

# B Clausen

## List of Publications by Year in descending order

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214  
papers

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34016

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218  
docs citations

218  
times ranked

5849  
citing authors

#	ARTICLE	IF	CITATIONS
1	Twinningâ€“detwinning behavior during the strain-controlled low-cycle fatigue testing of a wrought magnesium alloy, ZK60A. Acta Materialia, 2008, 56, 688-695.	3.8	453
2	Self-consistent modelling of the plastic deformation of f.c.c. polycrystals and its implications for diffraction measurements of internal stresses. Acta Materialia, 1998, 46, 3087-3098.	3.8	446
3	Reorientation and stress relaxation due to twinning: Modeling and experimental characterization for Mg. Acta Materialia, 2008, 56, 2456-2468.	3.8	415
4	Austenite Stability Effects on Tensile Behavior of Manganese-Enriched-Austenite Transformation-Induced Plasticity Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3691-3702.	1.1	313
5	Use of Rietveld refinement for elastic macrostrain determination and for evaluation of plastic strain history from diffraction spectra. Journal of Applied Physics, 1997, 82, 1554-1562.	1.1	291
6	Internal stress relaxation and load redistribution during the twinningâ€“detwinning-dominated cyclic deformation of a wrought magnesium alloy, ZK60A. Acta Materialia, 2008, 56, 3699-3707.	3.8	261
7	Lattice strain evolution during uniaxial tensile loading of stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 259, 17-24.	2.6	258
8	Finite element analysis of the plastic deformation zone and working load in equal channel angular extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 382, 217-236.	2.6	180
9	Microstructure, texture and residual stress in a friction-stir-processed AZ31B magnesium alloy. Acta Materialia, 2008, 56, 1701-1711.	3.8	174
10	The effects of texture and extension twinning on the low-cycle fatigue behavior of a rolled magnesium alloy, AZ31B. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 7057-7067.	2.6	170
11	In situ neutron diffraction and polycrystal plasticity modeling of a Mgâ€“Yâ€“Ndâ€“Zr alloy: Effects of precipitation on individual deformation mechanisms. Acta Materialia, 2013, 61, 3769-3780.	3.8	151
12	Evolution of stress in individual grains and twins in a magnesium alloy aggregate. Physical Review B, 2009, 80, .	1.1	149
13	Modeling lattice strain evolution at finite strains and experimental verification for copper and stainless steel using in situ neutron diffraction. International Journal of Plasticity, 2010, 26, 1772-1791.	4.1	149
14	The NeXus data format. Journal of Applied Crystallography, 2015, 48, 301-305.	1.9	133
15	Temperature dependent deformation of the B2 austenite phase of a NiTi shape memory alloy. International Journal of Plasticity, 2013, 51, 103-121.	4.1	117
16	Role of twinning and slip during compressive deformation of beryllium as a function of strain rate. International Journal of Plasticity, 2012, 29, 120-135.	4.1	105
17	Micromechanical quantification of elastic, twinning, and slip strain partitioning exhibited by polycrystalline, monoclinic nickelâ€“titanium during large uniaxial deformations measured via in-situ neutron diffraction. Journal of the Mechanics and Physics of Solids, 2013, 61, 2302-2330.	2.3	105
18	Elastic Moduli Inheritance and the Weakest Link in Bulk Metallic Glasses. Physical Review Letters, 2012, 108, 085501.	2.9	103

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19	Measuring Inaccessible Residual Stresses Using Multiple Methods and Superposition. <i>Experimental Mechanics</i> , 2011, 51, 1123-1134.	1.1	98
20	On elastic moduli and elastic anisotropy in polycrystalline martensitic NiTi. <i>Acta Materialia</i> , 2011, 59, 5055-5066.	3.8	95
21	Evaluation of a thermomechanical model for prediction of residual stress during laser powder bed fusion of Ti-6Al-4V. <i>Additive Manufacturing</i> , 2019, 27, 489-502.	1.7	93
22	Tailored thermal expansion alloys. <i>Acta Materialia</i> , 2016, 102, 333-341.	3.8	92
23	Studying the effect of stress relaxation and creep on lattice strain evolution of stainless steel under tension. <i>Acta Materialia</i> , 2013, 61, 1179-1188.	3.8	89
24	Stress and strain relaxation in magnesium AZ31 rolled plate: In-situ neutron measurement and elastic viscoplastic polycrystal modeling. <i>International Journal of Plasticity</i> , 2016, 79, 275-292.	4.1	87
25	Effect of the loading mode on the evolution of the deformation mechanisms in randomly textured magnesium polycrystals – Comparison of experimental and modeling results. <i>International Journal of Plasticity</i> , 2015, 72, 127-150.	4.1	86
26	Evidence of variation in slip mode in a polycrystalline nickel-base superalloy with change in temperature from neutron diffraction strain measurements. <i>Acta Materialia</i> , 2007, 55, 3089-3102.	3.8	85
27	Measurement of thermal residual stresses in ZrB <sub>2</sub> /SiC composites. <i>Journal of the European Ceramic Society</i> , 2011, 31, 1811-1820.	2.8	85
28	Strain partitioning in ultra-fine grained medium-manganese transformation induced plasticity steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 609, 323-333.	2.6	84
29	X-Ray and Neutron Diffraction Measurements of Dislocation Density and Subgrain Size in a Friction-Stir-Welded Aluminum Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010, 41, 1210-1216.	1.1	82
30	Ferritic Alloys with Extreme Creep Resistance via Coherent Hierarchical Precipitates. <i>Scientific Reports</i> , 2015, 5, 16327.	1.6	80
31	Neutron diffraction measurements of residual stress in additively manufactured stainless steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 678, 291-298.	2.6	78
32	Study of the loading mode dependence of the twinning in random textured cast magnesium by acoustic emission and neutron diffraction methods. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 602, 25-32.	2.6	77
33	In situ neutron diffraction measurements of temperature and stresses during friction stir welding of 6061-T6 aluminium alloy. <i>Science and Technology of Welding and Joining</i> , 2007, 12, 298-303.	1.5	75
34	Connecting the macro- and microstrain responses in technical porous ceramics: modeling and experimental validations. <i>Journal of Materials Science</i> , 2011, 46, 161-173.	1.7	74
35	Transformation-induced plasticity in an ultrafine-grained steel: An in situ neutron diffraction study. <i>Applied Physics Letters</i> , 2007, 90, 101911.	1.5	69
36	Coupled experimental and computational study of residual stresses in additively manufactured Ti-6Al-4V components. <i>Materials Letters</i> , 2018, 231, 221-224.	1.3	69

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37	Texture and strain analysis of the ferroelastic behavior of Pb(Zr,Ti)O <sub>3</sub> by in situ neutron diffraction. <i>Journal of Applied Physics</i> , 2003, 93, 4104-4111.	1.1	68
38	Twinning and Detwinning during Cyclic Deformation of Mg Alloy AZ31B. <i>Materials Science Forum</i> , 2007, 539-543, 3407-3413.	0.3	67
39	Neutron-diffraction study and modeling of the lattice parameters of a NiAl-precipitate-strengthened Fe-based alloy. <i>Acta Materialia</i> , 2012, 60, 5362-5369.	3.8	64
40	Stress measurements in ZrB <sub>2</sub> /SiC composites using Raman spectroscopy and neutron diffraction. <i>Journal of the European Ceramic Society</i> , 2010, 30, 2165-2171.	2.8	63
41	Effect of martensitic phase transformation on the behavior of 304 austenitic stainless steel under tension. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 649, 174-183.	2.6	63
42	Compressive yielding of tungsten fiber reinforced bulk metallic glass composites. <i>Scripta Materialia</i> , 2003, 49, 123-128.	2.6	61
43	Spatially resolved in situ strain measurements from an interior twinned grain in bulk polycrystalline AZ31 alloy. <i>Acta Materialia</i> , 2013, 61, 3612-3620.	3.8	61
44	Deformation twinning and grain partitioning in a hexagonal close-packed magnesium alloy. <i>Nature Communications</i> , 2018, 9, 4761.	5.8	61
45	Plastic behavior of a nickel-based alloy under monotonic-tension and low-cycle-fatigue loading. <i>International Journal of Plasticity</i> , 2008, 24, 1440-1456.	4.1	58
46	Critical comparison of two independent measurements of residual stress in an electron-beam welded uranium cylinder: Neutron diffraction and the contour method. <i>Acta Materialia</i> , 2011, 59, 864-873.	3.8	58
47	Significant strain dependence of piezoelectric constants in In <sub>x</sub> Ga <sub>1-x</sub> N/GaN quantum wells. <i>Physical Review B</i> , 2001, 64, .	1.1	57
48	Measurement of the lattice plane strain and phase fraction evolution during heating and cooling in shape memory NiTi. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	56
49	Investigation of thermal residual stresses in tungsten-fiber/bulk metallic glass matrix composites. <i>Scripta Materialia</i> , 2001, 45, 245-252.	2.6	55
50	A neutron diffraction and modeling study of uniaxial deformation in polycrystalline beryllium. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003, 34, 1439-1449.	1.1	55
51	In-situ Measurement of Crystalline Lattice Strains in Polytetrafluoroethylene. <i>Experimental Mechanics</i> , 2008, 48, 119-131.	1.1	55
52	Lattice strain evolution during cyclic loading of stainless steel. <i>Acta Materialia</i> , 2002, 50, 1627-1638.	3.8	54
53	Neutron diffraction study of the contribution of grain contacts to nonlinear stress-strain behavior. <i>Geophysical Research Letters</i> , 2004, 31, .	1.5	54
54	Microstructure evolution during tensile deformation of a nanostructured bainitic steel. <i>Scripta Materialia</i> , 2013, 69, 777-780.	2.6	53

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55	Comparison of residual strains measured by X-ray and neutron diffraction in a titanium (Ti-6Al-4V) matrix composite. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999, 259, 209-219.	2.6	52
56	On the stress-free lattice expansion of porous cordierite. <i>Acta Materialia</i> , 2010, 58, 1994-2003.	3.8	52
57	Deformation Crossover: From Nano- to Mesoscale. <i>Physical Review Letters</i> , 2009, 103, 035502.	2.9	51
58	An analysis of phase stresses in additively manufactured 304L stainless steel using neutron diffraction measurements and crystal plasticity finite element simulations. <i>International Journal of Plasticity</i> , 2019, 121, 201-217.	4.1	51
59	Experimental evaluation of a polycrystal deformation modeling scheme using neutron diffraction measurements. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 1997, 28, 2537-2541.	1.1	50
60	Dependence of twinned volume fraction on loading mode and Schmid factor in randomly textured magnesium. <i>Acta Materialia</i> , 2017, 130, 319-328.	3.8	50
61	Measurement of residual thermal stress in WC-Co by neutron diffraction. <i>International Journal of Refractory Metals and Hard Materials</i> , 2009, 27, 282-287.	1.7	49
62	A slip system-based kinematic hardening model application to in situ neutron diffraction of cyclic deformation of austenitic stainless steel. <i>International Journal of Fatigue</i> , 2012, 36, 181-193.	2.8	48
63	In-situ neutron diffraction of a quasicrystal-containing Mg alloy interpreted using a new polycrystal plasticity model of hardening due to {10.2} tensile twinning. <i>International Journal of Plasticity</i> , 2018, 100, 34-51.	4.1	47
64	Elastic Residual Strain and Stress Measurements and Corresponding Part Deflections of 3D Additive Manufacturing Builds of IN625 AM-Bench Artifacts Using Neutron Diffraction, Synchrotron X-Ray Diffraction, and Contour Method. <i>Integrating Materials and Manufacturing Innovation</i> , 2019, 8, 318-334.	1.2	45
65	In Situ Neutron Diffraction Study of the Influence of Microstructure on the Mechanical Response of Additively Manufactured 304L Stainless Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 6055-6069.	1.1	44
66	A new strain path to inducing phase transitions in semi-crystalline polymers. <i>Polymer</i> , 2007, 48, 2531-2536.	1.8	43
67	On the evolution and modelling of lattice strains during the cyclic loading of TWIP steel. <i>Acta Materialia</i> , 2013, 61, 5247-5262.	3.8	40
68	Temperature and direction dependence of internal strain and texture evolution during deformation of uranium. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 512, 67-75.	2.6	39
69	A crystal plasticity model based on transition state theory. <i>International Journal of Plasticity</i> , 2017, 93, 251-268.	4.1	39
70	Tensile Deformation Behavior of Duplex Stainless Steel Studied by In-Situ Time-of-Flight Neutron Diffraction. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2008, 39, 3134-3140.	1.1	38
71	Detwinning of High-Purity Zirconium: In-Situ Neutron Diffraction Experiments. <i>Experimental Mechanics</i> , 2010, 50, 125-133.	1.1	38
72	The influence of phase and substructural evolution during dynamic loading on subsequent mechanical properties of zirconium. <i>Acta Materialia</i> , 2013, 61, 7712-7719.	3.8	38

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73	Atomic pair distribution function analysis of materials containing crystalline and amorphous phases. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2005, 220, 1002-1008.	0.4	37
74	Probing the Characteristic Deformation Behaviors of Transformation-Induced Plasticity Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2008, 39, 3105-3112.	1.1	37
75	Deformation behavior of additively manufactured GP1 stainless steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 696, 331-340.	2.6	37
76	In Situ Neutron-Diffraction Studies on the Creep Behavior of a Ferritic Superalloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 1497-1508.	1.1	36
77	Large Strain Deformation in Uranium 6ÅWtÅPct Niobium. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 520-530.	1.1	36
78	Fatigue-induced reversible/irreversible structural-transformations in a Ni-based superalloy. <i>International Journal of Plasticity</i> , 2010, 26, 1124-1137.	4.1	35
79	Signatures of the unique microstructure of additively manufactured steel observed via diffraction. <i>Scripta Materialia</i> , 2018, 155, 16-20.	2.6	34
80	Perspectives on Quenching and Tempering 4340 Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 4984-5005.	1.1	34
81	Predicting deformation behavior of Î±-uranium during tension, compression, load reversal, rolling, and sheet forming using elasto-plastic, multi-level crystal plasticity coupled with finite elements. <i>Journal of the Mechanics and Physics of Solids</i> , 2020, 138, 103924.	2.3	34
82	Measurement and modeling of room temperature co-deformation in WCâ€“10wt.% Co. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005, 399, 134-140.	2.6	33
83	Stress measurements in welds: Problem areas. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006, 437, 33-37.	2.6	33
84	Thermomechanics of Nanocrystalline Nickel under High Pressureâ”Temperature Conditions. <i>Nano Letters</i> , 2007, 7, 426-432.	4.5	33
85	Analysis of the Deformation Behavior of Magnesium-Rare Earth Alloys Mg-2ÅPct Mn-1Åpct Rare Earth and Mg-5Åpct Y-4Åpct Rare Earth by In Situ Energy-Dispersive X-ray Synchrotron Diffraction and Elasto-Plastic Self-Consistent Modeling. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 5721-5735.	1.1	33
86	In Situ Neutron Diffraction Studies of Large Monotonic Deformations of Superelastic Nitinol. <i>Shape Memory and Superelasticity</i> , 2015, 1, 252-267.	1.1	33
87	Nonlinear polarization in nitrides revealed with hydrostatic pressure. <i>Physica Status Solidi (B): Basic Research</i> , 2003, 235, 238-247.	0.7	32
88	Influence of strain rate on mechanical properties and deformation texture of hot-pressed and rolled beryllium. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 5181-5188.	2.6	32
89	An in situ neutron diffraction study of shape setting shape memory NiTi. <i>Acta Materialia</i> , 2013, 61, 3585-3599.	3.8	32
90	On the proper selection of reflections for the measurement of bulk residual stresses by diffraction methods. <i>Acta Materialia</i> , 2003, 51, 6181-6188.	3.8	31

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91	Stability of the two-phase ( $\bar{I} \pm \bar{I}'$ ) microstructure of shocked zirconium. <i>Acta Materialia</i> , 2014, 67, 383-394.	3.8	31
92	Microstructural characteristics of a Ni <sub>2</sub> TiAl-precipitate-strengthened ferritic alloy. <i>Journal of Alloys and Compounds</i> , 2017, 693, 921-928.	2.8	30
93	A generalized spherical harmonics-based procedure for the interpolation of partial datasets of orientation distributions to enable crystal mechanics-based simulations. <i>Materialia</i> , 2019, 6, 100328.	1.3	28
94	Slip-System-Related Dislocation Study from In-Situ Neutron Measurements. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2008, 39, 3079-3088.	1.1	27
95	In situ neutron diffraction evidence for fully reversible dislocation motion in highly textured polycrystalline Ti <sub>2</sub> AlC samples. <i>Acta Materialia</i> , 2015, 98, 51-63.	3.8	27
96	Thermal and Mechanical Response of Industrial Porous Ceramics. <i>Materials Science Forum</i> , 0, 652, 191-196.	0.3	26
97	Twinning and de-twinning in beryllium during strain path changes. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 559, 29-39.	2.6	26
98	Effect of the scanning strategy on the formation of residual stresses in additively manufactured Ti-6Al-4V. <i>Additive Manufacturing</i> , 2021, 45, 102003.	1.7	26
99	Influence of the solute concentration on the anelasticity in Mg-Al alloys: A multiple-approach study. <i>Journal of Alloys and Compounds</i> , 2019, 786, 779-790.	2.8	25
100	Known Residual Stress Specimens Using Opposed Indentation. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2009, 131, .	0.8	24
101	Development of intergranular thermal residual stresses in beryllium during cooling from processing temperatures. <i>Acta Materialia</i> , 2009, 57, 972-979.	3.8	24
102	Investigation of the dependence of deformation mechanisms on solute content in polycrystalline Mg-Al magnesium alloys by neutron diffraction and acoustic emission. <i>Journal of Alloys and Compounds</i> , 2015, 642, 185-191.	2.8	24
103	Neutron diffraction investigation of hysteresis reduction and increase in linearity in the stress-strain response of superelastic NiTi. <i>Applied Physics Letters</i> , 2006, 88, 201919.	1.5	23
104	Measurements and predictions of strain pole figures for uniaxially compressed stainless steel. <i>Scripta Materialia</i> , 2004, 51, 571-575.	2.6	22
105	High Temperature Deformation Mechanism in Hierarchical and Single Precipitate Strengthened Ferritic Alloys by In Situ Neutron Diffraction Studies. <i>Scientific Reports</i> , 2017, 7, 45965.	1.6	22
106	Measurement of Strain/Load Transfer in Parallel Seven-wire Strands with Neutron Diffraction. <i>Experimental Mechanics</i> , 2010, 50, 265-272.	1.1	21
107	Residual stresses in a bulk metallic glass-stainless steel composite. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005, 399, 107-113.	2.6	20
108	An in-situ neutron diffraction study of a multi-phase transformation and twinning-induced plasticity steel during cyclic loading. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	20

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109	A neutron-diffraction study of the low-cycle fatigue behavior of HASTELLOY® C-22HSTM alloy. <i>International Journal of Fatigue</i> , 2007, 29, 1812-1819.	2.8	19
110	Load sharing in tungsten fiber reinforced Kanthal composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006, 421, 9-14.	2.6	18
111	In Situ Neutron Diffraction Studies of Increasing Tension Strains of Superelastic Nitinol. <i>Shape Memory and Superelasticity</i> , 2015, 1, 375-386.	1.1	18
112	Compressive behavior of wire reinforced bulk metallic glass matrix composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005, 399, 128-133.	2.6	17
113	Cyclic-Loading Induced Lattice-Strain Asymmetry in Loading and Transverse Directions. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 1454-1461.	1.1	17
114	Forensic determination of residual stresses and KI from fracture surface mismatch. <i>Engineering Fracture Mechanics</i> , 2014, 116, 158-171.	2.0	17
115	Self-consistent modelling of lattice strains during the in-situ tensile loading of twinning induced plasticity steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 589, 66-75.	2.6	17
116	Thermomechanical behavior and microstructural evolution of a Ni(Pd)-rich Ni <sub>24.3</sub> Ti <sub>49.7</sub> Pd <sub>26</sub> high temperature shape memory alloy. <i>Journal of Alloys and Compounds</i> , 2015, 643, 275-289.	2.8	17
117	Direct numerical simulation of deformation twinning in polycrystals. <i>Acta Materialia</i> , 2016, 120, 348-363.	3.8	17
118	Microstructure Development of 308L Stainless Steel During Additive Manufacturing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 2538-2553.	1.1	17
119	Lattice plane response during tensile loading of an aluminum 2 percent magnesium alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2001, 32, 691-694.	1.1	16
120	The role of residual stress in the tension and compression response of WC-Ni. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 3595-3601.	2.6	16
121	Elastic properties of rolled uranium-10wt.% molybdenum nuclear fuel foils. <i>Scripta Materialia</i> , 2013, 69, 666-669.	2.6	16
122	Neutron diffraction measurement of residual stresses, dislocation density and texture in Zr-bonded U-10Mo fuel foils and plates. <i>Journal of Nuclear Materials</i> , 2016, 482, 63-74.	1.3	16
123	The influence of impurities on the crystal structure and mechanical properties of additive manufactured U-14 at.% Nb. <i>Scripta Materialia</i> , 2017, 130, 59-63.	2.6	16
124	Deformation Behavior of a Double Soaked Medium Manganese Steel with Varied Martensite Strength. <i>Metals</i> , 2019, 9, 761.	1.0	16
125	Analysis of neutron diffraction spectra acquired in situ during mechanical loading of shape memory NiTiFe at low temperatures. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 481-482, 3-10.	2.6	15
126	In-Situ Neutron Diffraction Study of the Bauschinger Effect in B2 Structured CoZr. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 60-70.	1.1	15



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127	In Situ Neutron Diffraction Measurements During Annealing of Deformed Beryllium With Differing Initial Textures. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013, 44, 5665-5675.	1.1	15
128	Neutron Diffraction Measurements and Micromechanical Modelling of Temperature-Dependent Variations in TATB Lattice Parameters. <i>Propellants, Explosives, Pyrotechnics</i> , 2016, 41, 514-525.	1.0	15
129	Microstructural strain energy of $\delta$ -uranium determined by calorimetry and neutron diffractometry. <i>Physical Review B</i> , 2002, 66, .	1.1	14
130	Using In Situ Neutron Diffraction to Isolate Specific Features of Additively Manufactured Microstructures in 304L Stainless Steel and Identify Their Effects on Macroscopic Strength. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 3399-3413.	1.1	14
131	Neutron diffraction study of the reduction of NiAl <sub>2</sub> O <sub>4</sub> . <i>Applied Physics Letters</i> , 2000, 76, 694-696.	1.5	13
132	Compressive deformation of in situ formed bulk metallic glass composites. <i>Scripta Materialia</i> , 2006, 54, 343-347.	2.6	13
133	In situ neutron-diffraction study of tensile deformation of a bulk nanocrystalline alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 506, 187-190.	2.6	13
134	Effect of high temperature heat treatments on the deformation behavior of Mg-2%Mn-0.7%Ce extrusions investigated by in-situ energy-dispersive synchrotron X-ray diffraction and elasto-plastic self-consistent modeling. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 586, 178-189.	2.6	13
135	Using Neutron Diffraction to Investigate Texture Evolution During Consolidation of Deuterated Triaminotrinitrobenzene (d-TATB) Explosive Powder. <i>Crystals</i> , 2017, 7, 138.	1.0	13
136	Dynamic processes of domain switching in lead zirconate titanate under cyclic mechanical loading by in situ neutron diffraction. <i>Acta Materialia</i> , 2010, 58, 1897-1908.	3.8	12
137	Residual Stress Characterization in a Dissimilar Metal Weld Nuclear Reactor Piping System Mock Up. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2013, 135, .	0.4	12
138	Residual Stress Measurements in Dissimilar Weld Metal. <i>Experimental Mechanics</i> , 2015, 55, 1093-1103.	1.1	12
139	In situ neutron diffraction analyses of temperature and stresses during friction stir processing of Mg-3Al-1Zn magnesium alloy. <i>Materials Letters</i> , 2017, 196, 284-287.	1.3	12
140	In Situ Time-Resolved Phase Evolution and Phase Transformations in U-6Wt%Pct Nb. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 2619-2628.	1.1	12
141	High-temperature elastic properties of in situ-reinforced Si <sub>3</sub> N <sub>4</sub> . <i>Applied Physics Letters</i> , 2003, 82, 1039-1041.	1.5	11
142	In situ measurement of crystalline lattice strains in phase IV polytetrafluoroethylene. <i>Journal of Neutron Research</i> , 2007, 15, 139-146.	0.4	11
143	In-Situ Response of WC-Ni Composites under Compressive Load. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2007, 38, 1638-1648.	1.1	11
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