Katharine L Page

List of Publications by Year
in descending order

144 papers	7,367 citations	57758 44 h-index	58581 82 g-index
156 all docs	156 docs citations	156 times ranked	11206 citing authors

#	Article	IF	Citations
1	Crystal Structure and the Paraelectric-to-Ferroelectric Phase Transition of Nanoscale BaTiO₃. Journal of the American Chemical Society, 2008, 130, 6955-6963.	13.7	509
2	Structures, Phase Transitions and Tricritical Behavior of the Hybrid Perovskite Methyl Ammonium Lead Iodide. Scientific Reports, 2016, 6, 35685.	3.3	440
3	Resolving the Structure of Ti₃C₂T_x MXenes through Multilevel Structural Modeling of the Atomic Pair Distribution Function. Chemistry of Materials, 2016, 28, 349-359.	6.7	374
4	Structure-Induced Reversible Anionic Redox Activity in Na Layered Oxide Cathode. Joule, 2018, 2, 125-140.	24.0	311
5	Monoclinic crystal structure of polycrystalline Na0.5Bi0.5TiO3. Applied Physics Letters, 2011, 98, .	3.3	284
6	Local Environments of Dilute Activator Ions in the Solid-State Lighting Phosphor Y_{3â€“x}Ce_xAl₅O₁₂. Chemistry of Materials, 2013, 25, 3979-3995.	6.7	208
7	Dielectric anomalies and spiral magnetic order inCoCr2O4. Physical Review B, 2006, 74, .	3.2	186
8	Multimodality of Structural, Electrical, and Gravimetric Responses of Intercalated MXenes to Water. ACS Nano, 2017, 11, 11118-11126.	14.6	183
9	Average and Local Structure, Debye Temperature, and Structural Rigidity in Some Oxide Compounds Related to Phosphor Hosts. ACS Applied Materials & Interfaces, 2015, 7, 7264-7272.	8.0	159
10	The emergent field of high entropy oxides: Design, prospects, challenges, and opportunities for tailoring material properties. APL Materials, 2020, 8, .	5.1	152
11	Universal Dynamics of Molecular Reorientation in Hybrid Lead Iodide Perovskites. Journal of the American Chemical Society, 2017, 139, 16875-16884.	13.7	129
12	A novel P3-type Na_{2/3}Mg_{1/3}Mn_{2/3}O₂ as high capacity sodium-ion cathode using reversible oxygen redox. Journal of Materials Chemistry A, 2019, 7, 1491-1498.	10.3	122
13	Structural water engaged disordered vanadium oxide nanosheets for high capacity aqueous potassium-ion storage. Nature Communications, 2017, 8, 15520.	12.8	121
14	Preparation of magnetic spinel ferrite core/shell nanoparticles: Soft ferrites on hard ferrites and vice versa. Solid State Sciences, 2006, 8, 1015-1022.	3.2	113
15	Understanding the Low-Voltage Hysteresis of Anionic Redox in Na₂Mn₃O₇. Chemistry of Materials, 2019, 31, 3756-3765.	6.7	112
16	Long-Range Antiferromagnetic Order in a Rocksalt High Entropy Oxide. Chemistry of Materials, 2019, 31, 3705-3711.	6.7	112
17	Local atomic structure deviation from average structure of Na<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub></mml:math>Bi<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub></mml:math>TiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow	3.2	111
18	Average and Local Structural Origins of the Optical Properties of the Nitride Phosphor La_{3â€“x}Ce_xSi₆N₁₁ (0 < x â‰¤ 3). Inorganic Chemistry, 2013, 52, 13730-13741.	4.0	103

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19	Local structure adaptability through multi cations for oxygen redox accommodation in Li-Rich layered oxides. Energy Storage Materials, 2020, 24, 384-393.	18.0	101
20	Local Atomic Ordering in BaTaO₂N Studied by Neutron Pair Distribution Function Analysis and Density Functional Theory. Chemistry of Materials, 2007, 19, 4037-4042.	6.7	96
21	Probing Local Dipoles and Ligand Structure in BaTiO₃ Nanoparticles. Chemistry of Materials, 2010, 22, 4386-4391.	6.7	96
22	A suite-level review of the neutron powder diffraction instruments at Oak Ridge National Laboratory. Review of Scientific Instruments, 2018, 89, 092701.	1.3	90
23	Direct observation of the structure of gold nanoparticles by total scattering powder neutron diffraction. Chemical Physics Letters, 2004, 393, 385-388.	2.6	89
24	In situ synchrotron X-ray pair distribution function analysis of the early stages of gel formation in metakaolin-based geopolymers. Applied Clay Science, 2013, 73, 17-25.	5.2	82
25	Size and Morphology Controlled Synthesis of Boehmite Nanoplates and Crystal Growth Mechanisms. Crystal Growth and Design, 2018, 18, 3596-3606.	3.0	82
26	Local Structural Origins of the Distinct Electronic Properties of Nb-SubstitutedSrTiO3andBaTiO3. Physical Review Letters, 2008, 101, 205502.	7.8	81
27	Boehmite and Gibbsite Nanoplates for the Synthesis of Advanced Alumina Products. ACS Applied Nano Materials, 2018, 1, 7115-7128.	5.0	79
28	Structural water and disordered structure promote aqueous sodium-ion energy storage in sodium-birnessite. Nature Communications, 2019, 10, 4975.	12.8	75
29	Intrinsic differences in atomic ordering of calcium (alumino)silicate hydrates in conventional and alkali-activated cements. Cement and Concrete Research, 2015, 67, 66-73.	11.0	72
30	Building and refining complete nanoparticle structures with total scattering data. Journal of Applied Crystallography, 2011, 44, 327-336.	4.5	70
31	Reciprocal-space and real-space neutron investigation of nanostructured Mo2C and WC. Solid State Sciences, 2008, 10, 1499-1510.	3.2	68
32	Dependence of the Li-Ion Conductivity and Activation Energies on the Crystal Structure and Ionic Radii in Li₆MLa₂Ta₂O₁₂. ACS Applied Materials & Interfaces, 2014, 6, 10900-10907.	8.0	68
33	Quantitative Analysis of the Morphology of {101} and {001} Faceted Anatase TiO₂ Nanocrystals and Its Implication on Photocatalytic Activity. Chemistry of Materials, 2017, 29, 5591-5604.	6.7	65
34	In situ X-ray pair distribution function analysis of geopolymer gel nanostructure formation kinetics. Physical Chemistry Chemical Physics, 2013, 15, 8573.	2.8	60
35	Probing the Local Site Disorder and Distortion in Pyrochlore High-Entropy Oxides. Journal of the American Chemical Society, 2021, 143, 4193-4204.	13.7	60
36	Synchrotron x-ray study of polycrystalline wurtzite Zn1â^'xMgxO (0â©½xâ©½0.15): Evolution of crystal structure and polarization. Applied Physics Letters, 2007, 90, 101904.	3.3	59

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37	Nature of Reactive Hydrogen for Ammonia Synthesis over a Ru/C12A7 Electride Catalyst. Journal of the American Chemical Society, 2020, 142, 7655-7667.	13.7	59
38	POWGEN: rebuild of a third-generation powder diffractometer at the Spallation Neutron Source. Journal of Applied Crystallography, 2019, 52, 1189-1201.	4.5	57
39	Oxygen-redox reactions in LiCoO2 cathode without Oâ€“O bonding during charge-discharge. Joule, 2021, 5, 720-736.	24.0	56
40	Evolution of local structures in polycrystalline<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Zn</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow><mathvariant="normal">Mg</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:mi mathvariant="normal">O</mml:mi></mml:mrow></mml:math><mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"		

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55	Hydrogen adsorption on two catalysts for the ortho- to parahydrogen conversion: Cr-doped silica and ferric oxide gel. Physical Chemistry Chemical Physics, 2016, 18, 17281-17293.	2.8	34
56	Verification of Anderson Superexchange in MnO via Magnetic Pair Distribution Function Analysis andabÂinitioTheory. Physical Review Letters, 2016, 116, 197204.	7.8	34
57	Precise implications for real-space pair distribution function modeling of effects intrinsic to modern time-of-flight neutron diffractometers. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, 293-307.	0.1	31
58	Evidence for Topologically Protected Surface States and a Superconducting Phase in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mo stretchy="false">[</mml:mo><mml:msub><mml:mrow><mml:mi>Tl</mml:mi></mml:mrow><mml:mrow><mml:mn>4</mml:mn></mml:mrow></mml:msub><mml:mo stretchy="false">]</mml:mo><mml:mo		

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73	DShaper: an approach for handling missing low-Qdata in pair distribution function analysis of nanostructured systems. Journal of Applied Crystallography, 2015, 48, 1651-1659.	4.5	23
74	Structural Evolution in Hollandite Solid Solutions Across the Aâ€Site Compositional Range from Ba 1.33 Ga 2.66 Ti 5.34 O 16 to Cs 1.33 Ga 1.33 Ti 6.67 O 16. Journal of the American Ceramic Society, 2016, 99, 4100-4106.	3.8	23
75	Illustrated formalisms for total scattering data: a guide for new practitioners. Journal of Applied Crystallography, 2021, 54, 317-332.	4.5	23
76	Average and local structure of the Pb-free ferroelectric perovskites<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mi>Sr</mml:mi><mml:m xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mo>(</mml:mo><mml:mi>Ba</mml:mi><mml:mo>,</mml:mo><mml:mi>C Physical Review B, 2015, 92, .	3.2	22
77	Ubiquitous Short-Range Distortion of Hybrid Perovskites and Hydrogen-Bonding Role: the MAPbCl₃ Case. Journal of Physical Chemistry C, 2018, 122, 28265-28272.	3.1	21
78	Unified View of the Local Cation-Ordered State in Inverse Spinel Oxides. Inorganic Chemistry, 2019, 58, 14389-14402.	4.0	21
79	Use of Bayesian Inference in Crystallographic Structure Refinement via Full Diffraction Profile Analysis. Scientific Reports, 2016, 6, 31625.	3.3	20
80	Evolution of the pore structure during the early stages of the alkali-activation reaction: an in situ small-angle neutron scattering investigation. Journal of Applied Crystallography, 2017, 50, 61-75.	4.5	20
81	Multiple Promotional Effects of Vanadium Oxide on Boron Nitride for Oxidative Dehydrogenation of Propane. Jacs Au, 2022, 2, 1096-1104.	7.9	20
82	Insight into the local structure of barium indate oxide-ion conductors: An X-ray total scattering study. Dalton Transactions, 2012, 41, 50-53.	3.3	19
83	Countercations Control Local Specific Bonding Interactions and Nucleation Mechanisms in Concentrated Water-in-Salt Solutions. Journal of Physical Chemistry Letters, 2019, 10, 3318-3325.	4.6	19
84	Local atomic structure of Fontainebleau sandstone: Evidence for an amorphous phase?. Geophysical Research Letters, 2004, 31, .	4.0	18
85	Magnetic and nuclear structure of goethite (Î±-FeOOH): a neutron diffraction study. Journal of Applied Crystallography, 2014, 47, 1983-1991.	4.5	18
86	Combinatorial appraisal of transition states for in situ pair distribution function analysis. Journal of Applied Crystallography, 2017, 50, 1744-1753.	4.5	18
87	Retarder effect on hydrating oil well cements investigated using in situ neutron/X-ray pair distribution function analysis. Cement and Concrete Research, 2019, 126, 105920.	11.0	18
88	Preparation and characterization of Pd2Sn nanoparticles. Materials Research Bulletin, 2007, 42, 1969-1975.	5.2	17
89	Thermal desulfurization of pyrite: An in situ high-T neutron diffraction and DTAâ€“TGA study. Journal of Materials Research, 2019, 34, 3243-3253.	2.6	17
90	Persistent Structure and Frustrated Magnetism in High Entropy Rareâ€Earth Zirconates. Small, 2022, 18, e2101323.	10.0	16

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91	Synthesis and structural study of Ti-rich Mgâ€“Ti hydrides. Journal of Alloys and Compounds, 2014, 593, 132-136.	5.5	15
92	Kinetically Controlled Linker Binding in Rare Earth-2,5-Dihydroxyterepthalic Acid Metalâ€“Organic Frameworks and Its Predicted Effects on Acid Gas Adsorption. ACS Applied Materials & Interfaces, 2021, 13, 56337-56347.	8.0	15
93	Decoding Oxyanion Aqueous Solvation Structure: A Potassium Nitrate Example at Saturation. Journal of Physical Chemistry B, 2018, 122, 7584-7589.	2.6	14
94	Resolving local configurational contributions to X-ray and neutron radial distribution functions within solutions of concentrated electrolytes â€“ a case study of concentrated NaOH. Physical Chemistry Chemical Physics, 2019, 21, 6828-6838.	2.8	14
95	Effect of BaCO₃ Impurities on the Structure of BaTiO₃ Nanocrystals: Implications for Multilayer Ceramic Capacitors. ACS Applied Nano Materials, 2020, 3, 9715-9723.	5.0	14
96	Icosahedra clustering and short range order in Ni-Nb-Zr amorphous membranes. Scientific Reports, 2018, 8, 6084.	3.3	13
97	Nanoscale degeneracy lifting in a geometrically frustrated antiferromagnet. Physical Review B, 2020, 101, .	3.2	13
98	Sulfur Tolerant Subnanometer Fe/Alumina Catalysts for Propane Dehydrogenation. ACS Applied Nano Materials, 2021, 4, 10055-10067.	5.0	13
99	Capturing the Details of N₂ Adsorption in Zeolite X Using Stroboscopic Isotope Contrasted Neutron Total Scattering. Chemistry of Materials, 2018, 30, 296-302.	6.7	12
100	Coupled Multimodal Dynamics of Hydrogen-Containing Ion Networks in Water-Deficient, Sodium Hydroxide-Aluminate Solutions. Journal of Physical Chemistry B, 2018, 122, 12097-12106.	2.6	12
101	Structure determination and magnetic properties of the Mn-doped MAX phase Cr₂GaC. Materials Chemistry Frontiers, 2021, 5, 6082-6091.	5.9	12
102	Uncorrelated Bi off-centering and the insulator-to-metal transition in ruthenium A2Ru2O7 pyrochlores. Physical Review Materials, 2019, 3, .	2.4	12
103	Metal oxide decorated porous carbons from controlled calcination of a metalâ€“organic framework. Nanoscale Advances, 2020, 2, 2758-2767.	4.6	10
104	Extracting differential pair distribution functions usingMIXSCAT. Journal of Applied Crystallography, 2010, 43, 635-638.	4.5	9
105	Structural Investigation of the Substituted Pyrochlore AgSbO₃ through Total Scattering Techniques. Inorganic Chemistry, 2013, 52, 11530-11537.	4.0	9
106	Empirical potential structure refinement of semi-crystalline polymer systems: polytetrafluoroethylene and polychlorotrifluoroethylene. Journal of Physics Condensed Matter, 2013, 25, 454219.	1.8	9
107	A high precision gas flow cell for performingin situneutron studies of local atomic structure in catalytic materials. Review of Scientific Instruments, 2017, 88, 034101.	1.3	9
108	Influence of Cation Size on the Local Atomic Structure and Electronic Properties of Ta Perovskite Oxynitrides. Inorganic Chemistry, 2021, 60, 14190-14201.	4.0	9

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109	Catalytic activity and water stability of the MgO(111) surface for 2-pentanone condensation. Applied Catalysis B: Environmental, 2021, 294, 120234.	20.2	9
110	Synthesis and structural characterization of dense polycrystalline Mg9Sn5, a metastable Mgâ€“Sn phase. Journal of Alloys and Compounds, 2014, 616, 333-339.	5.5	8
111	Cation and anion ordering in Sr₂Si₇Al₃ON₁₃ phosphors. Journal of Materials Chemistry C, 2015, 3, 3135-3140.	5.5	8
112	The Role of Structural and Compositional Heterogeneities in the Insulator-to-Metal Transition in Hole-Doped APd₃O₄ (A = Ca, Sr). Inorganic Chemistry, 2017, 56, 5158-5164.	4.0	8
113	Learning to Predict Material Structure from Neutron Scattering Data. , 2019, , .		8
114	Structural, Chemical, Electrical, and Thermal Properties of n-Type NbFeSb. Inorganic Chemistry, 2019, 58, 1826-1833.	4.0	8
115	Magnetic hardening and antiferromagnetic/ferromagnetic phase coexistence in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Mn</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mspace width="0.16em" /><mml:mi>Sn</mml:mi></mml:mrow></mml:msub></mml:mrow></mml:math>Heusler solid solutions. Physical Review B, 2016, 94, .	3.2	7
116	Structure Evolution of Chemically Degraded ZIF-8. Journal of Physical Chemistry C, 2022, 126, 9736-9741.	3.1	7
117	Correlation between the local scale structure and the electrochemical properties in lithium orthosilicate cathode materials. Journal of Materials Chemistry A, 2014, 2, 17867-17874.	10.3	6
118	Heterogeneous nucleation in Zr-Cu-Al-Ag metallic glasses triggered by quenched-in metastable crystals - A time-resolved neutron diffraction study. Physica B: Condensed Matter, 2018, 551, 60-63.	2.7	6
119	Magnetoelastic coupling, negative thermal expansion, and two-dimensional magnetic excitations in FeAs. Physical Review B, 2021, 103, .	3.2	6
120	Hydrothermal Preparation, Crystal Chemistry, and Redox Properties of Iron Muscovite Clay. ACS Applied Materials & Interfaces, 2017, 9, 34024-34032.	8.0	5
121	A high temperature gas flow environment for neutron total scattering studies of complex materials. Review of Scientific Instruments, 2018, 89, 092906.	1.3	5
122	Calorimetric study of the thermodynamic properties of Mn 5 O 8. Journal of the American Ceramic Society, 2019, 102, 1394-1401.	3.8	5
123	Temperature Dependent Local Atomic Structure and Vibrational Dynamics of Barium Hydride and Calcium Hydride. Journal of Physical Chemistry C, 2021, 125, 24328-24339.	3.1	5
124	Pressure/temperature fluid cell apparatus for the neutron powder diffractometer instrument: Probing atomic structure in situ. Review of Scientific Instruments, 2014, 85, 125116.	1.3	4
125	Pair distribution function analysis applied to decahedral gold nanoparticles. Physica Scripta, 2017, 92, 114002.	2.5	4
126	Time-of-flight neutron total scattering with applied electric fields:Ex situandin situstudies of ferroelectric materials. Review of Scientific Instruments, 2018, 89, 092905.	1.3	4

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127	A uniaxial load frame forin situneutron studies of stress-induced changes in cementitious materials and related systems. Review of Scientific Instruments, 2018, 89, 092903.	1.3	4
128	Effect of Ligand Polarity on the Internal Dipoles and Ferroelectric Distortion in BaTiO 3 Nanocubes. Chemistry - A European Journal, 2021, 27, 8365-8371.	3.3	4
129	Controlled Demolition and Reconstruction of Imidazolate and Carboxylate Metalâ€“Organic Frameworks by Acid Gas Exposure and Linker Treatment. Industrial & Engineering Chemistry Research, 2021, 60, 15582-15592.	3.7	4
130	Temperature dependent local structure coherence of surface-modified BaTiO₃ nanocubes. Journal of Materials Chemistry C, 0, , .	5.5	4
131	X-ray and neutron total scattering analysis of H_yÂ·(Bi_{0.2}Ca_{0.55}Sr_{0.25})(Ag_{0.25}Na_{0.75})Nb<sub> perovskite nanosheet booklets with stacking disorder. Powder Diffraction, 2016, 31, 126-134.	0.7	3
132	Structural and magnetic short-range order in fluorite <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Yb</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>O</mml:mi><mml:mn></mml:m Physical Review B, 2017, 96, .	3.2	3
133	Structural features associated with multiferroic behavior in the RX₃(BO₃)₄ system. Journal of Physics Condensed Matter, 2019, 31, 505704.	1.8	3
134	Controlled Metal Oxide and Porous Carbon Templation Using Metal-Organic Frameworks. Crystal Growth and Design, 2021, 21, 4249-4258.	3.0	3
135	Detailed total scattering analysis of disorder in ZIF-8. Journal of Applied Crystallography, 2021, 54, 759-767.	4.5	3
136	The high pressure gas capabilities at Oak Ridge National Laboratoryâ€™s neutron facilities. Review of Scientific Instruments, 2018, 89, 092907.	1.3	2
137	Time-dependent Local and Average Structural Evolution of Î´-phase 239Pu-Ga Alloys. MRS Advances, 2016, 1, 3019-3025.	0.9	1
138	Preface: Special Topic on Advances in Modern Neutron Diffraction at Oak Ridge National Laboratory. Review of Scientific Instruments, 2018, 89, 092601.	1.3	1
139	Simulating and benchmarking neutron total scattering instrumentation from inception of events to reduced and fitted data. Journal of Applied Crystallography, 2021, 54, 1047-1056.	4.5	1
140	MgO(111) Nanocatalyst for Biomass Conversion: A Study of Carbon Coating Effects on Catalyst Faceting and Performance. Catalysis Letters, 0, , 1.	2.6	1
141	Studies on the decomposition of tungsten hexacarbonyl, W(CO)6. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s201-s202.	0.3	0
142	The 8th American Conference on Neutron Scattering. Neutron News, 2016, 27, 4-10.	0.2	0
143	Understanding Hollow Metal Oxide Nanomaterial Formation with in situ Transmission Electron Microscopy. Microscopy and Microanalysis, 2017, 23, 2066-2067.	0.4	0
144	Neutron Scattering Investigations of Hydride Species in Heterogeneous Catalysis. ChemSusChem, 2019, 12, 5-5.	6.8	0