

## List of Publications by Year in descending order

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	31902	30848
12,203	53	102
citations	h-index	g-index
239	239	9552
docs citations	times ranked	citing authors
	citations 239	12,203 53   citations h-index   239 239

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#	Article	IF	CITATIONS
1	A precipitation-hardened high-entropy alloy with outstanding tensile properties. Acta Materialia, 2016, 102, 187-196.	3.8	1,665
2	Enhanced strength and ductility in a high-entropy alloy via ordered oxygen complexes. Nature, 2018, 563, 546-550.	13.7	988
3	Gas–solid interfacial modification of oxygen activity in layered oxide cathodes for lithium-ion batteries. Nature Communications, 2016, 7, 12108.	5.8	531
4	Phaseâ€Transformation Ductilization of Brittle Highâ€Entropy Alloys via Metastability Engineering. Advanced Materials, 2017, 29, 1701678.	11.1	421
5	A disordered rock salt anode for fast-charging lithium-ion batteries. Nature, 2020, 585, 63-67.	13.7	326
6	Lattice distortion in a strong and ductile refractory high-entropy alloy. Acta Materialia, 2018, 160, 158-172.	3.8	325
7	Gradient cell–structured high-entropy alloy with exceptional strength and ductility. Science, 2021, 374, 984-989.	6.0	316
8	Efficient Direct Recycling of Lithium-Ion Battery Cathodes by Targeted Healing. Joule, 2020, 4, 2609-2626.	11.7	260
9	First In Situ Lattice Strains Measurements Under Load at VULCAN. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 95-99.	1.1	201
10	An Air‣table Na <sub>3</sub> SbS <sub>4</sub> Superionic Conductor Prepared by a Rapid and Economic Synthetic Procedure. Angewandte Chemie - International Edition, 2016, 55, 8551-8555.	7.2	183
11	High performance aluminum–cerium alloys for high-temperature applications. Materials Horizons, 2017, 4, 1070-1078.	6.4	155
12	Bifunctional nanoprecipitates strengthen and ductilize a medium-entropy alloy. Nature, 2021, 595, 245-249.	13.7	141
13	Visualizing the chemistry and structure dynamics in lithium-ion batteries by in-situ neutron diffraction. Scientific Reports, 2012, 2, 747.	1.6	134
14	Formation, structure and properties of biocompatible TiZrHfNbTa high-entropy alloys. Materials Research Letters, 2019, 7, 225-231.	4.1	131
15	Latticeâ€Distortionâ€Enhanced Yield Strength in a Refractory Highâ€Entropy Alloy. Advanced Materials, 2020, 32, e2004029.	11.1	121
16	First-principles and machine learning predictions of elasticity in severely lattice-distorted high-entropy alloys with experimental validation. Acta Materialia, 2019, 181, 124-138.	3.8	113
17	High-throughput design of high-performance lightweight high-entropy alloys. Nature Communications, 2021, 12, 4329.	5.8	112
18	<i>In situ</i> construction of hydrazone-linked COF-based core–shell hetero-frameworks for enhanced photocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2020, 8, 7724-7732.	5.2	108

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19	In-situ observation of inhomogeneous degradation in large format Li-ion cells by neutron diffraction. Journal of Power Sources, 2013, 236, 163-168.	4.0	107
20	What is the Role of Nb in Nickel-Rich Layered Oxide Cathodes for Lithium-Ion Batteries?. ACS Energy Letters, 0, , 1377-1382.	8.8	107
21	Neutron residual stress measurement and numerical modeling in a curved thin-walled structure by laser powder bed fusion additive manufacturing. Materials and Design, 2017, 135, 122-132.	3.3	106
22	Enhancing fatigue life by ductile-transformable multicomponent B2 precipitates in a high-entropy alloy. Nature Communications, 2021, 12, 3588.	5.8	102
23	Mixed-conducting interlayer boosting the electrochemical performance of Ni-rich layered oxide cathode materials for lithium ion batteries. Journal of Power Sources, 2019, 421, 91-99.	4.0	101
24	Temperature dependence of elastic and plastic deformation behavior of a refractory high-entropy alloy. Science Advances, 2020, 6, .	4.7	101
25	The effect of oxygen vacancy and spinel phase integration on both anionic and cationic redox in Li-rich cathode materials. Journal of Materials Chemistry A, 2020, 8, 7733-7745.	5.2	101
26	Origin of High Li <sup>+</sup> Conduction in Doped Li <sub>7</sub> La <sub>3</sub> Zr <sub>2</sub> O <sub>12</sub> Garnets. Chemistry of Materials, 2015, 27, 5491-5494.	3.2	100
27	Operando Lithium Dynamics in the Liâ€Rich Layered Oxide Cathode Material via Neutron Diffraction. Advanced Energy Materials, 2016, 6, 1502143.	10.2	98
28	Thermophysical properties of Ni-containing single-phase concentrated solid solution alloys. Materials and Design, 2017, 117, 185-192.	3.3	96
29	Transformation-induced plasticity in bulk metallic glass composites evidenced by in-situ neutron diffraction. Acta Materialia, 2017, 124, 478-488.	3.8	93
30	A suite-level review of the neutron powder diffraction instruments at Oak Ridge National Laboratory. Review of Scientific Instruments, 2018, 89, 092701.	0.6	90
31	Transformation-reinforced high-entropy alloys with superior mechanical properties via tailoring stacking fault energy. Journal of Alloys and Compounds, 2019, 792, 444-455.	2.8	90
32	Superior Highâ€Temperature Strength in a Supersaturated Refractory Highâ€Entropy Alloy. Advanced Materials, 2021, 33, e2102401.	11.1	89
33	Understanding the Role of NH <sub>4</sub> F and Al <sub>2</sub> O <sub>3</sub> Surface Co-modification on Lithium-Excess Layered Oxide Li <sub>1.2</sub> Ni <sub>0.2</sub> Mn <sub>0.6</sub> O <sub>2</sub> . ACS Applied Materials & amp; Interfaces. 2015. 7. 19189-19200.	4.0	87
34	On the Swift effect and twinning in a rolled magnesium alloy under free-end torsion. Scripta Materialia, 2013, 69, 319-322.	2.6	83
35	Design and Optimization of the Direct Recycling of Spent Li-Ion Battery Cathode Materials. ACS Sustainable Chemistry and Engineering, 2021, 9, 4543-4553.	3.2	81
36	Improving the oxygen redox reversibility of Li-rich battery cathode materials via Coulombic repulsive interactions strategy. Nature Communications, 2022, 13, 1123.	5.8	81

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37	In-situ neutron diffraction study of the xLi2MnO3·(1Ââ^'Âx)LiMO2 (xÂ=Â0,Â0.5; MÂ=ÂNi, Mn, Co) layered oxide compounds during electrochemical cycling. Journal of Power Sources, 2013, 240, 772-778.	4.0	79
38	Stress partitioning behavior of an AlSi10Mg alloy produced by selective laser melting during tensile deformation using in situ neutron diffraction. Journal of Alloys and Compounds, 2016, 686, 281-286.	2.8	79
39	Enhanced piezoelectricity and nature of electric-field induced structural phase transformation in textured lead-free piezoelectric Na0.5Bi0.5TiO3-BaTiO3 ceramics. Applied Physics Letters, 2012, 100, .	1.5	77
40	Structure Evolution and Thermoelectric Properties of Carbonized Polydopamine Thin Films. ACS Applied Materials & Interfaces, 2017, 9, 6655-6660.	4.0	77
41	Solving the strength-ductility tradeoff in the medium-entropy NiCoCr alloy via interstitial strengthening of carbon. Intermetallics, 2019, 106, 77-87.	1.8	77
42	In situneutron diffraction measurements of temperature and stresses during friction stir welding of 6061-T6 aluminium alloy. Science and Technology of Welding and Joining, 2007, 12, 298-303.	1.5	75
43	Origin of high piezoelectric response in A-site disordered morphotropic phase boundary composition of <i>lead-free</i> piezoelectric 0.93(Na0.5Bi0.5)TiO3–0.07BaTiO3. Journal of Applied Physics, 2013, 113, .	1.1	74
44	Investigation of deformation dynamics in a wrought magnesium alloy. International Journal of Plasticity, 2014, 62, 105-120.	4.1	74
45	Micromechanical characterization of casting-induced inhomogeneity in an Al0.8CoCrCuFeNi high-entropy alloy. Scripta Materialia, 2011, 64, 868-871.	2.6	69
46	A high-conduction Ge substituted Li <sub>3</sub> AsS <sub>4</sub> solid electrolyte with exceptional low activation energy. Journal of Materials Chemistry A, 2014, 2, 10396-10403.	5.2	67
47	Deformation mechanisms in a precipitation-strengthened ferritic superalloy revealed by in situ neutron diffraction studies at elevated temperatures. Acta Materialia, 2015, 83, 137-148.	3.8	64
48	Strength can be controlled by edge dislocations in refractory high-entropy alloys. Nature Communications, 2021, 12, 5474.	5.8	64
49	Exceptionally High Performance Anode Material Based on Lattice Structure Decorated Double Perovskite Sr <sub>2</sub> FeMo <sub>2/3</sub> Mg <sub>1/3</sub> O <sub>6â^'</sub> <i><sub>δ</sub></i> for Solid Oxide Fuel Cells. Advanced Energy Materials, 2018, 8, 1800062.	10.2	62
50	Boosting Nitrogen Activation via Bimetallic Organic Frameworks for Photocatalytic Ammonia Synthesis. ACS Catalysis, 2021, 11, 9986-9995.	5.5	61
51	Low ycle fatigue of 1Cr–18Ni–9Ti stainless steel and related weld metal under axial, torsional and 90° outâ€ofâ€phase loading. Fatigue and Fracture of Engineering Materials and Structures, 2004, 27, 439-448.	1.7	58
52	Temperature-dependent behavior of a polycrystalline NiTi shape memory alloy around the transformation regime. Scripta Materialia, 2013, 68, 571-574.	2.6	55
53	Deformation characteristics of the intermetallic alloy 60NiTi. Intermetallics, 2017, 82, 40-52.	1.8	55
54	A study of suppressed formation of low-conductivity phases in doped Li <sub>7</sub> La <sub>3</sub> Zr <sub>2</sub> O <sub>12</sub> garnets by in situ neutron diffraction. Journal of Materials Chemistry A, 2015, 3, 22868-22876.	5.2	54

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55	Microstructural and micromechanical characterization of IN718 theta shaped specimens built with electron beam melting. Acta Materialia, 2016, 108, 161-175.	3.8	54
56	Twinning-mediated work hardening and texture evolution in CrCoFeMnNi high entropy alloys at cryogenic temperature. Materials and Design, 2017, 131, 419-427.	3.3	54
57	An In-Situ Electrochemical Cell for Neutron Diffraction Studies of Phase Transitions in Small Volume Electrodes of Li-Ion Batteries. Journal of the Electrochemical Society, 2014, 161, A1731-A1741.	1.3	53
58	A study of lattice elasticity from low entropy metals to medium and high entropy alloys. Scripta Materialia, 2015, 101, 32-35.	2.6	51
59	Unraveling structural evolution of LiNi0.5Mn1.5O4 by in situ neutron diffraction. Journal of Materials Chemistry A, 2013, 1, 6908.	5.2	50
60	Deformation behavior of solid-solution-strengthened Mg–9 wt.% Al alloy: In situ neutron diffraction and elastic–viscoplastic self-consistent modeling. Acta Materialia, 2014, 73, 139-148.	3.8	49
61	Identifying the chemical and structural irreversibility in LiNi <sub>0.8</sub> Co <sub>0.15</sub> Al <sub>0.05</sub> O <sub>2</sub> – a model compound for classical layered intercalation. Journal of Materials Chemistry A, 2018, 6, 4189-4198.	5.2	48
62	Elucidating the mobility of H <sup>+</sup> and Li <sup>+</sup> ions in (Li <sub>6.25â^x</sub> H <sub>x</sub> Al <sub>0.25</sub> )La <sub>3</sub> Zr <sub>2</sub> O <sub>12</sub> <i neutron and electron spectroscopy. Energy and Environmental Science, 2019, 12, 945-951.</i 	>v <b>ia</b> s¢i>co	orr <b>ela</b> tive
63	A synchrotron X-ray diffraction study on the phase transformation kinetics and texture evolution of a TRIP steel subjected to torsional loading. Acta Materialia, 2012, 60, 6703-6713.	3.8	47
64	Unraveling cyclic deformation mechanisms of a rolled magnesium alloy using in situ neutron diffraction. Acta Materialia, 2015, 85, 343-353.	3.8	47
65	Intragranular twinning, detwinning, and twinning-like lattice reorientation in magnesium alloys. Acta Materialia, 2016, 121, 15-23.	3.8	46
66	VULCAN: A "hammer―for high-temperature materials research. MRS Bulletin, 2019, 44, 878-885.	1.7	45
67	Elucidating the Limit of Li Insertion into the Spinel Li <sub>4</sub> Ti <sub>5</sub> O <sub>12</sub> ., 2019, 1, 96-102.		45
68	An Air‣table Na <sub>3</sub> SbS <sub>4</sub> Superionic Conductor Prepared by a Rapid and Economic Synthetic Procedure. Angewandte Chemie, 2016, 128, 8693-8697.	1.6	44
69	Revealing the cyclic hardening mechanism of an austenitic stainless steel by real-time in situ neutron diffraction. Scripta Materialia, 2014, 89, 45-48.	2.6	43
70	Probing Multiscale Transport and Inhomogeneity in a Lithium-Ion Pouch Cell Using In Situ Neutron Methods. ACS Energy Letters, 2016, 1, 981-986.	8.8	43
71	Probing Li-Ni Cation Disorder in Li <sub>1â^'<i>x</i></sub> Ni <sub>1+<i>x</i>â^'<i>y</i></sub> Al <sub><i>y</i></sub> O <sub>2</sub> Cathode Materials by Neutron Diffraction. Journal of the Electrochemical Society, 2012, 159, A924-A928.	1.3	42
72	Novel Chemically Stable Ba <sub>3</sub> Ca <sub>1.18</sub> Nb <sub>1.82–<i>x</i></sub> Y <sub><i>x</i></sub> O <sub>9â^îî</sub> Proton Conductor: Improved Proton Conductivity through Tailored Cation Ordering. Chemistry of Materials, 2014, 26, 2021-2029.	3.2	42

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73	Deformation mechanisms and work-hardening behavior of transformation-induced plasticity high entropy alloys by <i>in -situ</i> neutron diffraction. Materials Research Letters, 2018, 6, 620-626.	4.1	41
74	From embryos to precipitates: A study of nucleation and growth in a multicomponent ferritic steel. Physical Review B, 2011, 84, .	1.1	40
75	Deformation dynamics study of a wrought magnesium alloy by real-time in situ neutron diffraction. Scripta Materialia, 2013, 69, 358-361.	2.6	39
76	Releasing Metal Catalysts via Phase Transition: (NiO) <sub>0.05</sub> -(SrTi <sub>0.8</sub> Nb <sub>0.2</sub> O <sub>3</sub> ) <sub>0.95</sub> as a Redox Stable Anode Material for Solid Oxide Fuel Cells. ACS Applied Materials & Interfaces, 2014, 6, 19990-19996.	4.0	39
77	Enhancing the Ion Transport in LiMn <sub>1.5</sub> Ni <sub>0.5</sub> O <sub>4</sub> by Altering the Particle Wulff Shape via Anisotropic Surface Segregation. ACS Applied Materials & Interfaces, 2017, 9, 36745-36754.	4.0	39
78	Simultaneous Operando Measurements of the Local Temperature, State of Charge, and Strain inside a Commercial Lithium-Ion Battery Pouch Cell. Journal of the Electrochemical Society, 2018, 165, A1578-A1585.	1.3	39
79	Multi-stepwise charge transfer <i>via</i> MOF@MOF/TiO <sub>2</sub> dual-heterojunction photocatalysts towards hydrogen evolution. Journal of Materials Chemistry A, 2022, 10, 9717-9725.	5.2	37
80	First Results from the VULCAN Diffractometer at the SNS. Materials Science Forum, 0, 652, 105-110.	0.3	36
81	Kinetic characteristics up to 4.8 V of layered LiNi1/3Co1/3Mn1/3O2 cathode materials for high voltage lithium-ion batteries. Electrochimica Acta, 2017, 227, 152-161.	2.6	36
82	A study on fatigue crack growth behavior subjected to a single tensile overload: Part II. Transfer of stress concentration and its role in overload-induced transient crack growth. Acta Materialia, 2011, 59, 495-502.	3.8	35
83	Event-based processing of neutron scattering data at the Spallation Neutron Source. Journal of Applied Crystallography, 2018, 51, 616-629.	1.9	35
84	Phase-specific deformation behavior of a relatively tough NiAl–Cr(Mo) lamellar composite. Scripta Materialia, 2014, 84-85, 59-62.	2.6	34
85	Crystallographic orientation and spatially resolved damage in a dispersion-hardened Al alloy. Acta Materialia, 2020, 193, 138-150.	3.8	33
86	Determination of γ/γ′ Lattice Misfit in Ni-Based Single-Crystal Superalloys at High Temperatures by Neutron Diffraction. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 740-751.	1.1	32
87	Visualizing the Structural Evolution of LSM/xYSZ Composite Cathodes for SOFC by in-situ Neutron Diffraction. Scientific Reports, 2014, 4, 5179.	1.6	31
88	Understanding low-cycle fatigue life improvement mechanisms in a pre-twinned magnesium alloy. Journal of Alloys and Compounds, 2016, 656, 539-550.	2.8	31
89	Characterization of Crystallographic Structures Using Bragg-Edge Neutron Imaging at the Spallation Neutron Source. Journal of Imaging, 2017, 3, 65.	1.7	31
90	Unusual thermal stability of nano-structured ferritic alloys. Journal of Alloys and Compounds, 2012, 529, 96-101.	2.8	30

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91	Structural modulations and magnetic properties of off-stoichiometric Ni-Mn-Ga magnetic shape memory alloys. Physical Review B, 2012, 85, .	1.1	30
92	In-situ neutron diffraction investigation on twinning/detwinning activities during tension-compression load reversal in a twinning induced plasticity steel. Scripta Materialia, 2018, 150, 168-172.	2.6	30
93	Investigation of deformation twinning under complex stress states in a rolled magnesium alloy. Journal of Alloys and Compounds, 2016, 683, 619-633.	2.8	27
94	In-situ neutron diffraction study on the tension-compression fatigue behavior of a twinning induced plasticity steel. Scripta Materialia, 2017, 137, 83-87.	2.6	27
95	Element Effects on High-Entropy Alloy Vacancy and Heterogeneous Lattice Distortion Subjected to Quasi-equilibrium Heating. Scientific Reports, 2019, 9, 14788.	1.6	27
96	Tuning Both Anionic and Cationic Redox Chemistry of Li-Rich Li <sub>1.2</sub> Mn <sub>0.6</sub> Ni <sub>0.2</sub> O <sub>2</sub> via a "Three-in-One―Strategy. Chemistry of Materials, 2020, 32, 9404-9414.	3.2	27
97	Synthesis and catalytic performance of polydopamine supported metal nanoparticles. Scientific Reports, 2020, 10, 10416.	1.6	27
98	Correlation of anisotropy and directional conduction in $\hat{I}^2$ -Li3PS4 fast Li+ conductor. Applied Physics Letters, 2015, 107, .	1.5	26
99	Phase-specific deformation behavior of a NiAl–Cr(Mo) lamellar composite under thermal and mechanical loads. Journal of Alloys and Compounds, 2016, 656, 481-490.	2.8	25
100	Unravelling thermal history during additive manufacturing of martensitic stainless steel. Journal of Alloys and Compounds, 2021, 857, 157555.	2.8	25
101	Plastic and low-cost axial zero thermal expansion alloy by a natural dual-phase composite. Nature Communications, 2021, 12, 4701.	5.8	24
102	Hardening steels by the generation of transient phase using additive manufacturing. Intermetallics, 2019, 109, 60-67.	1.8	23
103	In situ neutron diffraction studies of a commercial, soft lead zirconate titanate ceramic: response to electric fields andÂmechanical stress. Applied Physics A: Materials Science and Processing, 2010, 99, 557-564.	1.1	22
104	Electrostatic levitation facility optimized for neutron diffraction studies of high temperature liquids at a spallation neutron source. Review of Scientific Instruments, 2016, 87, 013904.	0.6	22
105	Novel Ordered Rocksalt-Type Lithium-Rich Li <sub>2</sub> Ru <sub>1–<i>x</i></sub> Ni <sub><i>x</i></sub> O <sub>3â<sup>-</sup>î´</sub> (0.3 ≤i>x â‰ฃ.5 Cathode Material with Tunable Anionic Redox Potential. ACS Applied Energy Materials, 2019, 2, 5933-5944.	) <sub>2.5</sub>	22
106	Effect of nickel on the kinematic stability of retained austenite in carburized bearing steels – In-situ neutron diffraction and crystal plasticity modeling of uniaxial tension tests in AISI 8620, 4320 and 3310 steels. International Journal of Plasticity, 2020, 131, 102748.	4.1	22
107	The pressure-assisted master sintering surface. Journal of Materials Science, 2002, 37, 4555-4559.	1.7	21
108	Latticeâ€Cell Orientation Disorder in Complex Spinel Oxides. Advanced Energy Materials, 2017, 7, 1601950.	10.2	21

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109	In situ investigation of stress-induced martensitic transformation in granular shape memory ceramic packings. Acta Materialia, 2019, 168, 362-375.	3.8	21
110	Lean duplex TRIP steel: Role of ferrite in the texture development, plastic anisotropy, martensitic transformation kinetics, and stress partitioning. Materialia, 2021, 15, 100952.	1.3	21
111	In situ neutron diffraction measurement of transient temperature and stress fields in a thin plate. Applied Physics Letters, 2006, 88, 261903.	1.5	20
112	The migration mechanism of transition metal ions in LiNi <sub>0.5</sub> Mn <sub>1.5</sub> O <sub>4</sub> . Journal of Materials Chemistry A, 2015, 3, 13031-13038.	5.2	20
113	Revealing the Structural Stability and Na-Ion Mobility of 3D Superionic Conductor Na <sub>3</sub> SbS <sub>4</sub> at Extremely Low Temperatures. ACS Applied Energy Materials, 2018, 1, 7028-7034.	2.5	20
114	High performance and low thermal expansion in Er-Fe-V-Mo dual-phase alloys. Acta Materialia, 2020, 198, 271-280.	3.8	20
115	Temperature and stress dependent twinning behavior in a fully austenitic medium-Mn steel. Acta Materialia, 2022, 231, 117864.	3.8	20
116	Annealing effects on the structural and magnetic properties of off-stoichiometric Fe-Mn-Ga ferromagnetic shape memory alloys. Materials and Design, 2016, 104, 327-332.	3.3	19
117	A study of stress-induced phase transformation and micromechanical behavior of CuZr-based alloy by in-situ neutron diffraction. Journal of Alloys and Compounds, 2017, 696, 1096-1104.	2.8	19
118	Probing the electrolyte infiltration behaviour of activated carbon supercapacitor electrodes by in situ neutron scattering using aqueous NaCl as electrolyte. Carbon, 2018, 136, 139-142.	5.4	19
119	Stabilizing the Anionic Redox in 4.6 VÂLiCoO <sub>2</sub> Cathode through Adjusting Oxygen Magnetic Moment. Advanced Functional Materials, 2022, 32, .	7.8	19
120	A Combined Variable-Temperature Neutron Diffraction and Thermogravimetric Analysis Study on a Promising Oxygen Electrode, SrCo <sub>0.9</sub> Nb <sub>0.1</sub> O <sub>3â~Î′</sub> , for Reversible Solid Oxide Fuel Cells. ACS Applied Materials & Interfaces, 2017, 9, 34855-34864.	4.0	18
121	Martensitic transformation in a B2-containing CuZr-based BMG composite revealed by in situ neutron diffraction. Journal of Alloys and Compounds, 2017, 723, 714-721.	2.8	18
122	In-situ neutron diffraction and crystal plasticity finite element modeling to study the kinematic stability of retained austenite in bearing steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 711, 579-587.	2.6	18
123	An in situ neutron diffraction study of plastic deformation in a Cu46.5Zr46.5Al7 bulk metallic glass composite. Scripta Materialia, 2018, 153, 118-121.	2.6	18
124	Multiscale mechanical fatigue damage of stainless steel investigated by neutron diffraction and X-ray microdiffraction. Acta Materialia, 2019, 165, 336-345.	3.8	18
125	Investigating the deformation mechanisms of a highly metastable high entropy alloy using in-situ neutron diffraction. Materials Today Communications, 2020, 23, 100858.	0.9	18
126	Direct evidence of the stacking fault-mediated strain hardening phenomenon. Applied Physics Letters, 2021, 119, .	1.5	18

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127	Transition from the twinning induced plasticity to the Î <sup>3</sup> -ε transformation induced plasticity in a high manganese steel. Acta Materialia, 2018, 161, 273-284.	3.8	17
128	Correlating work hardening with co-activation of stacking fault strengthening and transformation in a high entropy alloy using in-situ neutron diffraction. Scientific Reports, 2020, 10, 22263.	1.6	17
129	α-Phase transformation kinetics of U – 8Âwt% Mo established by in situ neutron diffraction. Journal of Nuclear Materials, 2016, 477, 149-156.	1.3	16
130	NaAlTi3O8, A Novel Anode Material for Sodium Ion Battery. Scientific Reports, 2017, 7, 162.	1.6	16
131	Mechanical properties and microstructure changes of proton exchange membrane under immersed conditions. Polymer Engineering and Science, 2014, 54, 2215-2221.	1.5	15
132	Extracting grain-orientation-dependent data from <i>in situ</i> time-of-flight neutron diffraction. I. Inverse pole figures. Journal of Applied Crystallography, 2014, 47, 2019-2029.	1.9	15
133	Real-Time In Situ Neutron Diffraction Investigation of Phase-Specific Load Sharing in a Cold-Rolled TRIP Sheet Steel. Jom, 2018, 70, 1576-1586.	0.9	15
134	Microstructure and tensile behavior of powder metallurgy FeCrAl accident tolerant fuel cladding. Journal of Nuclear Materials, 2022, 560, 153524.	1.3	15
135	Texture Evolution and Phase Transformation in Titanium Investigated by In-Situ Neutron Diffraction. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 1444-1448.	1.1	14
136	On plastic anisotropy and deformation history-driven anelasticity of an extruded magnesium alloy. Scripta Materialia, 2020, 176, 36-41.	2.6	14
137	Microstructure, Hardness, and Residual Stress of the Dissimilar Metal Weldments of SA508-309L/308L-304L. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 1927-1938.	1.1	14
138	A Highâ€Temperature Neutron Diffraction Study of Nb <sub>2</sub> AlC and TiNbAlC. Journal of the American Ceramic Society, 2015, 98, 940-947.	1.9	13
139	In-situ TOF neutron diffraction studies of cyclic softening in superelasticity of a NiFeGaCo shape memory alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 680, 324-328.	2.6	13
140	In situ neutron diffraction study of twin reorientation and pseudoplastic strain in Ni–Mn–Ga single crystals. Scripta Materialia, 2011, 65, 540-543.	2.6	12
141	Characterization and analyses of degradation and recovery of LaNi4.78Sn0.22 hydrides following thermal aging. Journal of Alloys and Compounds, 2013, 580, S207-S210.	2.8	12
142	Grain orientation dependence of lattice strains and intergranular damage rates in polycrystals under cyclic loading. Scripta Materialia, 2013, 68, 265-268.	2.6	12
143	Grain Orientation Dependence of the Residual Lattice Strain in a Cold Rolled Interstitialâ€Free Steel. Steel Research International, 2018, 89, 1700408.	1.0	12
144	Effects of Zr addition on lattice strains and electronic structures of NbTaTiV high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 831, 142293.	2.6	12

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145	A Seawaterâ€Corrosionâ€Resistant and Isotropic Zero Thermal Expansion (Zr,Ta)(Fe,Co) <sub>2</sub> Alloy. Advanced Materials, 2022, 34, .	11.1	12
146	<i>In-situ</i> neutron diffraction of LaCoO3 perovskite under uniaxial compression. II. Elastic properties. Journal of Applied Physics, 2014, 116, .	1.1	11
147	Effect of external stress on deuteride (hydride) precipitation in Zircaloy-4 using in situ neutron diffraction. Journal of Nuclear Materials, 2017, 487, 396-405.	1.3	11
148	Neutron transmission simulation of texture in polycrystalline materials. Nuclear Instruments & Methods in Physics Research B, 2019, 459, 166-178.	0.6	11
149	Bioinspired Construction of g-C <sub>3</sub> N <sub>4</sub> Nanolayers on a Carbonized Polydopamine Nanosphere Surface with Excellent Photocatalytic Performance. Industrial & Engineering Chemistry Research, 2020, 59, 12389-12398.	1.8	11
150	In situ monitoring of dislocation, twinning, and detwinning modes in an extruded magnesium alloy under cyclic loading conditions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 806, 140860.	2.6	11
151	On the torsional and coupled torsion-tension/compression behavior of magnesium alloy solid rod: A crystal plasticity evaluation. International Journal of Plasticity, 2022, 151, 103213.	4.1	11
152	Durability of (Pr0.7Sr0.3)MnO3±Î′/8YSZ composite cathodes for solid oxide fuel cells. Journal of Power Sources, 2006, 158, 254-262.	4.0	10
153	Changes in lattice-strain profiles around a fatigue crack through the retardation period after overloading. Physica B: Condensed Matter, 2006, 385-386, 633-635.	1.3	10
154	Evolution of residual-strain distribution through an overload-induced retardation period during fatigue-crack growth. Journal of Applied Physics, 2010, 107, 023517.	1.1	10
155	Radial distribution of martensitic phase transformation in a metastable stainless steel under torsional deformation: A synchrotron X-ray diffraction study. Materials Letters, 2011, 65, 3013-3015.	1.3	10
156	In situ neutron diffraction analysis of grain structure during friction stir processing of an aluminum alloy. Materials Letters, 2012, 85, 29-32.	1.3	10
157	Strain incompatibility and residual strains in ferroelectric single crystals. Scientific Reports, 2012, 2, 929.	1.6	10
158	<i>In-situ</i> neutron diffraction of LaCoO3 perovskite under uniaxial compression. I. Crystal structure analysis and texture development. Journal of Applied Physics, 2014, 116, .	1.1	10
159	Applying neutron transmission physics and 3D statistical full-field model to understand 2D Bragg-edge imaging. Journal of Applied Physics, 2018, 123, .	1.1	10
160	Tracing Phase Transformation and Lattice Evolution in a TRIP Sheet Steel under High-Temperature Annealing by Real-Time In Situ Neutron Diffraction. Crystals, 2018, 8, 360.	1.0	10
161	Micromechanical and microstructure analysis of strain-induced phenomena in ultrasonic additively-manufactured Al-6061 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 770, 138533.	2.6	10
162	On-Surface Bottom-Up Construction of COF Nanoshells towards Photocatalytic H <sub>2</sub> Production. Research, 2021, 2021, 9798564.	2.8	10

#	Article	IF	CITATIONS
163	Crystallographic orientation and spatially resolved damage for polycrystalline deformation of a high manganese steel. Acta Materialia, 2022, 226, 117628.	3.8	10
164	Modular assembly of electron transfer pathways in bimetallic MOFs for photocatalytic ammonia synthesis. Catalysis Science and Technology, 2022, 12, 2015-2022.	2.1	10
165	Tailored deformation behavior of 304L stainless steel through control of the crystallographic texture with laser-powder bed fusion. Materials and Design, 2022, 219, 110789.	3.3	10
166	Design and implementation of a multiaxial loading capability during heating on an engineering neutron diffractometer. Review of Scientific Instruments, 2014, 85, 103901.	0.6	9
167	Stress-induced charge-ordering process in LiMn2O4. Materials Research Letters, 2017, 5, 89-94.	4.1	9
168	PIND: High spatial resolution by pinhole neutron diffraction. Applied Physics Letters, 2018, 112, .	1.5	9
169	Influence of Volume Fraction of Long-Period Stacking Ordered Structure Phase on the Deformation Processes during Cyclic Deformation of Mg-Y-Zn Alloys. Crystals, 2021, 11, 11.	1.0	9
170	Elastic behavior of binary and ternary refractory multi-principal-element alloys. Materials and Design, 2022, 219, 110820.	3.3	9
171	Neutron Diffraction Measurement of Residual Stresses in Friction Stir Processed Nanocomposite Surface Layer. Advanced Engineering Materials, 2009, 11, 650-653.	1.6	8
172	In situ neutron scattering study of nanoscale phase evolution in PbTe-PbS thermoelectric material. Applied Physics Letters, 2016, 109, 081903.	1.5	8
173	Deformation mode transition of Mg 3Li alloy: An in situ neutron diffraction study. Journal of Alloys and Compounds, 2016, 685, 331-336.	2.8	8
174	Discovery of a reversible redox-induced order-disorder transition in a 10-component compositionally complex ceramic. Scripta Materialia, 2022, 215, 114699.	2.6	8
175	Comparison of Methodologies for Determination of Fracture Strength of 8mol% Yttria-Stabilized Zirconia Electrolyte Materials. Journal of Fuel Cell Science and Technology, 2005, 2, 99-103.	0.8	7
176	In situ neutron diffraction study on tensile deformation behavior of carbon-strengthened CoCrFeMnNi high-entropy alloys at room and elevated temperatures. Journal of Materials Research, 2018, 33, 3192-3203.	1.2	7
177	Investigating the Difference in Mechanical Stability of Retained Austenite in Bainitic and Martensitic High-Carbon Bearing Steels using in situ Neutron Diffraction and Crystal Plasticity Modeling. Metals, 2019, 9, 482.	1.0	7
178	Recognition of V3+/V4+/V5+ Multielectron Reactions in Na3V(PO4)2: A Potential High Energy Density Cathode for Sodium-Ion Batteries. Molecules, 2020, 25, 1000.	1.7	7
179	Viscoplastic lattice strain during repeated relaxation of age-hardened Al alloy. Mechanics of Materials, 2021, 158, 103899.	1.7	7
180	Monitoring residual strain relaxation and preferred grain orientation of additively manufactured Inconel 625 by in-situ neutron imaging. Additive Manufacturing, 2021, 46, 102130.	1.7	7

#	Article	IF	CITATIONS
181	Mapping of Texture and Phase Fractions in Heterogeneous Stress States during Multiaxial Loading of Biomedical Superelastic NiTi. Advanced Materials, 2021, 33, e2005092.	11.1	7
182	Operando measurement of lattice strain in internal combustion engine components by neutron diffraction. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 33061-33071.	3.3	7
183	Feasibility of Thermal Strain Measurements during Quasi-Steady State Using Neutron Diffraction. Materials Science Forum, 2006, 524-525, 387-392.	0.3	6
184	NRSF2 load frame: design, control, and testing. Journal of Neutron Research, 2007, 15, 207-213.	0.4	6
185	Crystal Structure and Transport Properties of Oxygen-Deficient Perovskite Sr <sub>0.9</sub> Y <sub>0.1</sub> CoO <sub>3â ´l´</sub> . ACS Applied Energy Materials, 2018, 1, 822-832.	2.5	6
186	Two-dimensional zero thermal expansion in low-cost MnxFe5â^'xSi3 alloys via integrating crystallographic texture and magneto-volume effect. Science China Materials, 2022, 65, 1912-1919.	3.5	6
187	A Multiphysics Modeling Study of (Pr0.7Sr0.3)MnO3±δâ^•8mol% Yttria-Stabilized Zirconia Composite Cathodes for Solid Oxide Fuel Cells. Journal of Fuel Cell Science and Technology, 2005, 2, 45-51.	0.8	5
188	Mechanical behavior of Fe75Mo5P10C7.5B2.5 bulk-metallic glass under torsional loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 7801-7807.	2.6	5
189	Understanding Structure–Activity Relationships in Sr <sub>1–<i>x</i></sub> Y <sub><i>x</i></sub> CoO <sub>3â^î^</sub> through in Situ Neutron Diffraction and Electrochemical Measurements. ACS Applied Materials & Interfaces, 2018, 10, 35984-35993.	4.0	5
190	Bending Behavior of a Wrought Magnesium Alloy Investigated by the In Situ Pinhole Neutron Diffraction Method. Crystals, 2018, 8, 348.	1.0	5
191	Size effect in stainless steel thin wires under tension. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 790, 139686.	2.6	5
192	Mechanics of composite materials in fuel cell systems. Mechanics of Composite Materials, 2005, 41, 1-8.	0.9	4
193	A portable hydro-thermo-mechanical loading cell forin situsmall angle neutron scattering studies of proton exchange membranes. Review of Scientific Instruments, 2013, 84, 105115.	0.6	4
194	Measurement of Interface Thermal Resistance With Neutron Diffraction. Journal of Heat Transfer, 2014, 136, .	1.2	4
195	In Situ Neutron Scattering Study of Nanostructured PbTe-PbS Bulk Thermoelectric Material. Journal of Electronic Materials, 2017, 46, 2604-2610.	1.0	4
196	In-situ Neutron Diffraction Analysis of Crystal Plasticity of Retained Austenite in Bearing Steel. Procedia Engineering, 2017, 207, 1958-1963.	1.2	4
197	RHEGAL: Resistive heating gas enclosure loadframe for in situ neutron scattering. Review of Scientific Instruments, 2018, 89, 092901.	0.6	4
198	Residual Stress Distribution in a Hydroformed Advanced High Strength Steel Component: Neutron Diffraction Measurements and Finite Element Simulations. , 0, , .		4

#	Article	IF	CITATIONS
199	The anomalous staircase-like magnetization behavior and giant magnetocaloric effect in a Fe–Mn-Ga magnetic shape memory alloy. Intermetallics, 2020, 127, 106975.	1.8	4
200	In-situ neutron diffraction investigation of two-stage martensitic transformation in a 13%Mn steel with serrated deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 840, 142955.	2.6	4
201	MENUS—Materials engineering by neutron scattering. Review of Scientific Instruments, 2022, 93, 053911.	0.6	4
202	In-situ neutron diffraction study of phase stress evolutions inÂaÂNi-based porous anode solid oxide fuel cells under uniaxial load. Applied Physics A: Materials Science and Processing, 2010, 99, 579-584.	1.1	3
203	Polarized neutron diffraction at a spallation source for magnetic studies. Journal of Applied Crystallography, 2012, 45, 1024-1029.	1.9	3
204	Distinct Recrystallization Pathways in a Cold-Rolled Al-2%Mg Alloy Evidenced by In-Situ Neutron Diffraction. Quantum Beam Science, 2018, 2, 17.	0.6	3
205	Time and frequency dependent mechanical properties of LaCoO3-based perovskites: Neutron diffraction and domain mobility. Journal of Applied Physics, 2018, 124, .	1.1	3
206	A high-pressure flow through test vessel for neutron imaging and neutron diffraction-based strain measurement of geological materials. Review of Scientific Instruments, 2020, 91, 084502.	0.6	3
207	In Situ Neutron Diffraction Study of Phase Transformation of High Mn Steel with Different Carbon Content. Crystals, 2020, 10, 101.	1.0	3
208	Unraveling transition-metal-mediated stability of spinel oxide via in situ neutron scattering. Journal of Energy Chemistry, 2022, 68, 60-70.	7.1	3
209	Transient Phase-Driven Cyclic Deformation in Additively Manufactured 15-5 PH Steel. Materials, 2022, 15, 777.	1.3	3
210	Anomalous high-temperature quasi-linear superelasticity of Ni-Fe-Ga-Co shape memory alloy. Journal of Alloys and Compounds, 2022, 909, 164808.	2.8	3
211	Time-of-Flight Neutron Diffraction (TOF-ND) Analyses of the Composition and Minting of Ancient Judaean "Biblical―Coins. Journal of Analytical Methods in Chemistry, 2019, 2019, 1-18.	0.7	2
212	Phase Stress Partition in Gray Cast Iron Using In Situ Neutron Diffraction Measurements. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 5029-5035.	1.1	2
213	Residual Stress Analysis for Additive Manufactured Large Automobile Parts by Using Neutron and Simulation. , 0, , .		2
214	Micromechanical Behavior of Solid-Solution-Strengthened Mg-1wt.%Al Alloy Investigated by <i>In Situ</i> Neutron Diffraction. Materials Science Forum, 2014, 777, 130-135.	0.3	1
215	High-resolution 2-D Bragg diffraction reveal heterogeneous domain transformation behavior in a bulk relaxor ferroelectric. Applied Physics Letters, 2016, 109, 092907.	1.5	1
216	Investigating Mechano-Electrochemical Coupling Phenomenon in Lithium-Ion Pouch Cells Using In-situ Neutron Diffraction. ECS Transactions, 2021, 104, 75-85.	0.3	1

#	Article	IF	CITATIONS
217	High Entropy Alloys: Advanced Synchrotron X-Ray and Neutron Scattering Studies. , 2022, , 381-392.		1
218	Fiber Push Out Testing Before and After Exposure: Results for an MI SiC/SiC Composite. Ceramic Engineering and Science Proceedings, 0, , 65-74.	0.1	1
219	Damage Precursor Assessment in Aerospace Structural Materials. , 2018, , .		1
220	Magnetic ordering suppressed phase transformation of a TRIP-HEA during thermal cycling. Applied Physics Letters, 2021, 119, 171906.	1.5	1
221	Residual Stress Evaluation within a Crimped Splice Connector Assembly. , 2006, , 391.		0
222	Effective Lifetime Estimate of Crimped Powerline Splice Connector Operated at High Temperature. , 2008, , .		0
223	Analysis of Retained Austenite and Residual Stress Distribution in Ni-Cr Type High Strength Steel Weld by Neutron Diffraction. Materials Science Forum, 0, 783-786, 2115-2119.	0.3	0
224	Energy Storage: Lattice ell Orientation Disorder in Complex Spinel Oxides (Adv. Energy Mater. 4/2017). Advanced Energy Materials, 2017, 7, .	10.2	0
225	Creep properties of advanced austenitic steel 709 determined through short experiments under in-situ neutron diffraction followed by TEM characterization. Materials Characterization, 2021, 182, 111519.	1.9	0
226	Thermal annealing effects on structural and magnetic properties of Fe46Mn26Ga28 ferromagnetic shape memory alloys. , 2016, , .		0