

Katharine L Page

List of Publications by Year in descending order

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144
papers

7,367
citations

57631

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58464

82
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docs citations

156
times ranked

11206
citing authors

#	ARTICLE	IF	CITATIONS
1	Persistent Structure and Frustrated Magnetism in High Entropy Rare-Earth Zirconates. <i>Small</i> , 2022, 18, e2101323.	5.2	16
2	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
3	Structure Evolution of Chemically Degraded ZIF-8. <i>Journal of Physical Chemistry C</i> , 2022, 126, 9736-9741.	1.5	7
4	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
5	Structure determination and magnetic properties of the Mn-doped MAX phase Cr ₂ GaC. <i>Materials Chemistry Frontiers</i> , 2021, 5, 6082-6091.	3.2	12
6	Illustrated formalisms for total scattering data: a guide for new practitioners. <i>Journal of Applied Crystallography</i> , 2021, 54, 317-332.	1.9	23
7	Oxygen-redox reactions in LiCoO ₂ cathode without O-O bonding during charge-discharge. <i>Joule</i> , 2021, 5, 720-736.	11.7	56
8	Magnetoelastic coupling, negative thermal expansion, and two-dimensional magnetic excitations in FeAs. <i>Physical Review B</i> , 2021, 103, .	1.1	6
9	Controlled Metal Oxide and Porous Carbon Templatation Using Metal-Organic Frameworks. <i>Crystal Growth and Design</i> , 2021, 21, 4249-4258.	1.4	3
10	Detailed total scattering analysis of disorder in ZIF-8. <i>Journal of Applied Crystallography</i> , 2021, 54, 759-767.	1.9	3
11	Effect of Ligand Polarity on the Internal Dipoles and Ferroelectric Distortion in BaTiO ₃ Nanocubes. <i>Chemistry - A European Journal</i> , 2021, 27, 8365-8371.	1.7	4
12	New Insights into the Bulk and Surface Defect Structures of Ceria Nanocrystals from Neutron Scattering Study. <i>Chemistry of Materials</i> , 2021, 33, 3959-3970.	3.2	24
13	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
14	Sulfur Tolerant Subnanometer Fe/Alumina Catalysts for Propane Dehydrogenation. <i>ACS Applied Nano Materials</i> , 2021, 4, 10055-10067.	2.4	13
15	Influence of Cation Size on the Local Atomic Structure and Electronic Properties of Ta Perovskite Oxynitrides. <i>Inorganic Chemistry</i> , 2021, 60, 14190-14201.	1.9	9
16	Catalytic activity and water stability of the MgO(111) surface for 2-pentanone condensation. <i>Applied Catalysis B: Environmental</i> , 2021, 294, 120234.	10.8	9
17	Controlled Demolition and Reconstruction of Imidazolate and Carboxylate Metal-Organic Frameworks by Acid Gas Exposure and Linker Treatment. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 15582-15592.	1.8	4
18	Temperature Dependent Local Atomic Structure and Vibrational Dynamics of Barium Hydride and Calcium Hydride. <i>Journal of Physical Chemistry C</i> , 2021, 125, 24328-24339.	1.5	5

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19	Kinetically Controlled Linker Binding in Rare Earth-2,5-Dihydroxyterephthalic Acid Metal-Organic Frameworks and Its Predicted Effects on Acid Gas Adsorption. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 56337-56347.	4.0	15
20	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
21	High frequency atomic tunneling yields ultralow and glass-like thermal conductivity in chalcogenide single crystals. <i>Nature Communications</i> , 2020, 11, 6039.	5.8	36
22	Effect of BaCO ₃ Impurities on the Structure of BaTiO ₃ Nanocrystals: Implications for Multilayer Ceramic Capacitors. <i>ACS Applied Nano Materials</i> , 2020, 3, 9715-9723.	2.4	14
23	Nanoscale degeneracy lifting in a geometrically frustrated antiferromagnet. <i>Physical Review B</i> , 2020, 101, .	1.1	13
24	Metal oxide decorated porous carbons from controlled calcination of a metal-organic framework. <i>Nanoscale Advances</i> , 2020, 2, 2758-2767.	2.2	10
25	Nature of Reactive Hydrogen for Ammonia Synthesis over a Ru/C12A7 Electride Catalyst. <i>Journal of the American Chemical Society</i> , 2020, 142, 7655-7667.	6.6	59
26	The emergent field of high entropy oxides: Design, prospects, challenges, and opportunities for tailoring material properties. <i>APL Materials</i> , 2020, 8, .	2.2	152
27	Calorimetric study of the thermodynamic properties of Mn ₅ O ₈ . <i>Journal of the American Ceramic Society</i> , 2019, 102, 1394-1401.	1.9	5
28	Unified View of the Local Cation-Ordered State in Inverse Spinel Oxides. <i>Inorganic Chemistry</i> , 2019, 58, 14389-14402.	1.9	21
29	Framework Doping of Ni Enhances Pseudocapacitive Na-Ion Storage of (Ni)MnO ₂ Layered Birnessite. <i>Chemistry of Materials</i> , 2019, 31, 8774-8786.	3.2	51
30	Entropic elasticity and negative thermal expansion in a simple cubic crystal. <i>Science Advances</i> , 2019, 5, eaay2748.	4.7	28
31	Structural water and disordered structure promote aqueous sodium-ion energy storage in sodium-birnessite. <i>Nature Communications</i> , 2019, 10, 4975.	5.8	75
32	Retarder effect on hydrating oil well cements investigated using in situ neutron/X-ray pair distribution function analysis. <i>Cement and Concrete Research</i> , 2019, 126, 105920.	4.6	18
33	A novel P3-type Na _{2/3} Mg _{1/3} Mn _{2/3} O ₂ as high capacity sodium-ion cathode using reversible oxygen redox. <i>Journal of Materials Chemistry A</i> , 2019, 7, 1491-1498.	5.2	122
34	Resolving local configurational contributions to X-ray and neutron radial distribution functions within solutions of concentrated electrolytes – a case study of concentrated NaOH. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 6828-6838.	1.3	14
35	Countercations 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
36	Thermal desulfurization of pyrite: An in situ high-T neutron diffraction and DTA-TGA study. <i>Journal of Materials Research</i> , 2019, 34, 3243-3253.	1.2	17

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37	Ring size distribution in silicate glasses revealed by neutron scattering first sharp diffraction peak analysis. <i>Journal of Non-Crystalline Solids</i> , 2019, 516, 71-81.	1.5	43
38	Understanding the Low-Voltage Hysteresis of Anionic Redox in Na ₂ Mn ₃ O ₇ . <i>Chemistry of Materials</i> , 2019, 31, 3756-3765.	3.2	112
39	Long-Range Antiferromagnetic Order in a Rocksalt High Entropy Oxide. <i>Chemistry of Materials</i> , 2019, 31, 3705-3711.	3.2	112
40	Learning to Predict Material Structure from Neutron Scattering Data. , 2019, , .		8
41	Structural features associated with multiferroic behavior in the RX ₃ (BO ₃) ₄ system. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 505704.	0.7	3
42	Structural, Chemical, Electrical, and Thermal Properties of <i>n</i> -Type NbFeSb. <i>Inorganic Chemistry</i> , 2019, 58, 1826-1833.	1.9	8
43	Neutron Scattering Investigations of Hydride Species in Heterogeneous Catalysis. <i>ChemSusChem</i> , 2019, 12, 5-5.	3.6	0
44	Neutron Scattering Investigations of Hydride Species in Heterogeneous Catalysis. <i>ChemSusChem</i> , 2019, 12, 93-103.	3.6	29
45	Uncorrelated Bi off-centering and the insulator-to-metal transition in ruthenium A ₂ Ru ₂ O ₇ pyrochlores. <i>Physical Review Materials</i> , 2019, 3, .	0.9	12
46	POWGEN: rebuild of a third-generation powder diffractometer at the Spallation Neutron Source. <i>Journal of Applied Crystallography</i> , 2019, 52, 1189-1201.	1.9	57
47	Heterogeneous nucleation in Zr-Cu-Al-Ag metallic glasses triggered by quenched-in metastable crystals - A time-resolved neutron diffraction study. <i>Physica B: Condensed Matter</i> , 2018, 551, 60-63.	1.3	6
48	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
49	Icosahedra clustering and short range order in Ni-Nb-Zr amorphous membranes. <i>Scientific Reports</i> , 2018, 8, 6084.	1.6	13
50	Structure-Induced Reversible Anionic Redox Activity in Na Layered Oxide Cathode. <i>Joule</i> , 2018, 2, 125-140.	11.7	311
51	Capturing the Details of N ₂ Adsorption in Zeolite X Using Stroboscopic Isotope Contrasted Neutron Total Scattering. <i>Chemistry of Materials</i> , 2018, 30, 296-302.	3.2	12
52	Ubiquitous Short-Range Distortion of Hybrid Perovskites and Hydrogen-Bonding Role: the MAPbCl ₃ Case. <i>Journal of Physical Chemistry C</i> , 2018, 122, 28265-28272.	1.5	21
53	A high temperature gas flow environment for neutron total scattering studies of complex materials. <i>Review of Scientific Instruments</i> , 2018, 89, 092906.	0.6	5
54	Coupled Multimodal Dynamics of Hydrogen-Containing Ion Networks in Water-Deficient, Sodium Hydroxide-Aluminate Solutions. <i>Journal of Physical Chemistry B</i> , 2018, 122, 12097-12106.	1.2	12

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55	Boehmite and Gibbsite Nanoplates for the Synthesis of Advanced Alumina Products. ACS Applied Nano Materials, 2018, 1, 7115-7128.	2.4	79
56	A suite-level review of the neutron powder diffraction instruments at Oak Ridge National Laboratory. Review of Scientific Instruments, 2018, 89, 092701.	0.6	90
57	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
58	A uniaxial load frame for in situ neutron studies of stress-induced changes in cementitious materials and related systems. Review of Scientific Instruments, 2018, 89, 092903.	0.6	4
59	The high pressure gas capabilities at Oak Ridge National Laboratory's neutron facilities. Review of Scientific Instruments, 2018, 89, 092907.	0.6	2
60	Preface: Special Topic on Advances in Modern Neutron Diffraction at Oak Ridge National Laboratory. Review of Scientific Instruments, 2018, 89, 092601.	0.6	1
61	Shell-Induced Ostwald Ripening: Simultaneous Structure, Composition, and Morphology Transformations during the Creation of Hollow Iron Oxide Nanocapsules. ACS Nano, 2018, 12, 9051-9059.	7.3	36
62	Large-Scale Synthesis and Comprehensive Structure Study of γ - MnO_2 . Inorganic Chemistry, 2018, 57, 6873-6882.	1.9	29
63	Decoding Oxyanion Aqueous Solvation Structure: A Potassium Nitrate Example at Saturation. Journal of Physical Chemistry B, 2018, 122, 7584-7589.	1.2	14
64	A numerical method for deriving shape functions of nanoparticles for pair distribution function refinements. Acta Crystallographica Section A: Foundations and Advances, 2018, 74, 322-331.	0.0	26
65	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.	0.0	31
66	Synthesis and structure of synthetically pure and deuterated amorphous (basic) calcium carbonates. Chemical Communications, 2017, 53, 2942-2945.	2.2	28
67	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
68	The Role of Structural and Compositional Heterogeneities in the Insulator-to-Metal Transition in Hole-Doped APd_3O_4 (A = Ca, Sr). Inorganic Chemistry, 2017, 56, 5158-5164.	1.9	8
69	Quantitative Analysis of the Morphology of {101} and {001} Faceted Anatase TiO_2 Nanocrystals and Its Implication on Photocatalytic Activity. Chemistry of Materials, 2017, 29, 5591-5604.	3.2	65
70	Structural water engaged disordered vanadium oxide nanosheets for high capacity aqueous potassium-ion storage. Nature Communications, 2017, 8, 15520.	5.8	121
71	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.	1.9	20
72	Universal Dynamics of Molecular Reorientation in Hybrid Lead Iodide Perovskites. Journal of the American Chemical Society, 2017, 139, 16875-16884.	6.6	129

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73	Multimodality of Structural, Electrical, and Gravimetric Responses of Intercalated MXenes to Water. ACS Nano, 2017, 11, 11118-11126.	7.3	183
74	Pair distribution function analysis applied to decahedral gold nanoparticles. Physica Scripta, 2017, 92, 114002.	1.2	4
75	Hydrothermal Preparation, Crystal Chemistry, and Redox Properties of Iron Muscovite Clay. ACS Applied Materials & Interfaces, 2017, 9, 34024-34032.	4.0	5
76	Quantum Griffiths Phase Inside the Ferromagnetic Phase of $\text{Ni}_2\text{V}_2\text{S}_7$. Physical Review Letters, 2017, 118, 267202.	10.1	10
77	Structural and magnetic short-range order in fluorite $\text{Yb}_2\text{Mn}_2\text{F}_8$. Physical Review B, 2017, 96, .	12	1
78	Understanding Hollow Metal Oxide Nanomaterial Formation with in situ Transmission Electron Microscopy. Microscopy and Microanalysis, 2017, 23, 2066-2067.	0.2	0
79	Combinatorial appraisal of transition states for <i>in situ</i> pair distribution function analysis. Journal of Applied Crystallography, 2017, 50, 1744-1753.	1.9	18
80	The 8th American Conference on Neutron Scattering. Neutron News, 2016, 27, 4-10.	0.1	0
81	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.	1.3	34
82	Short-Range Order of Methylammonium and Persistence of Distortion at the Local Scale in MAPbBr_3 Hybrid Perovskite. Angewandte Chemie - International Edition, 2016, 55, 14320-14324.	7.2	42
83	Magnetic hardening and antiferromagnetic/ferromagnetic phase coexistence in Mn_2Sn Heusler solid solutions. Physical Review B, 2016, 94, .	1.1	7
84	Time-dependent Local and Average Structural Evolution of γ -phase ^{239}Pu -Ga Alloys. MRS Advances, 2016, 1, 3019-3025.	0.5	1
85	Nanoscale Ni/Mn Ordering in the High Voltage Spinel Cathode $\text{LiNi}_{0.5}\text{Mn}_{1.5}\text{O}_4$. Chemistry of Materials, 2016, 28, 6817-6821.	3.2	42
86	X-ray and neutron total scattering analysis of $\text{H}_x\text{Bi}_{0.2}\text{Ca}_{0.55}\text{Sr}_{0.25}(\text{Ag}_{0.25}\text{Na}_{0.75})\text{Nb}$ perovskite nanosheet booklets with stacking disorder. Powder Diffraction, 2016, 31, 126-134.	0.75	1
87	Verification of Anderson Superexchange in MnO via Magnetic Pair Distribution Function Analysis and <i>ab initio</i> Theory. Physical Review Letters, 2016, 116, 197204.	2.9	34
88	Structural Evolution in Hollandite Solid Solutions Across the A-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.	1.9	23
89	Use of Bayesian Inference in Crystallographic Structure Refinement via Full Diffraction Profile Analysis. Scientific Reports, 2016, 6, 31625.	1.6	20
90	Structures, Phase Transitions and Tricritical Behavior of the Hybrid Perovskite Methyl Ammonium Lead Iodide. Scientific Reports, 2016, 6, 35685.	1.6	440

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91	Resolving the Structure of Ti_3C_2Tx MXenes through Multilevel Structural Modeling of the Atomic Pair Distribution Function. Chemistry of Materials, 2016, 28, 349-359.	3.2	374
92	Average and local structure of the Pb-free ferroelectric perovskites $SrBa_2Ti_2O_{10}$. Physical Review B, 2015, 92, .		
93	<i>DSHAPER</i> : an approach for handling missing low- <i>Q</i> data in pair distribution function analysis of nanostructured systems. Journal of Applied Crystallography, 2015, 48, 1651-1659.	1.9	23
94	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
95	Cation and anion ordering in $Sr_2Si_7Al_3ON_{13}$ phosphors. Journal of Materials Chemistry C, 2015, 3, 3135-3140.	2.7	8
96	Intrinsic differences in atomic ordering of calcium (alumino)silicate hydrates in conventional and alkali-activated cements. Cement and Concrete Research, 2015, 67, 66-73.	4.6	72
97	Synthesis and structural characterization of dense polycrystalline Mg_9Sn_5 , a metastable $Mg\text{-}Sn$ phase. Journal of Alloys and Compounds, 2014, 616, 333-339.	2.8	8
98	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
99	Local structure and structural rigidity of the green phosphor SiAlON:Eu^{2+} . Applied Physics Letters, 2014, 105, 181904.	1.5	39
100	Magnetic and nuclear structure of goethite (FeOOH): a neutron diffraction study. Journal of Applied Crystallography, 2014, 47, 1983-1991.	1.9	18
101	Synthesis and structural study of Ti-rich $Mg\text{-}Ti$ hydrides. Journal of Alloys and Compounds, 2014, 593, 132-136.	2.8	15
102	Evidence for Topologically Protected Surface States and a Superconducting Phase in Tl_4 .		

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109	Average and Local Structural Origins of the Optical Properties of the Nitride Phosphor $\text{La}_{3-x}\text{Ce}_x\text{Si}_6\text{N}_{11}$ ($0 < x < 3$). Inorganic Chemistry, 2013, 52, 13730-13741.	1.9	103
110	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.	2.6	82
111	In situ X-ray pair distribution function analysis of geopolymer gel nanostructure formation kinetics. Physical Chemistry Chemical Physics, 2013, 15, 8573.	1.3	60
112	Quantifying amorphous and crystalline phase content with the atomic pair distribution function. Journal of Applied Crystallography, 2013, 46, 332-336.	1.9	25
113	Local atomic structure deviation from average structure of $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}$	1.1	111
114	Structural Investigation of the Substituted Pyrochlore AgSbO_3 through Total Scattering Techniques. Inorganic Chemistry, 2013, 52, 11530-11537.	1.9	9
115	Empirical potential structure refinement of semi-crystalline polymer systems: polytetrafluoroethylene and polychlorotrifluoroethylene. Journal of Physics Condensed Matter, 2013, 25, 454219.	0.7	9
116	Insight into the local structure of barium indate oxide-ion conductors: An X-ray total scattering study. Dalton Transactions, 2012, 41, 50-53.	1.6	19
117	Novel Synthesis and Structural Analysis of Ferrihydrite. Inorganic Chemistry, 2012, 51, 6421-6424.	1.9	46
118	Monoclinic crystal structure of polycrystalline $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$. Applied Physics Letters, 2011, 98, .	1.5	284
119	New $(\text{Bi}_{1.88}\text{Fe}_{0.12})(\text{Fe}_{1.42}\text{Te}_{0.58})\text{O}_{6.87}$ Pyrochlore with Spin-Glass Transition. Chemistry of Materials, 2011, 23, 2619-2625.	3.2	34
120	Treatment of hydrogen background in bulk and nanocrystalline neutron total scattering experiments. Journal of Applied Crystallography, 2011, 44, 532-539.	1.9	24
121	Building and refining complete nanoparticle structures with total scattering data. Journal of Applied Crystallography, 2011, 44, 327-336.	1.9	70
122	Studies on the decomposition of tungsten hexacarbonyl, $\text{W}(\text{CO})_6$. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s201-s202.	0.3	0
123	Extracting differential pair distribution functions using MIXSCAT . Journal of Applied Crystallography, 2010, 43, 635-638.	1.9	9
124	Probing Local Dipoles and Ligand Structure in BaTiO_3 Nanoparticles. Chemistry of Materials, 2010, 22, 4386-4391.	3.2	96
125	Probing local structure in the yellow phosphor $\text{LaSr}_2\text{AlO}_5\text{Ce}^{3+}$, by the maximum entropy method and pair distribution function analysis. Journal of Materials Chemistry, 2009, 19, 8761.	6.7	42
126	Magnetic frustration on the diamond lattice of the A-site magnetic spinels $\text{CoAl}_2\text{Ga}_x\text{O}_4$: The role of lattice expansion and site disorder. Physical Review B, 2009, 80, .	1.1	29

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127	Local structure and time-resolved photoluminescence of emulsion prepared YAG nanoparticles. Chemical Physics Letters, 2008, 465, 67-72.	1.2	36
128	Reciprocal-space and real-space neutron investigation of nanostructured Mo2C and WC. Solid State Sciences, 2008, 10, 1499-1510.	1.5	68
129	Crystal Structure and the Paraelectric-to-Ferroelectric Phase Transition of Nanoscale BaTiO ₃ . Journal of the American Chemical Society, 2008, 130, 6955-6963.	6.6	509
130	Local Structural Origins of the Distinct Electronic Properties of Nb-Substituted SrTiO ₃ and BaTiO ₃ . Physical Review Letters, 2008, 101, 205502.	2.9	81
131	Synchrotron x-ray study of polycrystalline wurtzite Zn _{1-x} Mg _x O (0 ≤ x ≤ 0.15): Evolution of crystal structure and polarization. Applied Physics Letters, 2007, 90, 101904. Evolution of local structures in polycrystalline	1.5	59
132	Evolution of local structures in polycrystalline Zn _{1-x} Mg _x O (0 ≤ x ≤ 0.15): Evolution of crystal structure and polarization. Applied Physics Letters, 2007, 90, 101904.		