

# Katharine L Page

## List of Publications by Year in descending order

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156  
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156  
docs citations

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times ranked

11206  
citing authors

#	ARTICLE	IF	CITATIONS
1	Crystal Structure and the Paraelectric-to-Ferroelectric Phase Transition of Nanoscale BaTiO <sub>3</sub> . Journal of the American Chemical Society, 2008, 130, 6955-6963.	6.6	509
2	Structures, Phase Transitions and Tricritical Behavior of the Hybrid Perovskite Methyl Ammonium Lead Iodide. Scientific Reports, 2016, 6, 35685.	1.6	440
3	Resolving the Structure of Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXenes through Multilevel Structural Modeling of the Atomic Pair Distribution Function. Chemistry of Materials, 2016, 28, 349-359.	3.2	374
4	Structure-Induced Reversible Anionic Redox Activity in Na Layered Oxide Cathode. Joule, 2018, 2, 125-140.	11.7	311
5	Monoclinic crystal structure of polycrystalline Na <sub>0.5</sub> Bi <sub>0.5</sub> TiO <sub>3</sub> . Applied Physics Letters, 2011, 98, .	1.5	284
6	Local Environments of Dilute Activator Ions in the Solid-State Lighting Phosphor Y <sub>3</sub> Al <sub>5</sub> O <sub>12</sub> :Ce. Chemistry of Materials, 2013, 25, 3979-3995.	3.2	208
7	Dielectric anomalies and spiral magnetic order in CoCr <sub>2</sub> O <sub>4</sub> . Physical Review B, 2006, 74, .	1.1	186
8	Multimodality of Structural, Electrical, and Gravimetric Responses of Intercalated MXenes to Water. ACS Nano, 2017, 11, 11118-11126.	7.3	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.	4.0	159
10	The emergent field of high entropy oxides: Design, prospects, challenges, and opportunities for tailoring material properties. APL Materials, 2020, 8, .	2.2	152
11	Universal Dynamics of Molecular Reorientation in Hybrid Lead Iodide Perovskites. Journal of the American Chemical Society, 2017, 139, 16875-16884.	6.6	129
12	A novel P3-type Na <sub>2/3</sub> Mg <sub>1/3</sub> Mn <sub>2/3</sub> O <sub>2</sub> as high capacity sodium-ion cathode using reversible oxygen redox. Journal of Materials Chemistry A, 2019, 7, 1491-1498.	5.2	122
13	Structural water engaged disordered vanadium oxide nanosheets for high capacity aqueous potassium-ion storage. Nature Communications, 2017, 8, 15520.	5.8	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.	1.5	113
15	Understanding the Low-Voltage Hysteresis of Anionic Redox in Na <sub>2</sub> Mn <sub>3</sub> O <sub>7</sub> . Chemistry of Materials, 2019, 31, 3756-3765.	3.2	112
16	Long-Range Antiferromagnetic Order in a Rocksalt High Entropy Oxide. Chemistry of Materials, 2019, 31, 3705-3711.	3.2	112
17	Local atomic structure deviation from average structure of Na <sub>0.5</sub> Bi <sub>0.5</sub> TiO <sub>3</sub> . Applied Physics Letters, 2011, 98, .	1.1	111
18	Average and Local Structural Origins of the Optical Properties of the Nitride Phosphor La <sub>3</sub> CeSi <sub>6</sub> N <sub>11</sub> (0 &lt; i>x</i> 3). Inorganic Chemistry, 2013, 52, 13730-13741.	1.9	103

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19	Local structure adaptability through multi cations for oxygen redox accommodation in Li-Rich layered oxides. <i>Energy Storage Materials</i> , 2020, 24, 384-393.	9.5	101
20	Local Atomic Ordering in BaTaO <sub>2</sub> N Studied by Neutron Pair Distribution Function Analysis and Density Functional Theory. <i>Chemistry of Materials</i> , 2007, 19, 4037-4042.	3.2	96
21	Probing Local Dipoles and Ligand Structure in BaTiO <sub>3</sub> Nanoparticles. <i>Chemistry of Materials</i> , 2010, 22, 4386-4391.	3.2	96
22	A suite-level review of the neutron powder diffraction instruments at Oak Ridge National Laboratory. <i>Review of Scientific Instruments</i> , 2018, 89, 092701.	0.6	90
23	Direct observation of the structure of gold nanoparticles by total scattering powder neutron diffraction. <i>Chemical Physics Letters</i> , 2004, 393, 385-388.	1.2	89
24	In situ synchrotron X-ray pair distribution function analysis of the early stages of gel formation in metakaolin-based geopolymers. <i>Applied Clay Science</i> , 2013, 73, 17-25.	2.6	82
25	Size and Morphology Controlled Synthesis of Boehmite Nanoplates and Crystal Growth Mechanisms. <i>Crystal Growth and Design</i> , 2018, 18, 3596-3606.	1.4	82
26	Local Structural Origins of the Distinct Electronic Properties of Nb-Substituted SrTiO <sub>3</sub> and BaTiO <sub>3</sub> . <i>Physical Review Letters</i> , 2008, 101, 205502.	2.9	81
27	Boehmite and Gibbsite Nanoplates for the Synthesis of Advanced Alumina Products. <i>ACS Applied Nano Materials</i> , 2018, 1, 7115-7128.	2.4	79
28	Structural water and disordered structure promote aqueous sodium-ion energy storage in sodium-birnessite. <i>Nature Communications</i> , 2019, 10, 4975.	5.8	75
29	Intrinsic differences in atomic ordering of calcium (alumino)silicate hydrates in conventional and alkali-activated cements. <i>Cement and Concrete Research</i> , 2015, 67, 66-73.	4.6	72
30	Building and refining complete nanoparticle structures with total scattering data. <i>Journal of Applied Crystallography</i> , 2011, 44, 327-336.	1.9	70
31	Reciprocal-space and real-space neutron investigation of nanostructured Mo <sub>2</sub> C and WC. <i>Solid State Sciences</i> , 2008, 10, 1499-1510.	1.5	68
32	Dependence of the Li-Ion Conductivity and Activation Energies on the Crystal Structure and Ionic Radii in Li <sub>6</sub> MLa <sub>2</sub> Ta <sub>2</sub> O <sub>12</sub> . <i>ACS Applied Materials &amp; Interfaces</i> , 2014, 6, 10900-10907.	4.0	68
33	Quantitative Analysis of the Morphology of {101} and {001} Faceted Anatase TiO <sub>2</sub> Nanocrystals and Its Implication on Photocatalytic Activity. <i>Chemistry of Materials</i> , 2017, 29, 5591-5604.	3.2	65
34	In situ X-ray pair distribution function analysis of geopolymer gel nanostructure formation kinetics. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 8573.	1.3	60
35	Probing the Local Site Disorder and Distortion in Pyrochlore High-Entropy Oxides. <i>Journal of the American Chemical Society</i> , 2021, 143, 4193-4204.	6.6	60
36	Synchrotron x-ray study of polycrystalline wurtzite Zn <sub>1-x</sub> Mg <sub>x</sub> O (0 ≤ x ≤ 0.15): Evolution of crystal structure and polarization. <i>Applied Physics Letters</i> , 2007, 90, 101904.	1.5	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.	6.6	59
38	POWGEN: rebuild of a third-generation powder diffractometer at the Spallation Neutron Source. Journal of Applied Crystallography, 2019, 52, 1189-1201.	1.9	57
39	Oxygen-redox reactions in LiCoO <sub>2</sub> cathode without O-O bonding during charge-discharge. Joule, 2021, 5, 720-736.	11.7	56
40	Evolution of local structures in polycrystalline $\text{Zn}_{1-x}\text{Mg}_x\text{O}$		

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55	Hydrogen adsorption on two catalysts for the ortho- to parahydrogen conversion: Cr-doped silica and ferric oxide gel. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 17281-17293.	1.3	34
56	Verification of Anderson Superexchange in MnO via Magnetic Pair Distribution Function Analysis and <i>ab initio</i> Theory. <i>Physical Review Letters</i> , 2016, 116, 197204.	2.9	34
57	Precise implications for real-space pair distribution function modeling of effects intrinsic to modern time-of-flight neutron diffractometers. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2018, 74, 293-307.	0.0	31
58	Evidence for Topologically Protected Surface States and a Superconducting Phase in $Tl_{1-x}Bi_xTe_2$		

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73	<i>i&gt;DShaper</i> : an approach for handling missing low- <i>Q</i> data in pair distribution function analysis of nanostructured systems. <i>Journal of Applied Crystallography</i> , 2015, 48, 1651-1659.	1.9	23
74	Structural Evolution in Hollandite Solid Solutions Across the Site Compositional Range from Ba <sub>1.33</sub> Ga <sub>2.66</sub> Ti <sub>5.34</sub> O <sub>16</sub> to Cs <sub>1.33</sub> Ga <sub>1.33</sub> Ti <sub>6.67</sub> O <sub>16</sub> . <i>Journal of the American Ceramic Society</i> , 2016, 99, 4100-4106.	1.9	23
75	Illustrated formalisms for total scattering data: a guide for new practitioners. <i>Journal of Applied Crystallography</i> , 2021, 54, 317-332.	1.9	23
76	Average and local structure of the Pb-free ferroelectric perovskites $\text{Sr}_{1-x}\text{Ba}_x\text{TiO}_3$ . <i>Physical Review B</i> , 2015, 92, .	1.9	23
77	Ubiquitous Short-Range Distortion of Hybrid Perovskites and Hydrogen-Bonding Role: the MAPbCl <sub>3</sub> Case. <i>Journal of Physical Chemistry C</i> , 2018, 122, 28265-28272.	1.5	21
78	Unified View of the Local Cation-Ordered State in Inverse Spinel Oxides. <i>Inorganic Chemistry</i> , 2019, 58, 14389-14402.	1.9	21
79	Use of Bayesian Inference in Crystallographic Structure Refinement via Full Diffraction Profile Analysis. <i>Scientific Reports</i> , 2016, 6, 31625.	1.6	20
80	Evolution of the pore structure during the early stages of the alkali-activation reaction: an <i>in situ</i> small-angle neutron scattering investigation. <i>Journal of Applied Crystallography</i> , 2017, 50, 61-75.	1.9	20
81	Multiple Promotional Effects of Vanadium Oxide on Boron Nitride for Oxidative Dehydrogenation of Propane. <i>Jacs Au</i> , 2022, 2, 1096-1104.	3.6	20
82	Insight into the local structure of barium indate oxide-ion conductors: An X-ray total scattering study. <i>Dalton Transactions</i> , 2012, 41, 50-53.	1.6	19
83	Counteractions Control Local Specific Bonding Interactions and Nucleation Mechanisms in Concentrated Water-in-Salt Solutions. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 3318-3325.	2.1	19
84	Local atomic structure of Fontainebleau sandstone: Evidence for an amorphous phase?. <i>Geophysical Research Letters</i> , 2004, 31, .	1.5	18
85	Magnetic and nuclear structure of goethite ( $\bar{1}\pm\text{FeOOH}$ ): a neutron diffraction study. <i>Journal of Applied Crystallography</i> , 2014, 47, 1983-1991.	1.9	18
86	Combinatorial appraisal of transition states for <i>in situ</i> pair distribution function analysis. <i>Journal of Applied Crystallography</i> , 2017, 50, 1744-1753.	1.9	18
87	Retarder effect on hydrating oil well cements investigated using <i>in situ</i> neutron/X-ray pair distribution function analysis. <i>Cement and Concrete Research</i> , 2019, 126, 105920.	4.6	18
88	Preparation and characterization of Pd <sub>2</sub> Sn nanoparticles. <i>Materials Research Bulletin</i> , 2007, 42, 1969-1975.	2.7	17
89	Thermal desulfurization of pyrite: An <i>in situ</i> high-T neutron diffraction and DTA-TGA study. <i>Journal of Materials Research</i> , 2019, 34, 3243-3253.	1.2	17
90	Persistent Structure and Frustrated Magnetism in High Entropy Rare-Earth Zirconates. <i>Small</i> , 2022, 18, e2101323.	5.2	16

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91	Synthesis and structural study of Ti-rich Mg <sup>2+</sup> Ti hydrides. Journal of Alloys and Compounds, 2014, 593, 132-136.	2.8	15
92	Kinetically Controlled Linker Binding in Rare Earth-2,5-Dihydroxyterephthalic Acid Metal-Organic Frameworks and Its Predicted Effects on Acid Gas Adsorption. ACS Applied Materials & Interfaces, 2021, 13, 56337-56347.	4.0	15
93	Decoding Oxyanion Aqueous Solvation Structure: A Potassium Nitrate Example at Saturation. Journal of Physical Chemistry B, 2018, 122, 7584-7589.	1.2	14
94	Resolving local configurational contributions to X-ray and neutron radial distribution functions within solutions of concentrated electrolytes – a case study of concentrated NaOH. Physical Chemistry Chemical Physics, 2019, 21, 6828-6838.	1.3	14
95	Effect of BaCO <sub>3</sub> Impurities on the Structure of BaTiO <sub>3</sub> Nanocrystals: Implications for Multilayer Ceramic Capacitors. ACS Applied Nano Materials, 2020, 3, 9715-9723.	2.4	14
96	Icosahedra clustering and short range order in Ni-Nb-Zr amorphous membranes. Scientific Reports, 2018, 8, 6084.	1.6	13
97	Nanoscale degeneracy lifting in a geometrically frustrated antiferromagnet. Physical Review B, 2020, 101, .	1.1	13
98	Sulfur Tolerant Subnanometer Fe/Alumina Catalysts for Propane Dehydrogenation. ACS Applied Nano Materials, 2021, 4, 10055-10067.	2.4	13
99	Capturing the Details of N <sub>2</sub> Adsorption in Zeolite X Using Stroboscopic Isotope Contrast Neutron Total Scattering. Chemistry of Materials, 2018, 30, 296-302.	3.2	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.	1.2	12
101	Structure determination and magnetic properties of the Mn-doped MAX phase Cr <sub>2</sub> GaC. Materials Chemistry Frontiers, 2021, 5, 6082-6091.	3.2	12
102	Uncorrelated Bi off-centering and the insulator-to-metal transition in ruthenium A <sub>2</sub> Ru <sub>2</sub> O <sub>7</sub> pyrochlores. Physical Review Materials, 2019, 3, .	0.9	12
103	Metal oxide decorated porous carbons from controlled calcination of a metal-organic framework. Nanoscale Advances, 2020, 2, 2758-2767.	2.2	10
104	Extracting differential pair distribution functions using MIXSCAT. Journal of Applied Crystallography, 2010, 43, 635-638.	1.9	9
105	Structural Investigation of the Substituted Pyrochlore AgSbO <sub>3</sub> through Total Scattering Techniques. Inorganic Chemistry, 2013, 52, 11530-11537.	1.9	9
106	Empirical potential structure refinement of semi-crystalline polymer systems: polytetrafluoroethylene and polychlorotrifluoroethylene. Journal of Physics Condensed Matter, 2013, 25, 454219.	0.7	9
107	A high precision gas flow cell for performing in situ neutron studies of local atomic structure in catalytic materials. Review of Scientific Instruments, 2017, 88, 034101.	0.6	9
108	Influence of Cation Size on the Local Atomic Structure and Electronic Properties of Ta Perovskite Oxynitrides. Inorganic Chemistry, 2021, 60, 14190-14201.	1.9	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.	10.8	9
110	Synthesis and structural characterization of dense polycrystalline Mg <sub>9</sub> Sn <sub>5</sub> , a metastable Mgâ€“Sn phase. Journal of Alloys and Compounds, 2014, 616, 333-339.	2.8	8
111	Cation and anion ordering in Sr <sub>2</sub> Si <sub>7</sub> Al <sub>3</sub> ON <sub>13</sub> phosphors. Journal of Materials Chemistry C, 2015, 3, 3135-3140.	2.7	8
112	The Role of Structural and Compositional Heterogeneities in the Insulator-to-Metal Transition in Hole-Doped APd <sub>3</sub> O <sub>4</sub> (A = Ca, Sr). Inorganic Chemistry, 2017, 56, 5158-5164.	1.9	8
113	Learning to Predict Material Structure from Neutron Scattering Data. , 2019, , .		8
114	Structural, Chemical, Electrical, and Thermal Properties of <i>n</i> -Type NbFeSb. Inorganic Chemistry, 2019, 58, 1826-1833.	1.9	8
115	Magnetic hardening and antiferromagnetic/ferromagnetic phase coexistence in $\text{Mn}_{1-x}\text{Sn}_x$ Heusler solid solutions. Physical Review B, 2016, 94, .	1.1	7
116	Structure Evolution of Chemically Degraded ZIF-8. Journal of Physical Chemistry C, 2022, 126, 9736-9741.	1.5	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.	5.2	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.	1.3	6
119	Magnetoelastic coupling, negative thermal expansion, and two-dimensional magnetic excitations in FeAs. Physical Review B, 2021, 103, .	1.1	6
120	Hydrothermal Preparation, Crystal Chemistry, and Redox Properties of Iron Muscovite Clay. ACS Applied Materials & Interfaces, 2017, 9, 34024-34032.	4.0	5
121	A high temperature gas flow environment for neutron total scattering studies of complex materials. Review of Scientific Instruments, 2018, 89, 092906.	0.6	5
122	Calorimetric study of the thermodynamic properties of Mn <sub>5</sub> O <sub>8</sub> . Journal of the American Ceramic Society, 2019, 102, 1394-1401.	1.9	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.	1.5	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.	0.6	4
125	Pair distribution function analysis applied to decahedral gold nanoparticles. Physica Scripta, 2017, 92, 114002.	1.2	4
126	Time-of-flight neutron total scattering with applied electric fields: Ex situ and in situ studies of ferroelectric materials. Review of Scientific Instruments, 2018, 89, 092905.	0.6	4



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127	A uniaxial load frame for in situ neutron studies of stress-induced changes in cementitious materials and related systems. <i>Review of Scientific Instruments</i> , 2018, 89, 092903.	0.6	4
128	Effect of Ligand Polarity on the Internal Dipoles and Ferroelectric Distortion in BaTiO <sub>3</sub> Nanocubes. <i>Chemistry - A European Journal</i> , 2021, 27, 8365-8371.	1.7	4
129	Controlled Demolition and Reconstruction of Imidazolate and Carboxylate Metal-Organic Frameworks by Acid Gas Exposure and Linker Treatment. <i>Industrial &amp; Engineering Chemistry Research</i> , 2021, 60, 15582-15592.	1.8	4
130	Temperature dependent local structure coherence of surface-modified BaTiO <sub>3</sub> nanocubes. <i>Journal of Materials Chemistry C</i> , 0, , .	2.7	4
131	X-ray and neutron total scattering analysis of H <sub>2</sub> Y <sub>2</sub> ·nH <sub>2</sub> O·xH <sub>2</sub> O (Bi <sub>0.2</sub> Ca <sub>0.55</sub> Sr <sub>0.25</sub> )(Ag <sub>0.25</sub> Na <sub>0.75</sub> )Nb <sub>2</sub> O <sub>10</sub> perovskite nanosheet booklets with stacking disorder. <i>Powder Diffraction</i> , 2016, 31, 126-134.		
132	Structural and magnetic short-range order in fluorite $\text{Yb}_2\text{Y}_2\text{O}_7$ . <i>Physical Review B</i> , 2017, 96, .		
133	Structural features associated with multiferroic behavior in the $\text{R}_3\text{BO}_3$ system. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 505704.	0.7	3
134	Controlled Metal Oxide and Porous Carbon Templation Using Metal-Organic Frameworks. <i>Crystal Growth and Design</i> , 2021, 21, 4249-4258.	1.4	3
135	Detailed total scattering analysis of disorder in ZIF-8. <i>Journal of Applied Crystallography</i> , 2021, 54, 759-767.	1.9	3
136	The high pressure gas capabilities at Oak Ridge National Laboratory's neutron facilities. <i>Review of Scientific Instruments</i> , 2018, 89, 092907.	0.6	2
137	Time-dependent Local and Average Structural Evolution of $\gamma$ -phase <sup>239</sup> Pu-Ga Alloys. <i>MRS Advances</i> , 2016, 1, 3019-3025.	0.5	1
138	Preface: Special Topic on Advances in Modern Neutron Diffraction at Oak Ridge National Laboratory. <i>Review of Scientific Instruments</i> , 2018, 89, 092601.	0.6	1
139	Simulating and benchmarking neutron total scattering instrumentation from inception of events to reduced and fitted data. <i>Journal of Applied Crystallography</i> , 2021, 54, 1047-1056.	1.9	1
140	MgO(111) Nanocatalyst for Biomass Conversion: A Study of Carbon Coating Effects on Catalyst Faceting and Performance. <i>Catalysis Letters</i> , 0, , 1.	1.4	1
141	Studies on the decomposition of tungsten hexacarbonyl, W(CO) <sub>6</sub> . <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2010, 66, s201-s202.	0.3	0
142	The 8th American Conference on Neutron Scattering. <i>Neutron News</i> , 2016, 27, 4-10.	0.1	0
143	Understanding Hollow Metal Oxide Nanomaterial Formation with in situ Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2017, 23, 2066-2067.	0.2	0
144	Neutron Scattering Investigations of Hydride Species in Heterogeneous Catalysis. <i>ChemSusChem</i> , 2019, 12, 5-5.	3.6	0