

Jian Luo

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186
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9,911
ext. citations

8.4
avg, IF

6.68
L-index

#	Paper	IF	Citations
172	Grain boundary complexions. <i>Acta Materialia</i> , 2014 , 62, 1-48	8.4	497
171	High-Entropy Metal Diborides: A New Class of High-Entropy Materials and a New Type of Ultrahigh Temperature Ceramics. <i>Scientific Reports</i> , 2016 , 6, 37946	4.9	409
170	A new class of high-entropy perovskite oxides. <i>Scripta Materialia</i> , 2018 , 142, 116-120	5.6	318
169	Long range interactions in nanoscale science. <i>Reviews of Modern Physics</i> , 2010 , 82, 1887-1944	40.5	304
168	Interfacial Stability of Li Metal-Solid Electrolyte Elucidated via in Situ Electron Microscopy. <i>Nano Letters</i> , 2016 , 16, 7030-7036	11.5	239
167	High-entropy fluorite oxides. <i>Journal of the European Ceramic Society</i> , 2018 , 38, 3578-3584	6	223
166	Phase stability and mechanical properties of novel high entropy transition metal carbides. <i>Acta Materialia</i> , 2019 , 166, 271-280	8.4	213
165	The role of a bilayer interfacial phase on liquid metal embrittlement. <i>Science</i> , 2011 , 333, 1730-3	33.3	204
164	Elastic Properties of Alkali Superionic Conductor Electrolytes from First Principles Calculations. <i>Journal of the Electrochemical Society</i> , 2016 , 163, A67-A74	3.9	188
163	Thermal runaway, flash sintering and asymmetrical microstructural development of ZnO and ZnOBi ₂ O ₃ under direct currents. <i>Acta Materialia</i> , 2015 , 94, 87-100	8.4	174
162	Thin intergranular films and solid-state activated sintering in nickel-doped tungsten. <i>Acta Materialia</i> , 2007 , 55, 3131-3142	8.4	171
161	A general method to synthesize and sinter bulk ceramics in seconds. <i>Science</i> , 2020 , 368, 521-526	33.3	153
160	Stabilization of Nanoscale Quasi-Liquid Interfacial Films in Inorganic Materials: A Review and Critical Assessment. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2007 , 32, 67-109	10.1	145
159	A fabrication process for flexible single-crystal perovskite devices. <i>Nature</i> , 2020 , 583, 790-795	50.4	143
158	Origin of Solid-State Activated Sintering in Bi ₂ O ₃ -Doped ZnO. <i>Journal of the American Ceramic Society</i> , 1999 , 82, 916-920	3.8	123
157	Segregation-induced grain boundary premelting in nickel-doped tungsten. <i>Applied Physics Letters</i> , 2005 , 87, 231902	3.4	120
156	Nanolithography. Large-scale nanoshaping of ultrasmooth 3D crystalline metallic structures. <i>Science</i> , 2014 , 346, 1352-6	33.3	113

155	Wetting and Prewetting on Ceramic Surfaces. <i>Annual Review of Materials Research</i> , 2008 , 38, 227-249	12.8	113
154	Probing the densification mechanisms during flash sintering of ZnO. <i>Acta Materialia</i> , 2017 , 125, 465-475	8.4	100
153	Segregation-induced ordered superstructures at general grain boundaries in a nickel-bismuth alloy. <i>Science</i> , 2017 , 358, 97-101	33.3	96
152	A high-entropy silicide: (Mo _{0.2} Nb _{0.2} Ta _{0.2} Ti _{0.2} W _{0.2})Si ₂ . <i>Journal of Materiomics</i> , 2019 , 5, 337-343	6.7	90
151	Liquid-like interface complexion: From activated sintering to grain boundary diagrams. <i>Current Opinion in Solid State and Materials Science</i> , 2008 , 12, 81-88	12	82
150	Divalent-doped Na ₃ Zr ₂ Si ₂ PO ₁₂ sodium superionic conductor: Improving the ionic conductivity via simultaneously optimizing the phase and chemistry of the primary and secondary phases. <i>Journal of Power Sources</i> , 2017 , 347, 229-237	8.9	77
149	Existence and stability of nanometer-thick disordered films on oxide surfaces. <i>Acta Materialia</i> , 2000 , 48, 4501-4515	8.4	76
148	Promoting the flash sintering of ZnO in reduced atmospheres to achieve nearly full densities at furnace temperatures of . <i>Scripta Materialia</i> , 2015 , 106, 26-29	5.6	72
147	Size disorder as a descriptor for predicting reduced thermal conductivity in medium- and high-entropy pyrochlore oxides. <i>Scripta Materialia</i> , 2020 , 181, 76-81	5.6	71
146	Grain boundary complexions in ceramics and metals: An overview. <i>Jom</i> , 2009 , 61, 38-44	2.1	71
145	Growth, nitrogen doping and characterization of isolated single-wall carbon nanotubes using liquid precursors. <i>Chemical Physics Letters</i> , 2005 , 412, 269-273	2.5	71
144	From high-entropy ceramics to compositionally-complex ceramics: A case study of fluorite oxides. <i>Journal of the European Ceramic Society</i> , 2020 , 40, 2120-2129	6	71
143	Water-assisted flash sintering: Flashing ZnO at room temperature to achieve ~ 98% density in seconds. <i>Scripta Materialia</i> , 2018 , 142, 79-82	5.6	68
142	Stabilization of nanocrystalline alloys at high temperatures via utilizing high-entropy grain boundary complexions. <i>Scripta Materialia</i> , 2016 , 124, 160-163	5.6	67
141	A step forward from high-entropy ceramics to compositionally complex ceramics: a new perspective. <i>Journal of Materials Science</i> , 2020 , 55, 9812-9827	4.3	62
140	Reactive flash spark plasma sintering of high-entropy ultrahigh temperature ceramics. <i>Scripta Materialia</i> , 2019 , 170, 106-110	5.6	61
139	Intrinsic ductility of glassy solids. <i>Journal of Applied Physics</i> , 2014 , 115, 043528	2.5	61
138	Developing Interfacial Phase Diagrams for Applications in Activated Sintering and Beyond: Current Status and Future Directions. <i>Journal of the American Ceramic Society</i> , 2012 , 95, 2358-2371	3.8	61

137	Identification of a bilayer grain boundary complexion in Bi-doped Cu. <i>Scripta Materialia</i> , 2013 , 68, 146-149	6	61
136	Grain boundary wetting and prewetting in Ni-doped Mo. <i>Applied Physics Letters</i> , 2009 , 94, 251908	3.4	60
135	Grain boundary disordering in binary alloys. <i>Applied Physics Letters</i> , 2008 , 92, 101901	3.4	60
134	Nanometer-thick surficial films in oxides as a case of prewetting. <i>Langmuir</i> , 2005 , 21, 7358-65	4	60
133	Developing grain boundary diagrams as a materials science tool: A case study of nickel-doped molybdenum. <i>Physical Review B</i> , 2011 , 84,	3.3	55
132	Synthesis of NiCo ₂ S ₄ -based nanostructured electrodes supported on nickel foams with superior electrochemical performance. <i>Journal of Materials Science</i> , 2016 , 51, 1903-1913	4.3	53
131	Controlled Homoepitaxial Growth of Hybrid Perovskites. <i>Advanced Materials</i> , 2018 , 30, e1705992	24	51
130	Grain boundary complexions: The interplay of premelting, prewetting, and multilayer adsorption. <i>Applied Physics Letters</i> , 2009 , 95, 071911	3.4	50
129	Enhancing the electrochemical performance of Li-rich layered oxide Li _{1.13} Ni _{0.3} Mn _{0.57} O ₂ via WO ₃ doping and accompanying spontaneous surface phase formation. <i>Journal of Power Sources</i> , 2018 , 375, 21-28	8.9	47
128	Denary oxide nanoparticles as highly stable catalysts for methane combustion. <i>Nature Catalysis</i> , 2021 , 4, 62-70	36.5	45
127	The scientific questions and technological opportunities of flash sintering: From a case study of ZnO to other ceramics. <i>Scripta Materialia</i> , 2018 , 146, 260-266	5.6	45
126	Surface adsorption and disordering in LiFePO ₄ based battery cathodes. <i>Applied Physics Letters</i> , 2009 , 95, 221905	3.4	44
125	Grain boundary complexions in multicomponent alloys: Challenges and opportunities. <i>Current Opinion in Solid State and Materials Science</i> , 2016 , 20, 268-277	12	44
124	Computational study of metallic dopant segregation and embrittlement at molybdenum grain boundaries. <i>Acta Materialia</i> , 2016 , 117, 91-99	8.4	43
123	Single-phase high-entropy intermetallic compounds (HEICs): bridging high-entropy alloys and ceramics. <i>Science Bulletin</i> , 2019 , 64, 856-864	10.6	41
122	Thermal conductivity and hardness of three single-phase high-entropy metal diborides fabricated by borocarbothermal reduction and spark plasma sintering. <i>Ceramics International</i> , 2020 , 46, 6906-6913	5.1	41
121	Developing grain boundary diagrams for multicomponent alloys. <i>Acta Materialia</i> , 2015 , 91, 202-216	8.4	40
120	Pressure-balance and diffuse-interface models for surficial amorphous films. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006 , 422, 19-28	5.3	40

119	Equilibrium-thickness Amorphous Films on {112 0} surfaces of Bi ₂ O ₃ -doped ZnO. <i>Journal of the European Ceramic Society</i> , 1999 , 19, 697-701	6	40
118	Cold sintering and ionic conductivities of Na _{3.256} Mg _{0.128} Zr _{1.872} Si ₂ PO ₁₂ solid electrolytes. <i>Journal of Power Sources</i> , 2018 , 391, 170-179	8.9	38
117	Improvement of hydrothermally synthesized MnO ₂ electrodes on Ni foams via facile annealing for supercapacitor applications. <i>Journal of Materials Science</i> , 2014 , 49, 6118-6126	4.3	35
116	Quantum-accurate spectral neighbor analysis potential models for Ni-Mo binary alloys and fcc metals. <i>Physical Review B</i> , 2018 , 98,	3.3	35
115	A grain boundary phase transition in Si ₃ N ₄ . <i>Scripta Materialia</i> , 2012 , 66, 203-206	5.6	34
114	Advanced Materials for High-Temperature Thermal Transport. <i>Advanced Functional Materials</i> , 2020 , 30, 1904815	15.6	34
113	Interfacial engineering of solid electrolytes. <i>Journal of Materiomics</i> , 2015 , 1, 22-32	6.7	33
112	Dual-phase high-entropy ultra-high temperature ceramics. <i>Journal of the European Ceramic Society</i> , 2020 , 40, 5037-5050	6	33
111	Effects of phase and doping on flash sintering of TiO ₂ . <i>Journal of the Ceramic Society of Japan</i> , 2016 , 124, 296-300	1	33
110	Enhancing the Ion Transport in LiMnNiO by Altering the Particle Wulff Shape via Anisotropic Surface Segregation. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 36745-36754	9.5	32
109	Suppressed phase transition and giant ionic conductivity in La ₂ Mo ₂ O ₉ nanowires. <i>Nature Communications</i> , 2015 , 6, 8354	17.4	32
108	First-Order Interfacial Transformations with a Critical Point: Breaking the Symmetry at a Symmetric Tilt Grain Boundary. <i>Physical Review Letters</i> , 2018 , 120, 085702	7.4	31
107	Role of disordered bipolar complexions on the sulfur embrittlement of nickel general grain boundaries. <i>Nature Communications</i> , 2018 , 9, 2764	17.4	31
106	Vanadia-based equilibrium-thickness amorphous films on anatase (101) surfaces. <i>Applied Physics Letters</i> , 2007 , 91, 061909	3.4	31
105	Part I: Theoretical predictions of preferential oxidation in refractory high entropy materials. <i>Acta Materialia</i> , 2020 , 197, 20-27	8.4	30
104	A simple method for evaluating elastic modulus of thin films by nanoindentation. <i>Journal of Materials Research</i> , 2009 , 24, 801-815	2.5	29
103	Experimental and Computational Evaluation of a Sodium-Rich Anti-Perovskite for Solid State Electrolytes. <i>Journal of the Electrochemical Society</i> , 2016 , 163, A2165-A2171	3.9	29
102	Two-step flash sintering of ZnO: Fast densification with suppressed grain growth. <i>Scripta Materialia</i> , 2017 , 141, 6-9	5.6	28

101	Grain boundary complexion transitions in WO ₃ - and CuO-doped TiO ₂ bicrystals. <i>Acta Materialia</i> , 2013 , 61, 1691-1704	8.4	27
100	The effects of external fields in ceramic sintering. <i>Journal of the American Ceramic Society</i> , 2019 , 102, 5-31	3.8	27
99	Enhancing the visible-light photocatalytic activity of TiO ₂ by heat treatments in reducing environments. <i>Materials Letters</i> , 2013 , 98, 205-208	3.3	26
98	Decreasing the grain boundary diffusivity in binary alloys with increasing temperature. <i>Physical Review Letters</i> , 2010 , 105, 236102	7.4	26
97	Anisotropic wetting of ZnO by Bi ₂ O ₃ with and without nanometer-thick surficial amorphous films. <i>Acta Materialia</i> , 2008 , 56, 862-873	8.4	26
96	Nanoscale surficial films and a surface transition in V ₂ O ₅ /TiO ₂ -based ternary oxide systems. <i>Acta Materialia</i> , 2008 , 56, 4702-4714	8.4	26
95	Layering transitions at grain boundaries. <i>Current Opinion in Solid State and Materials Science</i> , 2016 , 20, 225-230	12	26
94	First-principles studies of polar perovskite KTaO surfaces: structural reconstruction, charge compensation, and stability diagram. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 18515-18527	3.6	26
93	Liquid-like grain boundary complexion and sub-eutectic activated sintering in CuO-doped TiO ₂ . <i>Acta Materialia</i> , 2017 , 130, 329-338	8.4	25
92	Part II: Experimental verification of computationally predicted preferential oxidation of refractory high entropy ultra-high temperature ceramics. <i>Acta Materialia</i> , 2020 , 197, 81-90	8.4	25
91	Etching anisotropy mechanisms lead to morphology-controlled silicon nanoporous structures by metal assisted chemical etching. <i>Nanoscale</i> , 2016 , 8, 3085-92	7.7	25
90	A facile nitridation method to improve the rate capability of TiO ₂ for lithium-ion batteries. <i>Journal of Power Sources</i> , 2014 , 245, 594-598	8.9	25
89	A facile and generic method to improve cathode materials for lithium-ion batteries via utilizing nanoscale surface amorphous films of self-regulating thickness. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 7786-98	3.6	25
88	Grain-boundary layering transitions in a model bicrystal. <i>Surface Science</i> , 2013 , 618, 88-93	1.8	25
87	Printable, high-performance solid-state electrolyte films. <i>Science Advances</i> , 2020 , 6,	14.3	25
86	Interface Energetics and Charge Carrier Density Amplification by Sn-Doping in LaAlO ₃ /SrTiO ₃ Heterostructure. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 14294-302	9.5	23
85	Efficient Direct Recycling of Degraded LiMnO Cathodes by One-Step Hydrothermal Relithiation. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 51546-51554	9.5	23
84	Impurity effects on the intergranular liquid bismuth penetration in polycrystalline nickel. <i>Acta Materialia</i> , 2012 , 60, 149-165	8.4	23

83	Dissolving and stabilizing soft WB ₂ and MoB ₂ phases into high-entropy borides via boron-metals reactive sintering to attain higher hardness. <i>Journal of the European Ceramic Society</i> , 2020 , 40, 4348-4353	6	23
82	High-entropy monoborides: Towards superhard materials. <i>Scripta Materialia</i> , 2020 , 189, 101-105	5.6	23
81	Enhancing the Electrochemical Performance of Lithium-Excess Layered Oxide Li _{1.13} Ni _{0.3} Mn _{0.57} O ₂ via a Facile Nanoscale Surface Modification. <i>Journal of the Electrochemical Society</i> , 2016 , 163, A971-A973	3.9	22
80	Correlations between microstructure, fracture morphology, and fracture toughness of nanocrystalline NiW alloys. <i>Scripta Materialia</i> , 2016 , 113, 84-88	5.6	22
79	Genetic algorithm-guided deep learning of grain boundary diagrams: Addressing the challenge of five degrees of freedom. <i>Materials Today</i> , 2020 , 38, 49-57	21.8	21
78	Developing thermodynamic stability diagrams for equilibrium-grain-size binary alloys. <i>Materials Letters</i> , 2014 , 115, 268-271	3.3	21
77	Nb and Ta layer doping effects on the interfacial energetics and electronic properties of LaAlO ₃ /SrTiO ₃ heterostructure: first-principles analysis. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 2379-88	3.6	20
76	Evaluation of the elasticity normal to the basal plane of non-expandable 2:1 phyllosilicate minerals by nanoindentation. <i>American Mineralogist</i> , 2010 , 95, 863-869	2.9	20
75	Native point defect formation in flash sintered ZnO studied by depth-resolved cathodoluminescence spectroscopy. <i>Journal of Applied Physics</i> , 2016 , 120, 105302	2.5	20
74	High-entropy nanoparticles: Synthesis-structure-property relationships and data-driven discovery. <i>Science</i> , 2022 , 376, eabn3103	33.3	19
73	Sand corrosion, thermal expansion, and ablation of medium- and high-entropy compositionally complex fluorite oxides. <i>Journal of the American Ceramic Society</i> , 2021 , 104, 448-462	3.8	18
72	The role of ceramic and glass science research in meeting societal challenges: Report from an NSF-sponsored workshop. <i>Journal of the American Ceramic Society</i> , 2017 , 100, 1777-1803	3.8	17
71	Calculation and validation of a grain boundary complexion diagram for Bi-doped Ni. <i>Scripta Materialia</i> , 2017 , 130, 165-169	5.6	17
70	Aimsgb: An algorithm and open-source python library to generate periodic grain boundary structures. <i>Computational Materials Science</i> , 2018 , 155, 92-103	3.2	16
69	Polarization of Pd atoms in Ni/Pd magnetic multilayers. <i>Journal of Physics Condensed Matter</i> , 1995 , 7, 1121-1128	1.8	16
68	A highly asymmetric interfacial superstructure in WC: expanding the classic grain boundary segregation and new complexion theories. <i>Materials Horizons</i> , 2020 , 7, 173-180	14.4	16
67	Stabilizing Nanocrystalline Oxide Nanofibers at Elevated Temperatures by Coating Nanoscale Surface Amorphous Films. <i>Nano Letters</i> , 2018 , 18, 130-136	11.5	16
66	A Short Review of High-Temperature Wetting and Complexion Transitions with a Critical Assessment of Their Influence on Liquid Metal Embrittlement and Corrosion. <i>Corrosion</i> , 2016 , 72, 897-910	10 ⁸	15

65	Let thermodynamics do the interfacial engineering of batteries and solid electrolytes. <i>Energy Storage Materials</i> , 2019 , 21, 50-60	19.4	13
64	Layer-by-layer assembly of sol-gel oxide-glued montmorillonite-zirconia multilayers. <i>Journal of Materials Chemistry</i> , 2010 , 20, 4925		13
63	Tailoring grain growth and densification toward a high-performance solid-state electrolyte membrane. <i>Materials Today</i> , 2021 , 42, 41-48	21.8	13
62	A new class of high-entropy M3B4 borides. <i>Journal of Advanced Ceramics</i> , 2021 , 10, 166-172	10.7	13
61	First-order grain boundary transformations in Au-doped Si: Hybrid Monte Carlo and molecular dynamics simulations verified by first-principles calculations. <i>Scripta Materialia</i> , 2019 , 158, 11-15	5.6	12
60	Solution-based synthesis of oxide thin films via a layer-by-layer deposition method: Feasibility and a phenomenological film growth model. <i>Surface and Coatings Technology</i> , 2008 , 202, 2690-2697	4.4	12
59	Quantitative X-ray diffraction analysis of surface layers by computed depth profiling. <i>Thin Solid Films</i> , 1996 , 279, 53-58	2.2	12
58	High-entropy intermetallic compound with ultra-high strength and thermal stability. <i>Scripta Materialia</i> , 2021 , 194, 113674	5.6	12
57	Single-phase duodenary high-entropy fluorite/pyrochlore oxides with an order-disorder transition. <i>Acta Materialia</i> , 2021 , 211, 116858	8.4	11
56	Comparison Studies of Interfacial Electronic and Energetic Properties of LaAlO ₃ /TiO ₂ and TiO ₂ /LaAlO ₃ Heterostructures from First-Principles Calculations. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 7682-7690 ¹⁰	9.5	10
55	Effects of sintering aids on the densification of MoSiB alloys. <i>Journal of Materials Science</i> , 2012 , 47, 8308-8319	4.3	10
54	Discovery of electrochemically induced grain boundary transitions. <i>Nature Communications</i> , 2021 , 12, 2374	17.4	10
53	High-entropy rare earth tetraborides. <i>Journal of the European Ceramic Society</i> , 2021 , 41, 2968-2973	6	10
52	An Order-Disorder Transition in Surface Complexions and Its Influence on Crystal Growth of Boron-Rich Nanostructures. <i>Crystal Growth and Design</i> , 2015 , 15, 3547-3551	3.5	9
51	Layer-by-layer deposition of zirconia thin films from aqueous solutions. <i>Materials Letters</i> , 2008 , 62, 117-120	3.9	9
50	A Perspective on interfacial engineering of lithium metal anodes and beyond. <i>Applied Physics Letters</i> , 2020 , 117, 080504	3.4	9
49	Interface Stabilized Nanoscale Quasi-Liquid Films. <i>Microscopy Today</i> , 2009 , 17, 22-27	0.4	8
48	Interfacial superstructures and chemical bonding transitions at metal-ceramic interfaces. <i>Science Advances</i> , 2021 , 7,	14.3	8

47	High-Temperature Ultrafast Sintering: Exploiting a New Kinetic Region to Fabricate Porous Solid-State Electrolyte Scaffolds. <i>Advanced Materials</i> , 2021 , 33, e2100726	24	8
46	Flash sintering activated by bulk phase and grain boundary complexation transformations. <i>Acta Materialia</i> , 2019 , 181, 544-554	8.4	7
45	Synthesis of Nanostructured Nanoclay-Zirconia Multilayers: a Feasibility Study. <i>Journal of Nanomaterials</i> , 2008 , 2008, 1-8	3.2	7
44	Combining cold sintering and Bi ₂ O ₃ -Activated liquid-phase sintering to fabricate high-conductivity Mg-doped NASICON at reduced temperatures. <i>Journal of Materiomics</i> , 2019 , 5, 237-246	6.7	7
43	Ultrafast Sintering of Solid-State Electrolytes with Volatile Fillers. <i>ACS Energy Letters</i> , 3753-3760	20.1	7
42	Pseudocapacitive Properties of Two-Dimensional Surface Vanadia Phases Formed Spontaneously on Titania. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 12871-80	9.5	6
41	Observation of an unusual case of triple-line instability. <i>Scripta Materialia</i> , 2014 , 88, 45-48	5.6	6
40	Doping Effects on Electronic and Energetic Properties of LaAlO ₃ /SrTiO ₃ Heterostructure: First-Principles Analysis of 23 Transition-Metal Dopants. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1700579 ^{4.6}	4.6	6
39	Embedding Ba Monolayers and Bilayers in Boron Carbide Nanowires. <i>Scientific Reports</i> , 2015 , 5, 16960	4.9	6
38	Discovery of nanoscale reduced surfaces and interfaces in VO ₂ thin films as a unique case of prewetting. <i>Scripta Materialia</i> , 2014 , 78-79, 41-44	5.6	6
37	. <i>Journal of Lightwave Technology</i> , 2007 , 25, 3575-3579	4	6
36	Microcathodoluminescence spectroscopy of defects in Bi ₂ O ₃ -doped ZnO grains. <i>Journal of Applied Physics</i> , 2002 , 92, 5072-5076	2.5	6
35	The local stress state of a running shear band in amorphous solids. <i>Journal of Materials Research</i> , 2015 , 30, 1979-1987	2.5	5
34	Direct structure depth profiling of polycrystalline thin films by X-ray diffraction and its application. <i>Thin Solid Films</i> , 1999 , 353, 56-61	2.2	5
33	Multi-principal elemental intermetallic nanoparticles synthesized via a disorder-to-order transition.. <i>Science Advances</i> , 2022 , 8, eabm4322	14.3	5
32	Grain growth and interfacial structures in SiC fibers. <i>Ceramics International</i> , 2020 , 46, 10279-10283	5.1	5
31	Bulk high-entropy hexaborides. <i>Journal of the European Ceramic Society</i> , 2021 , 41, 5775-5781	6	5
30	Deformation and Transitions at Interfaces and Grain Boundaries. <i>Jom</i> , 2019 , 71, 1198-1199	2.1	4

29	Construction and testing of coin cells of lithium ion batteries. <i>Journal of Visualized Experiments</i> , 2012 , e4104	1.6	4
28	Far-from-equilibrium effects of electric and electromagnetic fields in ceramics synthesis and processing. <i>MRS Bulletin</i> , 2021 , 46, 26-35	3.2	4
27	Synergic grain boundary segregation and precipitation in W- and W-Mo-containing high-entropy borides. <i>Journal of the European Ceramic Society</i> , 2021 , 41, 5380-5387	6	4
26	Accelerating materials discovery with Bayesian optimization and graph deep learning. <i>Materials Today</i> , 2021 ,	21.8	4
25	The interfacial structure underpinning the Al-Ga liquid metal embrittlement: disorder vs. order gradients. <i>Scripta Materialia</i> , 2021 , 204, 114149	5.6	4
24	First-principles study of impurity segregation in zirconia, hafnia, and yttria-stabilized-zirconia grain boundaries. <i>Journal of the European Ceramic Society</i> , 2019 , 39, 3812-3820	6	3
23	A development mechanism of graded microstructures in iron-containing SiC fibers revealed by electron microscopy. <i>Materials Characterization</i> , 2020 , 162, 110177	3.9	3
22	Composites of sodium manganese oxides with enhanced electrochemical performance for sodium-ion batteries: Tailoring properties via controlling microstructure. <i>Science China Technological Sciences</i> , 2016 , 59, 1042-1047	3.5	3
21	Studies on nondestructive depth resolved XRD method. <i>Powder Diffraction</i> , 1996 , 11, 117-120	1.8	3
20	Studies on quantitative x-ray diffraction characterization of phase depth profiles. <i>Review of Scientific Instruments</i> , 1996 , 67, 2859-2862	1.7	3
19	Rapid Synthesis of High-Entropy Oxide Microparticles.. <i>Small</i> , 2022 , e2104761	11	3
18	A new type of compositionally complex M5Si3 silicides: Cation ordering and unexpected phase stability. <i>Scripta Materialia</i> , 2022 , 212, 114557	5.6	3
17	Abnormal grain growth in iron-containing SiC fibers. <i>Journal of the European Ceramic Society</i> , 2021 , 41, 2306-2311	6	3
16	Formation of stacking faults in tungsten carbide during sintering. <i>Ceramics International</i> , 2020 , 46, 15851-15857	5	3
15	Oxygen vacancy formation in the SrTiO3 [001] twist grain boundary from first-principles. <i>Journal of the American Ceramic Society</i> , 2018 , 101, 3118-3129	3.8	2
14	An Overview of Mechanical Strength of Optical Fiber Fusion Splices: Examples of Fractographic Analysis of Break Causes. <i>Fiber and Integrated Optics</i> , 2008 , 27, 45-60	0.8	2
13	Grain boundary segregation transitions and critical phenomena in binary regular solutions: A systematics of complexion diagrams with universal characters. <i>Acta Materialia</i> , 2021 , 221, 117375	8.4	2
12	21-Component compositionally complex ceramics: Discovery of ultrahigh-entropy weberite and fergusonite phases and a pyrochlore-weberite transition. <i>Journal of Advanced Ceramics</i> , 2022 , 11, 641-655	10.7	2

11	Discovery of a reversible redox-induced order-disorder transition in a 10-component compositionally complex ceramic. <i>Scripta Materialia</i> , 2022 , 215, 114699	5.6	2
10	Cryogenic Milling Method to Fabricate Nanostructured Anodes. <i>ACS Applied Energy Materials</i> , 2020 , 3, 11285-11292	6.1	1
9	Oxidative Stabilization of Dilute Ether Electrolytes via Anion Modification. <i>ACS Energy Letters</i> , 2022 , 7, 675-682	20.1	1
8	Thermodynamics-driven interfacial engineering of alloy-type anode materials. <i>Cell Reports Physical Science</i> , 2022 , 3, 100694	6.1	1
7	Rapid Pressureless Sintering of Glasses.. <i>Small</i> , 2022 , e2107951	11	1
6	Short-Range Order and Origin of the Low Thermal Conductivity in Compositionally Complex Rare-Earth Niobates and Tantalates. <i>Acta Materialia</i> , 2022 , 118056	8.4	1
5	Atomistic observation of in situ fractured surfaces at a V-doped WC-Co interface. <i>Journal of Materials Science and Technology</i> , 2021 , 110, 103-103	9.1	0
4	Avoiding dendrite formation by confining lithium deposition underneath Li ₈ N coatings. <i>Journal of Materials Research</i> , 2021 , 36, 797-811	2.5	0
3	Interface-Stabilized Nanoscale Quasi-Liquid Films and Interfacial Prewetting and Premelting Transitions. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 979, 1		
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1	Low-Cost Li SPAN Batteries Enabled by Sustained Additive Release. <i>ACS Applied Energy Materials</i> , 2021 , 4, 6422-6429	6.1	