2016, 104, 25-32.	3.8	86
16	Oxidation of ZrB <sub>2</sub> -SiC ultra-high temperature composites over a wide range of SiC content. <i>Journal of the European Ceramic Society</i> , 2012, 32, 3875-3883.	2.8	85
17	An ultra-high temperature Mo-Si-B based coating for oxidation protection of Nb <sub>5</sub> Si <sub>3</sub> composites. <i>Applied Surface Science</i> , 2015, 337, 38-44.	3.1	83
18	Oxidation-resistant coatings for ultra-high-temperature refractory Mo-based alloys. <i>Jom</i> , 2010, 62, 13-19.	0.9	73

#	ARTICLE	IF	CITATIONS
19	Enhance the thermal stability and glass forming ability of Al-based metallic glass by Ca minor-alloying. <i>Intermetallics</i> , 2012, 29, 35-40.	1.8	71
20	Glass formation and primary nanocrystallization in Al-base metallic glasses. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 301, 12-17.	2.6	70
21	Amorphous aluminum alloys—synthesis and stability. <i>Jom</i> , 2002, 54, 34-39.	0.9	70
22	CuInSe <sub>2</sub> phase formation during Cu <sub>2</sub> Se/In <sub>2</sub> Se <sub>3</sub> interdiffusion reaction. <i>Journal of Applied Physics</i> , 2000, 87, 3683-3690.	1.1	69
23	Primary crystallization in amorphous Al-based alloys. <i>Journal of Non-Crystalline Solids</i> , 2003, 317, 52-61.	1.5	69
24	Nonequilibrium Solute Capture in Passivating Oxide Films. <i>Physical Review Letters</i> , 2018, 121, 145701.	2.9	67
25	Use of Metastable Phase Diagrams in Rapid Solidification. <i>Materials Research Society Symposia Proceedings</i> , 1982, 19, 223.	0.1	64
26	Amorphous Metallizations for High-Temperature Semiconductor Device Applications. <i>IEEE Transactions on Industrial Electronics</i> , 1982, IE-29, 154-157.	5.2	58
27	Thermodynamic properties and crystallization kinetics of glass-forming undercooled liquid Au-Pb-Sb alloys. <i>Journal of Applied Physics</i> , 1990, 68, 4494-4502.	1.1	58
28	Perspectives on point defect thermodynamics. <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 97-129.	0.7	58
29	Nucleation Catalysis in Aluminum Alloy A356 Using Nanoscale Inoculants. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 2323-2330.	1.1	56
30	Amorphization and nanostructure synthesis in Al alloys. <i>Intermetallics</i> , 2002, 10, 1079-1088.	1.8	53
31	Oxidation behavior of pack-cemented Si-B oxidation protection coatings for Mo-Si-B alloys at 1300°C. <i>Surface and Coatings Technology</i> , 2015, 266, 57-63.	2.2	52
32	Possible existence of two amorphous phases of $\langle \text{scp} \rangle$ -mannitol related by a first-order transition. <i>Journal of Chemical Physics</i> , 2015, 142, 244504.	1.2	51
33	The effect of pressure on phase selection during nucleation in undercooled bismuth. <i>Journal of Applied Physics</i> , 1986, 60, 3489-3494.	1.1	50
34	Dependence of crystal nucleation on prior liquid overheating by differential fast scanning calorimeter. <i>Journal of Chemical Physics</i> , 2014, 140, 104513.	1.2	50
35	Structural investigation and mechanical properties of a representative of a new class of materials: nanograined metallic glasses. <i>Nanotechnology</i> , 2013, 24, 045610.	1.3	48
36	Mo-Si-B based coating for oxidation protection of SiC-C composites. <i>Surface and Coatings Technology</i> , 2012, 206, 4166-4172.	2.2	47

#	ARTICLE	IF	CITATIONS
37	Nucleation-Controlled Solidification Kinetics. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1996, 27, 533-547.	1.1	45
38	Oxidation Resistant Coatings for Ultrahigh Temperature Refractory Mo-Based Alloys. Advanced Engineering Materials, 2009, 11, 892-897.	1.6	45
39	Phase stability and alloying behavior in the Mo-Si-B system. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 507-514.	1.1	42
40	Interdiffusion kinetics in the Mo <sub>5</sub> SiB <sub>2</sub> (T <sub>2</sub> ) phase. Journal of Phase Equilibria and Diffusion, 2006, 27, 605-613.	0.5	42
41	Liquidus temperature determination in multicomponent alloys by thermal analysis. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2000, 31, 497-501.	1.1	41
42	Glass formation in a multicomponent Zr-based alloy by mechanical attrition and liquid undercooling. Applied Physics Letters, 1997, 70, 580-582.	1.5	40
43	In Situ Observations of Early Stage Oxidation of Ni-Cr and Ni-Cr-Mo Alloys. Corrosion, 2018, 74, 939-946.	0.5	39
44	High temperature environmental resistant Mo-Si-B based coatings. International Journal of Refractory Metals and Hard Materials, 2018, 71, 246-254.	1.7	36
45	Formation of a metastable ferromagnetic $\beta_2$ phase during containerless melt processing and rapid quenching in Mn-Al alloys. Journal of Applied Physics, 1992, 71, 676-680.	1.1	35
46	Competition between thermodynamics, kinetics and growth mode in the early-stage oxidation of an equimolar CoCrFeNi alloy. Acta Materialia, 2020, 196, 651-659.	3.8	35
47	A high-resolution transmission electron microscopy study of interfaces between the $\beta_3$ , B <sub>2</sub> , and $\beta_2$ phases in a Ti-Al-Mo alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1996, 27, 1623-1634.	1.1	34
48	Solidification of undercooled Sn-Sb peritectic alloys: Part I. Microstructural evolution. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1991, 22, 753-764.	1.4	32
49	Monte Carlo simulation of Nb K $\alpha$ secondary fluorescence in EPMA: comparison of PENELOPE simulations with experimental results. Surface and Interface Analysis, 2005, 37, 1012-1016.	0.8	32
50	Environmentally Resistant Mo-Si-B-Based Coatings. Journal of Thermal Spray Technology, 2017, 26, 929-940.	1.6	31
51	Repassivation Behavior of Individual Grain Facets on Dilute Ni-Cr and Ni-Cr-Mo Alloys in Acidified Chloride Solution. Journal of Physical Chemistry C, 2018, 122, 19499-19513.	1.5	31
52	Analysis of solidification microstructures during wedge-casting. Philosophical Magazine, 2006, 86, 3681-3701.	0.7	29
53	Ductile Biodegradable Mg-Based Metallic Glasses with Excellent Biocompatibility. Advanced Functional Materials, 2013, 23, 4793-4800.	7.8	29
54	Mapping the Viscoelastic Heterogeneity at the Nanoscale in Metallic Glasses by Static Force Spectroscopy. Nano Letters, 2020, 20, 7558-7565.	4.5	29

#	ARTICLE	IF	CITATIONS
55	Flux-induced structural modification and phase transformations in a Pd <sub>40</sub> Ni <sub>40</sub> Si <sub>4</sub> P <sub>16</sub> bulk-glassy alloy. <i>Acta Materialia</i> , 2010, 58, 5886-5897.	3.8	28
56	Thermodynamic modelling of liquids: CALPHAD approaches and contributions from statistical physics. <i>Physica Status Solidi (B): Basic Research</i> , 2014, 251, 33-52.	0.7	28
57	Nanocalorimetry measurements of metastable states. <i>Thermochimica Acta</i> , 2015, 603, 24-28.	1.2	28
58	Au diffusion in amorphous and polycrystalline Ni <sub>0.55</sub> Nb <sub>0.45</sub> . <i>Journal of Applied Physics</i> , 1982, 53, 6186-6190.	1.1	27
59	Undercooling and Nucleation during Solidification.. <i>ISIJ International</i> , 1995, 35, 580-588.	0.6	25
60	Oxidation resistance of a Mo-W-Si-B alloy at 1000-1300°C: The effect of a multicomponent Mo-Si-B coating. <i>Applied Surface Science</i> , 2019, 470, 289-295.	3.1	24
61	Temperature Dependence of the Dynamic Structure Factor for Supercooled Sn <sub>1-x</sub> Pb <sub>x</sub> Alloys: A Test of Instability Theories for the Liquid-Solid Phase Transition. <i>Physical Review Letters</i> , 1981, 47, 424-427.	2.9	23
62	Annealing response of point defects in off-stoichiometric Mo <sub>5</sub> SiB <sub>2</sub> phase. <i>Intermetallics</i> , 2007, 15, 1268-1276.	1.8	23
63	In situ phase separation and flow behavior in the glass transition region. <i>Intermetallics</i> , 2010, 18, 1235-1239.	1.8	23
64	Synthesis, Thermodynamic Stability and Diffusion Mechanism of Al <sub>5</sub> Fe <sub>2</sub> -Based Coatings. <i>Oxidation of Metals</i> , 2014, 81, 167-177.	1.0	23
65	Enhanced Oxidation Resistance of Mo-Si-B-Ti Alloys by Pack Cementation. <i>Oxidation of Metals</i> , 2017, 88, 267-277.	1.0	23
66	Nickel-Titanium Memory Metal: A "Smart" Material Exhibiting a Solid-State Phase Change and Superelasticity. <i>Journal of Chemical Education</i> , 1994, 71, 334.	1.1	22
67	Nanocrystallization Reactions in Amorphous Aluminum Alloys. <i>Materials Transactions</i> , 2003, 44, 1982-1992.	0.4	22
68	Oxidation Resistance Coatings of Mo-Si-B Alloys via a Pack Cementation Process. <i>Metals and Materials International</i> , 2008, 14, 1-7.	1.8	22
69	Extended Functionality of Environmentally-Resistant Mo-Si-B-Based Coatings. <i>Jom</i> , 2013, 65, 307-317.	0.9	22
70	Separating $\lambda^2$ relaxation from $\lambda_{\pm}$ relaxation in fragile metallic glasses based on ultrafast flash differential scanning calorimetry. <i>Physical Review Materials</i> , 2020, 4, .	0.9	22
71	Aluminum Pack Cementation on Mo-Si-B Alloys. <i>Journal of the Electrochemical Society</i> , 2007, 154, C692.	1.3	21
72	Amorphization of Zr-Al-Ni-Cu during cold rolling of elemental foils at ambient temperatures. <i>Philosophical Magazine Letters</i> , 1998, 77, 109-115.	0.5	20

#	ARTICLE	IF	CITATIONS
73	Suppressing CMAS attack with a MoSiB-based coating. <i>Surface and Coatings Technology</i> , 2014, 239, 138-146.	2.2	20
74	Mechanisms of bulk and surface diffusion in metallic glasses determined from molecular dynamics simulations. <i>Acta Materialia</i> , 2021, 209, 116794.	3.8	20
75	The solidification of aluminum-manganese powders. <i>Journal of Materials Research</i> , 1987, 2, 809-817.	1.2	19
76	Kinetics of heterogeneous nucleation on intrinsic nucleants in pure fcc transition metals. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 464113.	0.7	19
77	Phase Reactions and Processing in the Ti-Al based Intermetallics.. <i>ISIJ International</i> , 1991, 31, 1080-1087.	0.6	19
78	Microstructure, microhardness and oxidation behavior of Mo-Si-B alloys in the Moss+Mo2B+Mo5SiB2 three phase region. <i>Intermetallics</i> , 2020, 116, 106618.	1.8	18
79	Reactions at amorphous SiC/Ni interfaces. <i>Journal of Applied Physics</i> , 1999, 85, 2636-2641.	1.1	17
80	Solidification of Bcc/T1/T2 three-phase microstructure in Mo-Nb-Si-B alloys. <i>Intermetallics</i> , 2016, 72, 1-8.	1.8	17
81	Undercooling Behavior of Liquid Metals. <i>Materials Research Society Symposia Proceedings</i> , 1981, 8, 49.	0.1	15
82	Solidification of undercooled Sn-Sb peritectic alloys: Part II. Heterogeneous nucleation. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1991, 22, 765-773.	1.4	15
83	The kinetics of indium/amorphous-selenium multilayer thin film reactions. <i>Journal of Materials Research</i> , 1999, 14, 771-779.	1.2	15
84	Mo-Si-B Coating for Improved Oxidation Resistance of Niobium. <i>Advanced Engineering Materials</i> , 2015, 17, 1068-1075.	1.6	14
85	Hot Corrosion of Mo-Si-B Coatings. <i>Oxidation of Metals</i> , 2017, 87, 705-715.	1.0	14
86	Polyamorphism and liquid-liquid transformations in D-mannitol. <i>Journal of Chemical Physics</i> , 2018, 149, 074505.	1.2	14
87	Enhanced oxidation resistance of (Mo <sub>95</sub> W <sub>5</sub> ) <sub>85</sub> Ta <sub>10</sub> (TiZr) <sub>5</sub> refractory multi-principal element alloy up to 1300°C. <i>Acta Materialia</i> , 2021, 215, 117114.	3.8	14
88	Evolution of NiO Island Size Distributions during the Oxidation of a Ni-5Cr Alloy: Experiment and Modeling. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 9136-9146.	4.0	13
89	Vitrification, crystallization, and atomic structure of deformed and quenched Ni <sub>60</sub> Nb <sub>40</sub> metallic glass. <i>Journal of Non-Crystalline Solids</i> , 2018, 491, 133-140.	1.5	13
90	Surface Diffusion Is Controlled by Bulk Fragility across All Glass Types. <i>Physical Review Letters</i> , 2022, 128, 075501.	2.9	13

#	ARTICLE	IF	CITATIONS
91	Uniformity and interfaces in ion-beam deposited Al/Ni multilayers. <i>Journal of Materials Research</i> , 1997, 12, 385-391.	1.2	12
92	Nucleationâ€“catalysisâ€“kinetics analysis under dynamic conditions. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2003, 361, 447-461.	1.6	12
93	Interface reaction between Ni and amorphous SiC. <i>Journal of Electronic Materials</i> , 2004, 33, 1064-1070.	1.0	12
94	Primary crystallization reactions in Al-based metallic glass alloys. <i>Journal of Alloys and Compounds</i> , 2010, 504, S222-S225.	2.8	12
95	Kinetic transition in the growth of Al nanocrystals in Al-Sm alloys. <i>Journal of Applied Physics</i> , 2012, 111, 063525.	1.1	12
96	Flash DSC determination of the delay time for primary crystallization and minor alloying effect in marginal Al-based metallic glasses. <i>Thermochimica Acta</i> , 2019, 677, 91-98.	1.2	12
97	Examination of B in the Mo solid solution (Moss) in Mossâ€“+â€“Mo <sub>5</sub> SiB <sub>2</sub> â€“+â€“Mo <sub>2</sub> B alloys. <i>Scripta Materialia</i> , 2019, 163, 62-65.	2.6	12
98	Trimodal shear band nucleation distribution in a Gd-based metallic glass via nanoindentation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 801, 140402.	2.6	12
99	Long-term climate changes from crystal growth. <i>Nature</i> , 1988, 332, 592-593.	13.7	11
100	Titanium-Aluminide Alloys Between the Compositions Ti <sub>3</sub> Al and TiAl. <i>Materials Research Society Symposia Proceedings</i> , 1988, 133, 57.	0.1	11
101	Internal Nucleation of Highly Undercooled Magnesium Metasilicate Melts. <i>Journal of the American Ceramic Society</i> , 1991, 74, 1312-1319.	1.9	11
102	Deformation alloying and transformation reactions. <i>Journal of Alloys and Compounds</i> , 2009, 483, 14-19.	2.8	11
103	Nanostructure development during devitrification and deformation. <i>Journal of Alloys and Compounds</i> , 2010, 495, 360-364.	2.8	11
104	Superheating of Metallic Crystals. <i>Materials Research Society Symposia Proceedings</i> , 1985, 57, 67.	0.1	10
105	Phase selection during pulsed laser annealing of manganese. <i>Applied Physics Letters</i> , 1986, 48, 338-340.	1.5	10
106	Significance of the Heat of Mixing for the Amorphization of Multilayers by Deformation Processing. <i>Materials Science Forum</i> , 2002, 386-388, 21-26.	0.3	10
107	Approaches to quantification of microstructure for model lipid systems. <i>JAOCS, Journal of the American Oil Chemists' Society</i> , 2006, 83, 389-399.	0.8	10
108	Practical application of diffusion pathway analysis for SiC-metal reactions. <i>Metals and Materials International</i> , 2006, 12, 231-238.	1.8	10

#	ARTICLE	IF	CITATIONS
109	Oxidation Performance of High Temperature Mo-Si-B Alloys and Coatings. Materials Science Forum, 0, 595-598, 1065-1074.	0.3	10
110	Environmental Resistance of Mo-Si-B Alloys and Coatings. Oxidation of Metals, 2013, 80, 207-218.	1.0	10
111	Focus: Nucleation kinetics of shear bands in metallic glass. Journal of Chemical Physics, 2016, 145, 211803.	1.2	10
112	Interdiffusion in the Ni-Re System: Evaluation of Uncertainties. Journal of Phase Equilibria and Diffusion, 2017, 38, 750-763.	0.5	10
113	Al-Based Amorphous Metallic Plastics. Advanced Engineering Materials, 2019, 21, 1800930.	1.6	10
114	Defect recovery processes in Cr-B binary and Cr-Al-B MAB phases: structure-dependent radiation tolerance. Acta Materialia, 2022, 235, 118099.	3.8	10
115	Nanometer-scale solute clustering in aluminum-nickel-ytterbium metallic glasses. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 353, 99-104.	2.6	9
116	WO <sub>2</sub> triggered nucleation and growth of ultra-long W <sub>18</sub> O <sub>49</sub> structures, from nanobundles to single-crystalline microrod. Acta Materialia, 2018, 148, 55-62.	3.8	9
117	Surface dynamics measurement on a gold based metallic glass. Applied Physics Letters, 2020, 116, .	1.5	9
118	Electromigration studies in amorphous and polycrystalline alloys. Applied Physics Letters, 1988, 53, 102-103.	1.5	8
119	Phase Stability of MoSi <sub>2</sub> with Cr Additions. Materials Research Society Symposia Proceedings, 1992, 288, 159.	0.1	8
120	Elastic and inelastic mean free paths of 200 keV electrons in metallic glasses. Ultramicroscopy, 2016, 171, 89-95.	0.8	8
121	Mechanical properties and dislocation character of YB <sub>4</sub> and YB <sub>6</sub> . Intermetallics, 2017, 89, 86-91.	1.8	8
122	Crystallographic anisotropy of nonequilibrium solute capture. Acta Materialia, 2020, 198, 223-229.	3.8	8
123	Chapter 1 Principles underlying coatings and surface modification science. Materials Science and Engineering, 1985, 70, 9-22.	0.1	7
124	Containerless Processing of Undercooled Melts. Materials Research Society Symposia Proceedings, 1986, 87, 17.	0.1	7
125	Medium-Range Order in High Al-content Amorphous Alloys Measured by Fluctuation Electron Microscopy. Microscopy and Microanalysis, 2004, 10, 788-789.	0.2	7
126	Application of Plasma Spraying as a Precursor in the Synthesis of Oxidation-Resistant Coatings. Journal of Thermal Spray Technology, 2013, 22, 992-1001.	1.6	7



#	ARTICLE	IF	CITATIONS
127	Investigation of the nucleation delay time in Al-based metallic glasses by high rate calorimetry. Journal of Non-Crystalline Solids, 2018, 502, 9-14.	1.5	7
128	Microstructural Evaluation and Highly Efficient Photocatalytic Degradation Characteristic of Nanostructured Mg <sub>65</sub> Ni <sub>20</sub> Y <sub>15</sub> X (X = 1, 2, 3) Alloys. Journal of Inorganic and Organometallic Polymers and Materials, 2020, 30, 494-503.	1.9	7
129	Mo-Silicide Alloys for High-Temperature Structural Applications. Materials Performance and Characterization, 2021, 10, 20200183.	0.2	7
130	Solidification of Undercooled Monotectic Alloys. Materials Research Society Symposia Proceedings, 1981, 9, 491.	0.1	6
131	Phase Selection in Undercooled Liquids of Pulsed-Laser Melted Alloys. Materials Research Society Symposia Proceedings, 1988, 100, 573.	0.1	6
132	Solidification Processing of NbCr <sub>2</sub> Alloys. Materials Research Society Symposia Proceedings, 1990, 194, 105.	0.1	6
133	Crystallography of Bcc/T <sub>1</sub> /T <sub>2</sub> Three-Phase Microstructure in the Directionally Solidified Mo-Nb-Si-B Alloy. Materials Research Society Symposia Proceedings, 2015, 1760, 133.	0.1	6
134	Interfacial mixing of nickel vanadium multilayers induced by cold rolling. Acta Materialia, 2015, 87, 68-77.	3.8	6
135	Quantitative characterization of high temperature oxidation using electron tomography and energy-dispersive X-ray spectroscopy. Scientific Reports, 2018, 8, 10239.	1.6	6
136	Reactive modeling of Mo <sub>3</sub> Si oxidation and resulting silica morphology. Acta Materialia, 2020, 187, 93-102.	3.8	6
137	Phase Stability and Solidification Pathways in MoSi <sub>2</sub> Based Alloys. Materials Research Society Symposia Proceedings, 1990, 213, 169.	0.1	5
138	Microstructural Development of Mo(ss) + T <sub>2</sub> Two-Phase Alloys. Materials Research Society Symposia Proceedings, 1998, 552, 1.	0.1	5
139	Interface reactions and reaction synthesis of a high temperature composite system. Metals and Materials International, 2007, 13, 1-12.	1.8	5
140	Nucleation reactions during deformation and crystallization of metallic glass. Journal of Alloys and Compounds, 2012, 536, S55-S59.	2.8	5
141	Environmental Resistant Coatings for High Temperature Mo and Nb Silicide Alloys. MRS Advances, 2017, 2, 1323-1334.	0.5	5
142	Creep of an oxidation resistant coated Mo-9Si-8B alloy. Intermetallics, 2020, 120, 106743.	1.8	5
143	Nanoglass and Nanocrystallization Reactions in Metallic Glasses. Frontiers in Materials, 2021, 8, .	1.2	5
144	Molecular simulation-derived features for machine learning predictions of metal glass forming ability. Computational Materials Science, 2021, 199, 110728.	1.4	5

#	ARTICLE	IF	CITATIONS
145	Oxidation kinetics and microstructure evolution of high Mn stainless-steel alloy in CO <sub>2</sub> at 700°C. <i>Corrosion Science</i> , 2022, 195, 110013.	3.0	5
146	Direct formation of the AlNi <sub>3</sub> phase in Al-75Ni cold rolled multilayers. <i>Journal of Materials Science Letters</i> , 1999, 18, 1449-1451.	0.5	4
147	Phase stability of the intermetallic L21 Heusler alloys of A <sub>2</sub> (Hf <sup>1-x</sup> Zr <sup>x</sup> )Al (where A=Pt and Pd) for an Nb-based high-temperature materials design. <i>Applied Physics Letters</i> , 2005, 87, 261908.	1.5	4
148	Mixing behaviors in Cu/Ni and Ni/V multilayers induced by cold rolling. <i>Journal of Alloys and Compounds</i> , 2015, 643, S246-S249.	2.8	4
149	Analysis of Melt Undercooling and Crystallization Kinetics. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 4898-4907.	1.1	4
150	Resistance of a Mo-Si-B-Based Coating to Environmental Salt-Based Hot Corrosion. <i>Oxidation of Metals</i> , 2020, 93, 387-399.	1.0	4
151	In-Situ TEM Phase Formation in Cold Rolled Aluminum-Nickel Multilayers. <i>Materials Research Society Symposia Proceedings</i> , 1997, 481, 539.	0.1	3
152	Continuous Amorphization of Zr-Based Alloys by Controlled Mechanical Interdiffusion. <i>Materials Research Society Symposia Proceedings</i> , 1998, 554, 173.	0.1	3
153	Low-Temperature, Mercury-Mediated Synthesis of Aluminum Intermetallics. <i>Chemistry of Materials</i> , 2000, 12, 2008-2013.	3.2	3
154	Solidification of Atomized Liquid Droplets. <i>Advanced Engineering Materials</i> , 2002, 4, 147.	1.6	3
155	Deformation Behavior of a Quaternary Mo-Nb-Si-B Alloy. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1295, 355.	0.1	3
156	Deformation-induced nanoscale mixing reactions in Cu/Ni and Ag/Pd multilayers. <i>Applied Physics Letters</i> , 2013, 103, 191904.	1.5	3
157	Interdiffusion in Cu/Ni multilayers induced by cold rolling. <i>Journal of Applied Physics</i> , 2015, 117, 165902.	1.1	3
158	Deformation-driven catalysis of nanocrystallization in amorphous Al alloys. <i>Beilstein Journal of Nanotechnology</i> , 2016, 7, 1428-1433.	1.5	3
159	Direct observation of incommensurate structure in Mo <sub>3</sub> Si. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2016, 72, 660-666.	0.0	3
160	Synthesis of Al metallic glasses designed by molecular dynamics simulations. <i>Journal of Materials Science</i> , 2018, 53, 11488-11499.	1.7	3
161	Solidification of Ni-Re Peritectic Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 772-788.	1.1	3
162	Coating Reactions on Vanadium and V-Si-B Alloys during Powder Pack-Cementation. <i>Materials</i> , 2020, 13, 4099.	1.3	3

#	ARTICLE	IF	CITATIONS
163	Varying kinetic stability, icosahedral ordering, and mechanical properties of a model Zr-Cu-Al metallic glass by sputtering. <i>Physical Review Materials</i> , 2021, 5, .	0.9	3
164	Oxidation of Mo-Si-B Alloys and Coatings in a Water Vapor Environment. <i>Oxidation of Metals</i> , 2021, 96, 323-332.	1.0	3
165	Interfacial Reactions Between Amorphous W-Si Thin Films And Polycrystalline Overlayers. <i>Materials Research Society Symposia Proceedings</i> , 1985, 54, 127.	0.1	2
166	Decomposition Reactions and Toughening in NiAl-Cu Alloys. <i>Materials Research Society Symposia Proceedings</i> , 1990, 194, 405.	0.1	2
167	Columnar microstructure and stress measurements in amorphous W <sub>0.75</sub> Si <sub>0.25</sub> thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1990, 8, 885-890.	0.9	2
168	Kinetic Competition During Duplex Partitionless Solidification in Ni-V Alloys. <i>Materials Research Society Symposia Proceedings</i> , 1995, 398, 57.	0.1	2
169	Equilibrium Thermodynamics Near the Glass Transition - The Conceptual Application of the Limiting Fictive Temperature. <i>Materials Research Society Symposia Proceedings</i> , 1998, 554, 217.	0.1	2
170	Deformation-induced crystallization and amorphization of Al-based metallic glasses. <i>Materials Research Society Symposia Proceedings</i> , 2002, 740, 1.	0.1	2
171	Solid State Amorphization by Cold-Rolling. , 2006, , 1-9.		2
172	Intermetallic Phase Formation in Bulk Multilayered Structures. , 2006, , 324-329.		2
173	Oxidation Response and Coatings for Mo-Si-B Alloys. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1295, 343.	0.1	2
174	Grain Refinement during Melt-spinning of Dilute Cu-base and Ni-base Alloys.. <i>ISIJ International</i> , 1997, 37, 668-676.	0.6	2
175	Liquid-liquid transition kinetics in D-mannitol. <i>Journal of Chemical Physics</i> , 2022, 157, .	1.2	2
176	Kinetic Competition in Undercooled Liquid Alloys. <i>Materials Research Society Symposia Proceedings</i> , 1995, 398, 3.	0.1	1
177	Investigation Of Phase Formation During Cold Rolling Of Elemental Zr-Al-Ni-Cu Foils With Bulk Glass Forming Composition. <i>Materials Research Society Symposia Proceedings</i> , 1997, 481, 427.	0.1	1
178	Strategies for designing composite materials for high temperature application. <i>Metals and Materials International</i> , 1999, 5, 539-544.	0.2	1
179	Diffusion Pathway of Interface Reactions in Amorphous-SiC/Ni. <i>Materials Research Society Symposia Proceedings</i> , 1999, 580, 75.	0.1	1
180	Glass Formation and Nanostructure Development in Al-Based Alloys. <i>Materials Research Society Symposia Proceedings</i> , 1999, 581, 101.	0.1	1

#	ARTICLE	IF	CITATIONS
181	Synthesis and Stability of Amorphous Al Alloys. Materials Research Society Symposia Proceedings, 2000, 644, 471.	0.1	1
182	Growth of The Mo <sub>5</sub> SiB <sub>2</sub> Phase in A Mo <sub>5</sub> Si <sub>3</sub> /Mo <sub>2</sub> B Diffusion Couple. Materials Research Society Symposia Proceedings, 2000, 646, 74.	0.1	1
183	Transition Metal Alloying and Phase Stability in the Mo-Si-B System. Materials Research Society Symposia Proceedings, 2002, 753, 1.	0.1	1
184	Microstructure Development in High-Temperature Mo-Si-B Alloys. Materials Research Society Symposia Proceedings, 2004, 851, 93.	0.1	1
185	Nanostructured Materials:Reaction Kinetics and Stability. Lecture Notes in Physics, 2005, , 221-249.	0.3	1
186	Crystallization control in highly undercooled liquids and glasses. International Journal of Materials Research, 2012, 103, 1083-1089.	0.1	1
187	Stable and Metastable Equilibria in the Pb-Cd System. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 3004-3013.	1.1	1
188	Catalytic Effect of Nanoparticles on Primary and Secondary Phase Nucleation. Materials Science Forum, 0, 765, 250-254.	0.3	1
189	Kinetic Studies of Melting, Crystallization, and Glass Formation. , 2016, , 633-660.		1
190	Metals and Alloys. Handbook of Thermal Analysis and Calorimetry, 2018, 6, 781-828.	1.6	1
191	Pulsed Laser-Induced Melting of Intermediate Cu-Zn Phases. Materials Research Society Symposia Proceedings, 1989, 157, 389.	0.1	0
192	Nanocrystalline Solid Solutions of Cu/Co and Other Novel Nanomaterials. Materials Research Society Symposia Proceedings, 1996, 457, 261.	0.1	0
193	Significance of the Heat of Mixing for the Amorphization of Multilayers by Deformation Processing. Journal of Metastable and Nanocrystalline Materials, 2002, 13, 21-26.	0.1	0
194	Nucleation of (Mo) Precipitates on Dislocations During Annealing of a Mo-rich Mo <sub>5</sub> SiB <sub>2</sub> Phase. Materials Research Society Symposia Proceedings, 2004, 842, 321.	0.1	0
195	The Effect of As-quenched Structure on Primary Phase Crystallization in Amorphous Aluminum Alloys. Materials Research Society Symposia Proceedings, 2005, 903, 1.	0.1	0
196	Nucleation Kinetics Analysis by Repeated Solidification of Single-Droplets. , 2006, , 85-91.		0
197	Analysis of Nucleation and Glass Formation by Chip Calorimetry. Applied Sciences (Switzerland), 2021, 11, 7652.	1.3	0
198	A pulse oxidation facility for the study of oxide nucleation behavior. Review of Scientific Instruments, 2021, 92, 093902.	0.6	0

#	ARTICLE	IF	CITATIONS
199	The undercooling of aluminum. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1991, 18, 1143-1150.	1.4	0
200	Solidification of Ni-Re Peritectic Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, .	1.1	0
201	Alloying reactions in nanostructured multilayers during intense deformation. International Journal of Materials Research, 2022, 94, 1111-1116.	0.1	0