

Ke An

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

215
papers

7,310
citations

44
h-index

78
g-index

239
ext. papers

9,680
ext. citations

7.6
avg, IF

6.13
L-index

| # | Paper | IF | Citations |
|-----|---|------|-----------|
| 215 | Crystallographic orientation and spatially resolved damage for polycrystalline deformation of a high manganese steel. <i>Acta Materialia</i> , 2022 , 226, 117628 | 8.4 | 2 |
| 214 | On the torsional and coupled torsion-tension/compression behavior of magnesium alloy solid rod: A crystal plasticity evaluation. <i>International Journal of Plasticity</i> , 2022 , 151, 103213 | 7.6 | 1 |
| 213 | Effects of Zr addition on lattice strains and electronic structures of NbTaTiV high-entropy alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022 , 831, 142293 | 5.3 | 0 |
| 212 | Microstructure and Tensile Behavior of Powder Metallurgy FeCrAl Accident Tolerant Fuel Cladding. <i>Journal of Nuclear Materials</i> , 2022 , 153524 | 3.3 | 1 |
| 211 | High Entropy Alloys: Advanced Synchrotron X-Ray and Neutron Scattering Studies 2022 , 381-392 | | 1 |
| 210 | Improving the oxygen redox reversibility of Li-rich battery cathode materials via Coulombic repulsive interactions strategy. <i>Nature Communications</i> , 2022 , 13, 1123 | 17.4 | 9 |
| 209 | In-situ neutron diffraction investigation of two-stage martensitic transformation in a 13%Mn steel with serrated deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022 , 840, 142955 | 5.3 | 1 |
| 208 | Temperature and stress dependent twinning behavior in a fully austenitic medium-Mn steel. <i>Acta Materialia</i> , 2022 , 231, 117864 | 8.4 | 1 |
| 207 | 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 |
| 206 | Anomalous high-temperature quasi-linear superelasticity of Ni-Fe-Ga-Co shape memory alloy. <i>Journal of Alloys and Compounds</i> , 2022 , 909, 164808 | 5.7 | 0 |
| 205 | MENU Materials engineering by neutron scattering. <i>Review of Scientific Instruments</i> , 2022 , 93, 053911 | 1.7 | 0 |
| 204 | Tailored deformation behavior of 304L stainless steel through control of the crystallographic texture with laser-powder bed fusion. <i>Materials and Design</i> , 2022 , 219, 110789 | 8.1 | 0 |
| 203 | Unraveling transition-metal-mediated stability of spinel oxide via in situ neutron scattering. <i>Journal of Energy Chemistry</i> , 2021 , 68, 60-60 | 12 | 0 |
| 202 | Influence of Volume Fraction of Long-Period Stacking Ordered Structure Phase on the Deformation Processes during Cyclic Deformation of Mg-Y-Zn Alloys. <i>Crystals</i> , 2021 , 11, 11 | 2.3 | 3 |
| 201 | Creep properties of advanced austenitic steel 709 determined through short experiments under in-situ neutron diffraction followed by TEM characterization. <i>Materials Characterization</i> , 2021 , 182, 111519 | 3.9 | 3 |
| 200 | Magnetic ordering suppressed phase transformation of a TRIP-HEA during thermal cycling. <i>Applied Physics Letters</i> , 2021 , 119, 171906 | 3.4 | 0 |
| 199 | Superior High-Temperature Strength in a Supersaturated Refractory High-Entropy Alloy. <i>Advanced Materials</i> , 2021 , 33, e2102401 | 24 | 7 |

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| 198 | Design and Optimization of the Direct Recycling of Spent Li-Ion Battery Cathode Materials. <i>ACS Sustainable Chemistry and Engineering</i> , 2021 , 9, 4543-4553 | 8.3 | 9 |
| 197 | In situ monitoring of dislocation, twinning, and detwinning modes in an extruded magnesium alloy under cyclic loading conditions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 806, 140860 | 5.3 | 5 |
| 196 | Enhancing fatigue life by ductile-transformable multicomponent B2 precipitates in a high-entropy alloy. <i>Nature Communications</i> , 2021 , 12, 3588 | 17.4 | 9 |
| 195 | Bifunctional nanoprecipitates strengthen and ductilize a medium-entropy alloy. <i>Nature</i> , 2021 , 595, 245-249 | 36.4 | 32 |
| 194 | High-throughput design of high-performance lightweight high-entropy alloys. <i>Nature Communications</i> , 2021 , 12, 4329 | 17.4 | 25 |
| 193 | Viscoplastic lattice strain during repeated relaxation of age-hardened Al alloy. <i>Mechanics of Materials</i> , 2021 , 158, 103899 | 3.3 | 3 |
| 192 | Unravelling thermal history during additive manufacturing of martensitic stainless steel. <i>Journal of Alloys and Compounds</i> , 2021 , 857, 157555 | 5.7 | 7 |
| 191 | Lean duplex TRIP steel: Role of ferrite in the texture development, plastic anisotropy, martensitic transformation kinetics, and stress partitioning. <i>Materialia</i> , 2021 , 15, 100952 | 3.2 | 10 |
| 190 | Microstructure, Hardness, and Residual Stress of the Dissimilar Metal Weldments of SA508-309L/308L-304L. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021 , 52, 1927-1938 | 2.3 | 5 |
| 189 | Boosting Nitrogen Activation via Bimetallic Organic Frameworks for Photocatalytic Ammonia Synthesis. <i>ACS Catalysis</i> , 2021 , 11, 9986-9995 | 13.1 | 14 |
| 188 | Direct evidence of the stacking fault-mediated strain hardening phenomenon. <i>Applied Physics Letters</i> , 2021 , 119, 081906 | 3.4 | 2 |
| 187 | On-Surface Bottom-Up Construction of COF Nanoshells towards Photocatalytic H ₂ Production. <i>Research</i> , 2021 , 2021, 9798564 | 7.8 | 2 |
| 186 | Plastic and low-cost axial zero thermal expansion alloy by a natural dual-phase composite. <i>Nature Communications</i> , 2021 , 12, 4701 | 17.4 | 4 |
| 185 | Strength can be controlled by edge dislocations in refractory high-entropy alloys. <i>Nature Communications</i> , 2021 , 12, 5474 | 17.4 | 7 |
| 184 | Gradient cell-structured high-entropy alloy with exceptional strength and ductility. <i>Science</i> , 2021 , 374, 984-989 | 33.3 | 49 |
| 183 | Monitoring residual strain relaxation and preferred grain orientation of additively manufactured Inconel 625 by in-situ neutron imaging. <i>Additive Manufacturing</i> , 2021 , 46, 102130 | 6.1 | 1 |
| 182 | Mapping of Texture and Phase Fractions in Heterogeneous Stress States during Multiaxial Loading of Biomedical Superelastic NiTi. <i>Advanced Materials</i> , 2021 , 33, e2005092 | 24 | 3 |
| 181 | Bioinspired Construction of g-C ₃ N ₄ Nanolayers on a Carbonized Polydopamine Nanosphere Surface with Excellent Photocatalytic Performance. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 12389-12398 | 3.9 | 7 |

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| 180 | Size effect in stainless steel thin wires under tension. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 790, 139686 | 5.3 | 3 |
| 179 | In Situ Neutron Diffraction Study of Phase Transformation of High Mn Steel with Different Carbon Content. <i>Crystals</i> , 2020 , 10, 101 | 2.3 | 2 |
| 178 | In situ construction of hydrazone-linked COF-based core-shell hetero-frameworks for enhanced photocatalytic hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 7724-7732 | 13 | 55 |
| 177 | The effect of oxygen vacancy and spinel phase integration on both anionic and cationic redox in Li-rich cathode materials. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 7733-7745 | 13 | 47 |
| 176 | Synthesis and catalytic performance of polydopamine supported metal nanoparticles. <i>Scientific Reports</i> , 2020 , 10, 10416 | 4.9 | 10 |
| 175 | Recognition of V/V/V Multielectron Reactions in NaV(PO): A Potential High Energy Density Cathode for Sodium-Ion Batteries. <i>Molecules</i> , 2020 , 25, | 4.8 | 3 |
| 174 | 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. <i>International Journal of Plasticity</i> , 2020 , 131, 102748 | 7.6 | 10 |
| 173 | Operando measurement of lattice strain in internal combustion engine components by neutron diffraction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 33061-33071 | 11.5 | 0 |
| 172 | Investigating the deformation mechanisms of a highly metastable high entropy alloy using in-situ neutron diffraction. <i>Materials Today Communications</i> , 2020 , 23, 100858 | 2.5 | 15 |
| 171 | Efficient Direct Recycling of Lithium-Ion Battery Cathodes by Targeted Healing. <i>Joule</i> , 2020 , 4, 2609-2626 | 7.8 | 62 |
| 170 | The anomalous staircase-like magnetization behavior and giant magnetocaloric effect in a FeMn-Ga magnetic shape memory alloy. <i>Intermetallics</i> , 2020 , 127, 106975 | 3.5 | 2 |
| 169 | Phase Stress Partition in Gray Cast Iron Using In Situ Neutron Diffraction Measurements. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020 , 51, 5029-5035 | 2.3 | 1 |
| 168 | Lattice-Distortion-Enhanced Yield Strength in a Refractory High-Entropy Alloy. <i>Advanced Materials</i> , 2020 , 32, e2004029 | 24 | 40 |
| 167 | Tuning Both Anionic and Cationic Redox Chemistry of Li-Rich Li _{1.2} Mn _{0.6} Ni _{0.2} O ₂ via a Three-in-One Strategy. <i>Chemistry of Materials</i> , 2020 , 32, 9404-9414 | 9.6 | 10 |
| 166 | High performance and low thermal expansion in Er-Fe-V-Mo dual-phase alloys. <i>Acta Materialia</i> , 2020 , 198, 271-280 | 8.4 | 8 |
| 165 | A disordered rock salt anode for fast-charging lithium-ion batteries. <i>Nature</i> , 2020 , 585, 63-67 | 50.4 | 137 |
| 164 | Temperature dependence of elastic and plastic deformation behavior of a refractory high-entropy alloy. <i>Science Advances</i> , 2020 , 6, | 14.3 | 39 |
| 163 | A high-pressure flow through test vessel for neutron imaging and neutron diffraction-based strain measurement of geological materials. <i>Review of Scientific Instruments</i> , 2020 , 91, 084502 | 1.7 | 1 |

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| 162 | Correlating work hardening with co-activation of stacking fault strengthening and transformation in a high entropy alloy using in-situ neutron diffraction. <i>Scientific Reports</i> , 2020 , 10, 22263 | 4.9 | 2 |
| 161 | Micromechanical and microstructure analysis of strain-induced phenomena in ultrasonic additively-manufactured Al-6061 alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 770, 138533 | 5.3 | 6 |
| 160 | On plastic anisotropy and deformation history-driven anelasticity of an extruded magnesium alloy. <i>Scripta Materialia</i> , 2020 , 176, 36-41 | 5.6 | 8 |
| 159 | Crystallographic orientation and spatially resolved damage in a dispersion-hardened Al alloy. <i>Acta Materialia</i> , 2020 , 193, 138-150 | 8.4 | 19 |
| 158 | Time-of-Flight Neutron Diffraction (TOF-ND) Analyses of the Composition and Minting of Ancient Judean "Biblical" Coins. <i>Journal of Analytical Methods in Chemistry</i> , 2019 , 2019, 6164058 | 2 | 1 |
| 157 | First-principles and machine learning predictions of elasticity in severely lattice-distorted high-entropy alloys with experimental validation. <i>Acta Materialia</i> , 2019 , 181, 124-138 | 8.4 | 51 |
| 156 | Neutron transmission simulation of texture in polycrystalline materials. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2019 , 459, 166-178 | 1.2 | 5 |
| 155 | Elucidating the Limit of Li Insertion into the Spinel Li ₄ Ti ₅ O ₁₂ 2019 , 1, 96-102 | | 28 |
| 154 | Novel Ordered Rocksalt-Type Lithium-Rich Li ₂ Ru _{1-x} Ni _x O ₃ (0.3 ≤ x ≤ 0.5) Cathode Material with Tunable Anionic Redox Potential. <i>ACS Applied Energy Materials</i> , 2019 , 2, 5933-5944 | 6.1 | 17 |
| 153 | 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. <i>Metals</i> , 2019 , 9, 482 | 2.3 | 5 |
| 152 | Formation, structure and properties of biocompatible TiZrHfNbTa high-entropy alloys. <i>Materials Research Letters</i> , 2019 , 7, 225-231 | 7.4 | 65 |
| 151 | Hardening steels by the generation of transient phase using additive manufacturing. <i>Intermetallics</i> , 2019 , 109, 60-67 | 3.5 | 16 |
| 150 | Mixed-conducting interlayer boosting the electrochemical performance of Ni-rich layered oxide cathode materials for lithium ion batteries. <i>Journal of Power Sources</i> , 2019 , 421, 91-99 | 8.9 | 60 |
| 149 | Transformation-reinforced high-entropy alloys with superior mechanical properties via tailoring stacking fault energy. <i>Journal of Alloys and Compounds</i> , 2019 , 792, 444-455 | 5.7 | 53 |
| 148 | In situ investigation of stress-induced martensitic transformation in granular shape memory ceramic packings. <i>Acta Materialia</i> , 2019 , 168, 362-375 | 8.4 | 14 |
| 147 | Elucidating the mobility of H ⁺ and Li ⁺ ions in (Li _{6.25-x} H _x Al _{0.25})La ₃ Zr ₂ O ₁₂ via correlative neutron and electron spectroscopy. <i>Energy and Environmental Science</i> , 2019 , 12, 945-951 | 35.4 | 35 |
| 146 | Element Effects on High-Entropy Alloy Vacancy and Heterogeneous Lattice Distortion Subjected to Quasi-equilibrium Heating. <i>Scientific Reports</i> , 2019 , 9, 14788 | 4.9 | 16 |
| 145 | VULCAN: A Hammer for high-temperature materials research. <i>MRS Bulletin</i> , 2019 , 44, 878-885 | 3.2 | 23 |

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| 144 | Solving the strength-ductility tradeoff in the medium-entropy NiCoCr alloy via interstitial strengthening of carbon. <i>Intermetallics</i> , 2019 , 106, 77-87 | 3.5 | 44 |
| 143 | Multiscale mechanical fatigue damage of stainless steel investigated by neutron diffraction and X-ray microdiffraction. <i>Acta Materialia</i> , 2019 , 165, 336-345 | 8.4 | 10 |
| 142 | In-situ neutron diffraction investigation on twinning/detwinning activities during tension-compression load reversal in a twinning induced plasticity steel. <i>Scripta Materialia</i> , 2018 , 150, 168-172 | 5.6 | 20 |
| 141 | Applying neutron transmission physics and 3D statistical full-field model to understand 2D Bragg-edge imaging. <i>Journal of Applied Physics</i> , 2018 , 123, 074901 | 2.5 | 8 |
| 140 | Crystal Structure and Transport Properties of Oxygen-Deficient Perovskite Sr _{0.9} Y _{0.1} CoO _{3-δ} <i>ACS Applied Energy Materials</i> , 2018 , 1, 822-832 | 6.1 | 5 |
| 139 | Identifying the chemical and structural irreversibility in LiNi _{0.8} Co _{0.15} Al _{0.05} O ₂ δ model compound for classical layered intercalation. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 4189-4198 | 13 | 41 |
| 138 | Grain Orientation Dependence of the Residual Lattice Strain in a Cold Rolled Interstitial-Free Steel. <i>Steel Research International</i> , 2018 , 89, 1700408 | 1.6 | 10 |
| 137 | Determination of γ/α Lattice Misfit in Ni-Based Single-Crystal Superalloys at High Temperatures by Neutron Diffraction. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 740-751 | 2.3 | 17 |
| 136 | Probing the electrolyte infiltration behaviour of activated carbon supercapacitor electrodes by in situ neutron scattering using aqueous NaCl as electrolyte. <i>Carbon</i> , 2018 , 136, 139-142 | 10.4 | 13 |
| 135 | Exceptionally High Performance Anode Material Based on Lattice Structure Decorated Double Perovskite Sr ₂ FeMo _{2/3} Mg _{1/3} O ₆ δ for Solid Oxide Fuel Cells. <i>Advanced Energy Materials</i> , 2018 , 8, 1800062 | 21.8 | 46 |
| 134 | Event-based processing of neutron scattering data at the Spallation Neutron Source. <i>Journal of Applied Crystallography</i> , 2018 , 51, 616-629 | 3.8 | 21 |
| 133 | Residual Stress Distribution in a Hydroformed Advanced High Strength Steel Component: Neutron Diffraction Measurements and Finite Element Simulations 2018 , | | 1 |
| 132 | Real-Time In Situ Neutron Diffraction Investigation of Phase-Specific Load Sharing in a Cold-Rolled TRIP Sheet Steel. <i>Jom</i> , 2018 , 70, 1576-1586 | 2.1 | 8 |
| 131 | PIND: High spatial resolution by pinhole neutron diffraction. <i>Applied Physics Letters</i> , 2018 , 112, 253501 | 3.4 | 8 |
| 130 | In-situ neutron diffraction and crystal plasticity finite element modeling to study the kinematic stability of retained austenite in bearing steels. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 711, 579-587 | 5.3 | 14 |
| 129 | Distinct Recrystallization Pathways in a Cold-Rolled Al-2%Mg Alloy Evidenced by In-Situ Neutron Diffraction. <i>Quantum Beam Science</i> , 2018 , 2, 17 | 1.6 | 2 |
| 128 | RHEGAL: Resistive heating gas enclosure loadframe for neutron scattering. <i>Review of Scientific Instruments</i> , 2018 , 89, 092901 | 1.7 | 3 |
| 127 | Enhanced strength and ductility in a high-entropy alloy via ordered oxygen complexes. <i>Nature</i> , 2018 , 563, 546-550 | 50.4 | 516 |

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| 126 | Tracing Phase Transformation and Lattice Evolution in a TRIP Sheet Steel under High-Temperature Annealing by Real-Time In Situ Neutron Diffraction. <i>Crystals</i> , 2018 , 8, 360 | 2.3 | 8 |
| 125 | Time and frequency dependent mechanical properties of LaCoO ₃ -based perovskites: Neutron diffraction and domain mobility. <i>Journal of Applied Physics</i> , 2018 , 124, 205104 | 2.5 | 2 |
| 124 | A suite-level review of the neutron powder diffraction instruments at Oak Ridge National Laboratory. <i>Review of Scientific Instruments</i> , 2018 , 89, 092701 | 1.7 | 55 |
| 123 | Deformation mechanisms and work-hardening behavior of transformation-induced plasticity high entropy alloys by in -situ neutron diffraction. <i>Materials Research Letters</i> , 2018 , 6, 620-626 | 7.4 | 25 |
| 122 | Understanding Structure-Activity Relationships in SrY CoO through in Situ Neutron Diffraction and Electrochemical Measurements. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 35984-35993 | 9.5 | 4 |
| 121 | Revealing the Structural Stability and Na-Ion Mobility of 3D Superionic Conductor Na ₃ SbS ₄ at Extremely Low Temperatures. <i>ACS Applied Energy Materials</i> , 2018 , 1, 7028-7034 | 6.1 | 9 |
| 120 | Transition from the twinning induced plasticity to the ϵ transformation induced plasticity in a high manganese steel. <i>Acta Materialia</i> , 2018 , 161, 273-284 | 8.4 | 12 |
| 119 | Bending Behavior of a Wrought Magnesium Alloy Investigated by the In Situ Pinhole Neutron Diffraction Method. <i>Crystals</i> , 2018 , 8, 348 | 2.3 | 4 |
| 118 | Lattice distortion in a strong and ductile refractory high-entropy alloy. <i>Acta Materialia</i> , 2018 , 160, 158-172 | 8.4 | 173 |
| 117 | An in situ neutron diffraction study of plastic deformation in a Cu _{46.5} Zr _{46.5} Al ₇ bulk metallic glass composite. <i>Scripta Materialia</i> , 2018 , 153, 118-121 | 5.6 | 17 |
| 116 | Simultaneous Operando Measurements of the Local Temperature, State of Charge, and Strain inside a Commercial Lithium-Ion Battery Pouch Cell. <i>Journal of the Electrochemical Society</i> , 2018 , 165, A1578-A1585 | 3.9 | 23 |
| 115 | In situ neutron diffraction study on tensile deformation behavior of carbon-strengthened CoCrFeMnNi high-entropy alloys at room and elevated temperatures. <i>Journal of Materials Research</i> , 2018 , 33, 3192-3203 | 2.5 | 6 |
| 114 | Structure Evolution and Thermoelectric Properties of Carbonized Polydopamine Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 6655-6660 | 9.5 | 53 |
| 113 | Effect of external stress on deuteride (hydride) precipitation in Zircaloy-4 using in situ neutron diffraction. <i>Journal of Nuclear Materials</i> , 2017 , 487, 396-405 | 3.3 | 9 |
| 112 | NaAlTiO, A Novel Anode Material for Sodium Ion Battery. <i>Scientific Reports</i> , 2017 , 7, 162 | 4.9 | 15 |
| 111 | Stress-induced charge-ordering process in LiMn ₂ O ₄ . <i>Materials Research Letters</i> , 2017 , 5, 89-94 | 7.4 | 9 |
| 110 | In-situ neutron diffraction study on the tension-compression fatigue behavior of a twinning induced plasticity steel. <i>Scripta Materialia</i> , 2017 , 137, 83-87 | 5.6 | 18 |
| 109 | Twinning-mediated work hardening and texture evolution in CrCoFeMnNi high entropy alloys at cryogenic temperature. <i>Materials and Design</i> , 2017 , 131, 419-427 | 8.1 | 41 |

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| 108 | Phase-Transformation Ductilization of Brittle High-Entropy Alloys via Metastability Engineering. <i>Advanced Materials</i> , 2017 , 29, 1701678 | 24 | 280 |
| 107 | Deformation characteristics of the intermetallic alloy 60NiTi. <i>Intermetallics</i> , 2017 , 82, 40-52 | 3.5 | 39 |
| 106 | Thermophysical properties of Ni-containing single-phase concentrated solid solution alloys. <i>Materials and Design</i> , 2017 , 117, 185-192 | 8.1 | 69 |
| 105 | A study of stress-induced phase transformation and micromechanical behavior of CuZr-based alloy by in-situ neutron diffraction. <i>Journal of Alloys and Compounds</i> , 2017 , 696, 1096-1104 | 5.7 | 16 |
| 104 | Kinetic characteristics up to 4.8 V of layered LiNi _{1/3} Co _{1/3} Mn _{1/3} O ₂ cathode materials for high voltage lithium-ion batteries. <i>Electrochimica Acta</i> , 2017 , 227, 152-161 | 6.7 | 33 |
| 103 | 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 |
| 102 | Neutron residual stress measurement and numerical modeling in a curved thin-walled structure by laser powder bed fusion additive manufacturing. <i>Materials and Design</i> , 2017 , 135, 122-132 | 8.1 | 61 |
| 101 | A Combined Variable-Temperature Neutron Diffraction and Thermogravimetric Analysis Study on a Promising Oxygen Electrode, SrCoNbO ₆ , for Reversible Solid Oxide Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 34855-34864 | 9.5 | 16 |
| 100 | High performance aluminum/mercury alloys for high-temperature applications. <i>Materials Horizons</i> , 2017 , 4, 1070-1078 | 14.4 | 81 |
| 99 | Martensitic transformation in a B2-containing CuZr-based BMG composite revealed by in situ neutron diffraction. <i>Journal of Alloys and Compounds</i> , 2017 , 723, 714-721 | 5.7 | 15 |
| 98 | Lattice-Cell Orientation Disorder in Complex Spinel Oxides. <i>Advanced Energy Materials</i> , 2017 , 7, 1601950 | 2.8 | 16 |
| 97 | In Situ Neutron Scattering Study of Nanostructured PbTe-PbS Bulk Thermoelectric Material. <i>Journal of Electronic Materials</i> , 2017 , 46, 2604-2610 | 1.9 | 4 |
| 96 | In-situ TOF neutron diffraction studies of cyclic softening in superelasticity of a NiFeGaCo shape memory alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 680, 324-328 | 5.3 | 12 |
| 95 | Transformation-induced plasticity in bulk metallic glass composites evidenced by in-situ neutron diffraction. <i>Acta Materialia</i> , 2017 , 124, 478-488 | 8.4 | 72 |
| 94 | In-situ Neutron Diffraction Analysis of Crystal Plasticity of Retained Austenite in Bearing Steel. <i>Procedia Engineering</i> , 2017 , 207, 1958-1963 | | 3 |
| 93 | Characterization of Crystallographic Structures Using Bragg-Edge Neutron Imaging at the Spallation Neutron Source. <i>Journal of Imaging</i> , 2017 , 3, 65 | 3.1 | 22 |
| 92 | Understanding low-cycle fatigue life improvement mechanisms in a pre-twinned magnesium alloy. <i>Journal of Alloys and Compounds</i> , 2016 , 656, 539-550 | 5.7 | 25 |
| 91 | Deformation mode transition of Mg 3Li alloy: An in situ neutron diffraction study. <i>Journal of Alloys and Compounds</i> , 2016 , 685, 331-336 | 5.7 | 5 |

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|----|---|------|------|
| 90 | Probing Multiscale Transport and Inhomogeneity in a Lithium-Ion Pouch Cell Using In Situ Neutron Methods. <i>ACS Energy Letters</i> , 2016 , 1, 981-986 | 20.1 | 34 |
| 89 | Gas-solid interfacial modification of oxygen activity in layered oxide cathodes for lithium-ion batteries. <i>Nature Communications</i> , 2016 , 7, 12108 | 17.4 | 379 |
| 88 | High-resolution 2-D Bragg diffraction reveal heterogeneous domain transformation behavior in a bulk relaxor ferroelectric. <i>Applied Physics Letters</i> , 2016 , 109, 092907 | 3.4 | 1 |
| 87 | Stress partitioning behavior of an AlSi10Mg alloy produced by selective laser melting during tensile deformation using in situ neutron diffraction. <i>Journal of Alloys and Compounds</i> , 2016 , 686, 281-286 | 5.7 | 46 |
| 86 | Investigation of deformation twinning under complex stress states in a rolled magnesium alloy. <i>Journal of Alloys and Compounds</i> , 2016 , 683, 619-633 | 5.7 | 21 |
| 85 | Phase-specific deformation behavior of a NiAlCr(Mo) lamellar composite under thermal and mechanical loads. <i>Journal of Alloys and Compounds</i> , 2016 , 656, 481-490 | 5.7 | 22 |
| 84 | Microstructural and micromechanical characterization of IN718 theta shaped specimens built with electron beam melting. <i>Acta Materialia</i> , 2016 , 108, 161-175 | 8.4 | 47 |
| 83 | A precipitation-hardened high-entropy alloy with outstanding tensile properties. <i>Acta Materialia</i> , 2016 , 102, 187-196 | 8.4 | 1020 |
| 82 | An Air-Stable Na ₃ SbS ₄ Superionic Conductor Prepared by a Rapid and Economic Synthetic Procedure. <i>Angewandte Chemie</i> , 2016 , 128, 8693-8697 | 3.6 | 22 |
| 81 | An Air-Stable Na ₃ SbS ₄ Superionic Conductor Prepared by a Rapid and Economic Synthetic Procedure. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 8551-5 | 16.4 | 125 |
| 80 | Operando Lithium Dynamics in the Li-Rich Layered Oxide Cathode Material via Neutron Diffraction. <i>Advanced Energy Materials</i> , 2016 , 6, 1502143 | 21.8 | 85 |
| 79 | Electrostatic levitation facility optimized for neutron diffraction studies of high temperature liquids at a spallation neutron source. <i>Review of Scientific Instruments</i> , 2016 , 87, 013904 | 1.7 | 18 |
| 78 | In situ neutron scattering study of nanoscale phase evolution in PbTe-PbS thermoelectric material. <i>Applied Physics Letters</i> , 2016 , 109, 081903 | 3.4 | 8 |
| 77 | β-Phase transformation kinetics of U _{0.8} W _{0.2} Mo established by in situ neutron diffraction. <i>Journal of Nuclear Materials</i> , 2016 , 477, 149-156 | 3.3 | 15 |
| 76 | Annealing effects on the structural and magnetic properties of off-stoichiometric Fe-Mn-Ga ferromagnetic shape memory alloys. <i>Materials and Design</i> , 2016 , 104, 327-332 | 8.1 | 14 |
| 75 | Intragranular twinning, detwinning, and twinning-like lattice reorientation in magnesium alloys. <i>Acta Materialia</i> , 2016 , 121, 15-23 | 8.4 | 40 |
| 74 | Unraveling cyclic deformation mechanisms of a rolled magnesium alloy using in situ neutron diffraction. <i>Acta Materialia</i> , 2015 , 85, 343-353 | 8.4 | 39 |
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