

Simon Billinge

List of Publications by Year in descending order

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232
papers

18,827
citations

16791

66
h-index

14779

131
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241
all docs

241
docs citations

241
times ranked

22391
citing authors

#	ARTICLE	IF	CITATIONS
1	Location and characterization of heterogeneous phases within Mary Rose wood. <i>Matter</i> , 2022, 5, 150-161.	5.0	4
2	Structural Analysis of Molecular Materials Using the Pair Distribution Function. <i>Chemical Reviews</i> , 2022, 122, 1208-1272.	23.0	105
3	Size Dependent Optical Properties and Structure of ZnS Nanocrystals Prepared from a Library of Thioureas. <i>Chemistry of Materials</i> , 2022, 34, 706-717.	3.2	14
4	Controlling desolvation through polymer-assisted grinding. <i>CrystEngComm</i> , 2022, 24, 2305-2313.	1.3	3
5	Mechanistic Insight into the Precursor Chemistry of ZrO ₂ and HfO ₂ Nanocrystals; towards Size-Tunable Syntheses. <i>Jacs Au</i> , 2022, 2, 827-838.	3.6	6
6	Recent advances and applications of deep learning methods in materials science. <i>Npj Computational Materials</i> , 2022, 8, .	3.5	207
7	<i>nmfMapping</i> : a cloud-based web application for non-negative matrix factorization of powder diffraction and pair distribution function datasets. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2022, 78, 242-248.	0.0	6
8	Hidden Local Symmetry Breaking in Silver Diamondoid Compounds is Root Cause of Ultralow Thermal Conductivity. <i>Advanced Materials</i> , 2022, 34, e2202255.	11.1	20
9	Reaction Selectivity in Cometathesis: Yttrium Manganese Oxides. <i>Chemistry of Materials</i> , 2022, 34, 4694-4702.	3.2	4
10	Robustness test of the <i>spacegroupMining</i> model for determining space groups from atomic pair distribution function data. <i>Journal of Applied Crystallography</i> , 2022, 55, 626-630.	1.9	3
11	Liquid and Glass Phases of an Alkylguanidinium Sulfonate Hydrogen-Bonded Organic Framework. <i>Journal of the American Chemical Society</i> , 2022, 144, 11064-11068.	6.6	21
12	Intrinsic local symmetry breaking in nominally cubic paraelectric BaTiO ₃ . <i>Physical Review B</i> , 2022, 105, .	1.1	10
13	Superconducting HfO ₂ -added solution-derived YBa ₂ Cu ₃ O ₇ nanocomposite films: the effect of colloidal nanocrystal shape and crystallinity on pinning mechanism. <i>Superconductor Science and Technology</i> , 2022, 35, 084008.	1.8	3
14	Real-space texture and pole-figure analysis using the 3D pair distribution function on a platinum thin film. <i>IUCr</i> , 2022, 9, 594-603.	1.0	2
15	A cloud platform for atomic pair distribution function analysis: <i>PDFFit</i> . <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2021, 77, 2-6.	0.0	23
16	Ferroelectric state and polarization switching behaviour of ultrafine BaTiO ₃ nanoparticles with large-scale size uniformity. <i>Journal of Materials Chemistry C</i> , 2021, 9, 5267-5276.	2.7	9
17	Local and long-range atomic/magnetic structure of non-stoichiometric spinel iron oxide nanocrystallites. <i>IUCr</i> , 2021, 8, 33-45.	1.0	18
18	A high throughput optical method for studying compositional effects in electrocatalysts for CO ₂ reduction. <i>Nature Communications</i> , 2021, 12, 1114.	5.8	35

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19	Network-Forming Liquids from Metal-Organic Frameworks with Low Melting Temperatures. <i>Journal of the American Chemical Society</i> , 2021, 143, 2801-2811.	6.6	60
20	Toward <i>In Situ</i> Synchrotron Mapping of Crystal Selection Processes during Crystal Growth. <i>Chemistry of Materials</i> , 2021, 33, 3359-3367.	3.2	2
21	Superatomic solid solutions. <i>Nature Chemistry</i> , 2021, 13, 607-613.	6.6	15
22	Validation of non-negative matrix factorization for rapid assessment of large sets of atomic pair distribution function data. <i>Journal of Applied Crystallography</i> , 2021, 54, 768-775.	1.9	20
23	Dual Orbital Degeneracy Lifting in a Strongly Correlated Electron System. <i>Physical Review Letters</i> , 2021, 126, 186402.	2.9	11
24	Lowering Ternary Oxide Synthesis Temperatures by Solid-State Cometathesis Reactions. <i>Chemistry of Materials</i> , 2021, 33, 3692-3701.	3.2	14
25	Autonomous experimentation systems for materials development: A community perspective. <i>Matter</i> , 2021, 4, 2702-2726.	5.0	143
26	Modern crystallography and its foundations. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2021, 77, 1-1.	0.0	1
27	Linking far-from-equilibrium defect structures in ceramics to electromagnetic driving forces. <i>Journal of Materials Chemistry A</i> , 2021, 9, 8425-8434.	5.2	2
28	Powder diffraction. <i>Nature Reviews Methods Primers</i> , 2021, 1, .	11.8	17
29	Rapid desolvation-triggered domino lattice rearrangement in a metal-organic framework. <i>Nature Chemistry</i> , 2020, 12, 90-97.	6.6	93
30	Active Reaction Control of Cu Redox State Based on Real-Time Feedback from <i>In Situ</i> Synchrotron Measurements. <i>Journal of the American Chemical Society</i> , 2020, 142, 18758-18762.	6.6	9
31	Defect-Accommodating Intermediates Yield Selective Low-Temperature Synthesis of $\gamma\text{-MnO}_3$ Polymorphs. <i>Inorganic Chemistry</i> , 2020, 59, 13639-13650.	1.9	22
32	Complete Strain Mapping of Nanosheets of Tantalum Disulfide. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 43173-43179.	4.0	6
33	Two-orbital degeneracy lifted local precursor to a metal-insulator transition in MgTi_2O_4 . <i>Physical Review B</i> , 2020, 102, .	1.1	13
34	Understanding electronic peculiarities in tetragonal FeSe as local structural symmetry breaking. <i>Physical Review B</i> , 2020, 102, .	1.1	26
35	<i>SAS</i> PDF: pair distribution function analysis of nanoparticle assemblies from small-angle scattering data. <i>Journal of Applied Crystallography</i> , 2020, 53, 699-709.	1.9	10
36	Ultrafast x-ray diffraction study of melt-front dynamics in polycrystalline thin films. <i>Science Advances</i> , 2020, 6, eaax2445.	4.7	21

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37	Local Structural Effects Due to Micronization and Amorphization on an HIV Treatment Active Pharmaceutical Ingredient. <i>Molecular Pharmaceutics</i> , 2020, 17, 2370-2389.	2.3	14
38	A thermal-gradient approach to variable-temperature measurements resolved in space. <i>Journal of Applied Crystallography</i> , 2020, 53, 662-670.	1.9	19
39	<i>Cluster-mining</i>: an approach for determining core structures of metallic nanoparticles from atomic pair distribution function data. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2020, 76, 24-31.	0.0	34
40	Structure-mining: screening structure models by automated fitting to the atomic pair distribution function over large numbers of models. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2020, 76, 395-409.	0.0	21
41	Protonâ€“Electron Conductivity in Thin Films of a Cobaltâ€“Oxygen Evolving Catalyst. <i>ACS Applied Energy Materials</i> , 2019, 2, 3-12.	2.5	39
42	Room temperature local nematicity in FeSe superconductor. <i>Physical Review B</i> , 2019, 100, .	1.1	25
43	Using a machine learning approach to determine the space group of a structure from the atomic pair distribution function. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2019, 75, 633-643.	0.0	47
44	Zirconium Phosphate: The Pathway from Turbostratic Disorder to Crystallinity. <i>Inorganic Chemistry</i> , 2019, 58, 14260-14274.	1.9	20
45	Algorithm for distance list extraction from pair distribution functions. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2019, 75, 658-668.	0.0	9
46	Local orbital degeneracy lifting as a precursor to an orbital-selective Peierls transition. <i>Nature Communications</i> , 2019, 10, 3638.	5.8	42
47	Quantitative Structural Characterization of Catalytically Active TiO ₂ Nanoparticles. <i>ACS Applied Nano Materials</i> , 2019, 2, 6268-6276.	2.4	10
48	Twoâ€“Dimensional Arrays of Transition Metal Nitride Nanocrystals. <i>Advanced Materials</i> , 2019, 31, e1902393.	11.1	93
49	Photoinduced dynamics of nematic order parameter in FeSe. <i>Physical Review B</i> , 2019, 99, .	1.1	14
50	Stabilization of reactive Co ₄ O ₄ cubane oxygen-evolution catalysts within porous frameworks. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 11630-11639.	3.3	41
51	The rise of the X-ray atomic pair distribution function method: a series of fortunate events. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180413.	1.6	110
52	Microporous Battery Electrodes from Molecular Cluster Precursors. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 11292-11297.	4.0	8
53	Scalable Synthesis of Ultrathin Mn ₃N ₂ Exhibiting Roomâ€“Temperature Antiferromagnetism. <i>Advanced Functional Materials</i> , 2019, 29, 1809001.	7.8	67
54	Size-Dependent Lattice Dynamics of Atomically Precise Cadmium Selenide Quantum Dots. <i>Physical Review Letters</i> , 2019, 122, 026101.	2.9	12

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55	Stoichiometric Control over Ferroic Behavior in Ba(Ti _{1-x} Fe _x)O ₃ Nanocrystals. Chemistry of Materials, 2019, 31, 1318-1335.	3.2	25
56	Synthesis and Properties of Plasmonic Boron-Hyperdoped Silicon Nanoparticles. Advanced Functional Materials, 2019, 29, 1807788.	7.8	23
57	Anthracene as a Launchpad for a Phosphinidene Sulfide and for Generation of a Phosphorus-Sulfur Material Having the Composition P ₂ S, a Vulcanized Red Phosphorus That Is Yellow. Journal of the American Chemical Society, 2019, 141, 431-440.	6.6	26
58	Early stage structural development of prototypical zeolitic imidazolate framework (ZIF) in solution. Nanoscale, 2018, 10, 4291-4300.	2.8	56
59	Synthesis, characterization, and growth mechanism of motifs of ultrathin cobalt-substituted NaFeSi ₂ O ₆ nanowires. CrystEngComm, 2018, 20, 223-236.	1.3	4
60	Structure-property insights into nanostructured electrodes for Li-ion batteries from local structural and diffusional probes. Journal of Materials Chemistry A, 2018, 6, 127-137.	5.2	22
61	Magnetism in semiconducting molybdenum dichalcogenides. Science Advances, 2018, 4, eaat3672.	4.7	92
62	Improved Models for Metallic Nanoparticle Cores from Atomic Pair Distribution Function (PDF) Analysis. Journal of Physical Chemistry C, 2018, 122, 29498-29506.	1.5	41
63	Emphanitic anharmonicity in PbSe at high temperature and anomalous electronic properties in the PbQ(Q=S,Se,Te) system. Physical Review B, 2018, 98, .	1.1	23
64	Recent results on assigned and unassigned distance geometry with applications to protein molecules and nanostructures. Annals of Operations Research, 2018, 271, 161-203.	2.6	21
65	Barium titanate nanoparticles: Short-range lattice distortions with long-range cubic order. Physical Review B, 2018, 98, .	1.1	17
66	Pair Distribution Function Analysis of ZrO ₂ Nanocrystals and Insights in the Formation of ZrO ₂ -YBa ₂ Cu ₃ O ₇ Nanocomposites. Materials, 2018, 11, 1066.	1.3	20
67	Hollow organic capsules assemble into cellular semiconductors. Nature Communications, 2018, 9, 1957.	5.8	34
68	PDFgetN3: atomic pair distribution functions from neutron powder diffraction data using ad hoc corrections. Journal of Applied Crystallography, 2018, 51, 1492-1497.	1.9	29
69	Correlated local dipoles in PbTe. Physical Review Materials, 2018, 2, .	0.9	43
70	Coherent Nanotwins and Dynamic Disorder in Cesium Lead Halide Perovskite Nanocrystals. ACS Nano, 2017, 11, 3819-3831.	7.3	246
71	Modelling and validation of particle size distributions of supported nanoparticles using the pair distribution function technique. Journal of Applied Crystallography, 2017, 50, 741-748.	1.9	24
72	Superconducting order from disorder in 2H-TaSe 2 ^x S x. Npj Quantum Materials, 2017, 2, .	1.8	73

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73	Signatures of the topological $s + \hat{a}^{\sim}$ superconducting order parameter in the type-II Weyl semimetal Td-MoTe ₂ . Nature Communications, 2017, 8, 1082.	5.8	101
74	Unlocking the structure of mixed amorphous-crystalline ceramic oxide films synthesized under low temperature electromagnetic excitation. Journal of Materials Chemistry A, 2017, 5, 18434-18441.	5.2	20
75	Cation Exchange Induced Transformation of InP Magic-Sized Clusters. Chemistry of Materials, 2017, 29, 7984-7992.	3.2	67
76	Pressure tuning of structure, superconductivity, and novel magnetic order in the Ce-underdoped electron-doped cuprate $T < T_c < T^*$. Physical Review B, 2017, 96, .	1.1	6
77	2D molybdenum and vanadium nitrides synthesized by ammoniation of 2D transition metal carbides (MXenes). Nanoscale, 2017, 9, 17722-17730.	2.8	327
78	Local Environment of Terbium(III) Ions in Layered Nanocrystalline Zirconium(IV) Phosphonate-Phosphate Ion Exchange Materials. Inorganic Chemistry, 2017, 56, 8837-8846.	1.9	30
79	Robust Nanostructure from High Throughput Powder Diffraction Data. Microscopy and Microanalysis, 2017, 23, 172-173.	0.2	0
80	Real-space investigation of short-range magnetic correlations in fluoride pyrochlores $F_2 < F_7 < F_8$ and F_9 . Physical Review Materials, 2017, 1, .	0.9	15
81	Celebrating 100 years of the Debye scattering equation. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, 589-590.	0.0	25
82	Cooperative coupling of static magnetism and bulk superconductivity in the stripe phase of $La_{1-x}F_x < La_{1-x}F_{2-x} < La_{1-x}F_3$: Pressure- and doping-dependent studies. Physical Review B, 2016, 94, .	1.1	30
83	Volume-wise destruction of the antiferromagnetic Mott insulating state through quantum tuning. Nature Communications, 2016, 7, 12519.	5.8	36
84	Assigned and unassigned distance geometry: applications to biological molecules and nanostructures. 4or, 2016, 14, 337-376.	1.0	45
85	Local atomic and magnetic structure of dilute magnetic semiconductor $Ba_{1-x}Mn_x < Ba_{1-x}Mn_{2x} < Ba_{1-x}Mn_{3x}$. Physical Review B, 2016, 94, .	1.1	30
86	Structures of Hard Phases in Thermoplastic Polyurethanes. Macromolecules, 2016, 49, 7350-7358.	2.2	36
87	Atomic electron tomography: 3D structures without crystals. Science, 2016, 353, .	6.0	181
88	Direct Observation of Dynamic Symmetry Breaking above Room Temperature in Methylammonium Lead Iodide Perovskite. ACS Energy Letters, 2016, 1, 880-887.	8.8	221
89	Investigating short-range magnetic correlations in real space with the magnetic pair distribution function (mPDF). Neutron News, 2016, 27, 14-16.	0.1	1
90	Novel trends in pair distribution function approaches on bulk systems with nanoscale heterogeneities. Neutron News, 2016, 27, 27-31.	0.1	1

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91	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
92	Towards atomistic understanding of polymorphism in the solvothermal synthesis of ZrO ₂ nanoparticles. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2016, 72, 645-650.	0.0	41
93	Polymorphism in magic-sized Au ₁₄₄ (SR) ₆₀ clusters. <i>Nature Communications</i> , 2016, 7, 11859.	5.8	167
94	Towards solution and refinement of organic crystal structures by fitting to the atomic pair distribution function. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2016, 72, 62-72.	0.0	23
95	Control of electronic properties of 2D carbides (MXenes) by manipulating their transition metal layers. <i>Nanoscale Horizons</i> , 2016, 1, 227-234.	4.1	394
96	Perovskites at the nanoscale: from fundamentals to applications. <i>Nanoscale</i> , 2016, 8, 6206-6208.	2.8	21
97	Recrystallization, Phase Composition, and Local Structure of Amorphous Lactose from the Total Scattering Pair Distribution Function. <i>Crystal Growth and Design</i> , 2016, 16, 210-220.	1.4	28
98	Total-Scattering Pair-Distribution Function of Organic Material from Powder Electron Diffraction Data. <i>Microscopy and Microanalysis</i> , 2015, 21, 459-471.	0.2	24
99	Demonstration of thin film pair distribution function analysis (tfPDF) for the study of local structure in amorphous and crystalline thin films. <i>IUCr</i> , 2015, 2, 481-489.	1.0	50
100	Reconciliation of local and long-range tilt correlations in underdoped La _{2-x} BaxCuO ₄ (0 ≤ x ≤ 0.155). <i>Physical Review B</i> , 2015, 91, .	1.1	28
101	Magnetic structure determination from the magnetic pair distribution function (mPDF): ground state of MnO. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2015, 71, 325-334.	0.0	42
102	Imaging Dirac-mass disorder from magnetic dopant atoms in the ferromagnetic topological insulator Cr _x (Bi _{0.1} Sb _{0.9}) _{2-x} Te ₃ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 1316-1321.	3.3	206
103	Two-Step Nucleation and Growth of InP Quantum Dots via Magic-Sized Cluster Intermediates. <i>Chemistry of Materials</i> , 2015, 27, 1432-1441.	3.2	240
104	Detection and characterization of nanoparticles in suspension at low concentrations using the X-ray total scattering pair distribution function technique. <i>Nanoscale</i> , 2015, 7, 5480-5487.	2.8	35
105	Modelling pair distribution functions (PDFs) of organic compounds: describing both intra- and intermolecular correlation functions in calculated PDFs. <i>Journal of Applied Crystallography</i> , 2015, 48, 171-178.	1.9	47
106	Enhanced thermoelectric power and electronic correlations in RuSe ₂ . <i>APL Materials</i> , 2015, 3, .	2.2	11
107	Calibration and data collection protocols for reliable lattice parameter values in electron pair distribution function studies. <i>Journal of Applied Crystallography</i> , 2015, 48, 244-251.	1.9	20
108	Algorithm for systematic peak extraction from atomic pair distribution functions. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2015, 71, 392-409.	0.0	13

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109	Structural Evolution of Iron Antimonides from Amorphous Precursors to Crystalline Products Studied by Total Scattering Techniques. <i>Journal of the American Chemical Society</i> , 2015, 137, 9652-9658.	6.6	18
110	Correlating Size and Composition-Dependent Effects with Magnetic, Mössbauer, and Pair Distribution Function Measurements in a Family of Catalytically Active Ferrite Nanoparticles. <i>Chemistry of Materials</i> , 2015, 27, 3572-3592.	3.2	77
111	X-Ray Diffraction Computed Tomography for Structural Analysis of Electrode Materials in Batteries. <i>Journal of the Electrochemical Society</i> , 2015, 162, A1310-A1314.	1.3	50
112	Celebrating the past, looking to the future. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2015, 71, 1-2.	0.0	5
113	Complex modeling: a strategy and software program for combining multiple information sources to solve ill posed structure and nanostructure inverse problems. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2015, 71, 562-568.	0.0	223
114	Nature of Activated Manganese Oxide for Oxygen Evolution. <i>Journal of the American Chemical Society</i> , 2015, 137, 14887-14904.	6.6	359
115	Atomic pair distribution function: a revolution in the characterization of nanostructured pharmaceuticals. <i>Nanomedicine</i> , 2015, 10, 2473-2475.	1.7	10
116	Resonant spin tunneling in randomly oriented nanospheres of Mn ₁₂ acetate. <i>Physical Review B</i> , 2015, 91, .	1.1	3
117	On the estimation of statistical uncertainties on powder diffraction and small-angle scattering data from two-dimensional X-ray detectors. <i>Journal of Applied Crystallography</i> , 2014, 47, 1273-1283.	1.9	17
118	Structure of Nanocrystalline Ti_3C_2 Using Atomic Pair Distribution Function. <i>Physical Review Letters</i> , 2014, 112, 125501.	1.9	161
119	Nanoscale coherent intergrowthlike defects in a crystal of $\text{La}_{1.9}\text{Ca}_{1.1}\text{Cu}_2\text{O}_6$ made superconducting by high-pressure oxygen annealing. <i>Physical Review B</i> , 2014, 90, .	1.1	3
120	Intra-unit-cell nematic charge order in the titanium-oxypnictide family of superconductors. <i>Nature Communications</i> , 2014, 5, 5761.	5.8	25
121	Evolution of atomic structure during nanoparticle formation. <i>IUCr</i> , 2014, 1, 165-171.	1.0	46
122	Magnetic pair distribution function analysis of local magnetic correlations. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2014, 70, 3-11.	0.0	52
123	Structure of Sulfate Adsorption Complexes on Ferrihydrite. <i>Environmental Science and Technology Letters</i> , 2014, 1, 97-101.	3.9	79
124	Structure of Methylammonium Lead Iodide Within Mesoporous Titanium Dioxide: Active Material in High-Performance Perovskite Solar Cells. <i>Nano Letters</i> , 2014, 14, 127-133.	4.5	282
125	Local off-centering symmetry breaking in the high-temperature regime of SnTe. <i>Physical Review B</i> , 2014, 89, .	1.1	72
126	Atomic Structures and Gram Scale Synthesis of Three Tetrahedral Quantum Dots. <i>Journal of the American Chemical Society</i> , 2014, 136, 10645-10653.	6.6	182

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127	Bulk Metallic Glass-like Scattering Signal in Small Metallic Nanoparticles. ACS Nano, 2014, 8, 6163-6170.	7.3	26
128	Mechanisms for Iron Oxide Formation under Hydrothermal Conditions: An <i>in Situ</i> Total Scattering Study. ACS Nano, 2014, 8, 10704-10714.	7.3	75
129	Synthesis and characterization of two-dimensional Nb ₄ C ₃ (MXene). Chemical Communications, 2014, 50, 9517-9520.	2.2	481
130	Local Vibrations and Negative Thermal Expansion in ZrW_2O_8 . Physical Review Letters, 2014, 112, 045505.	2.9	192
131	Robust structure and morphology parameters for CdS nanoparticles by combining small-angle X-ray scattering and atomic pair distribution function data in a complex modeling framework. Journal of Applied Crystallography, 2014, 47, 561-565.	1.9	21
132	Quantitative Structural Analysis of Nanoparticles Using Electron Pair Distribution Function (ePDF). Microscopy and Microanalysis, 2014, 20, 630-631.	0.2	1
133	Cu(Ir ^x Crx)2S4: a model system for studying nanoscale phase coexistence at the metal-insulator transition. Scientific Reports, 2014, 4, 4081.	1.6	15
134	Hollandites as a new class of multiferroics. Scientific Reports, 2014, 4, 6203.	1.6	35
135	Pair distribution function computed tomography. Nature Communications, 2013, 4, 2536.	5.8	96
136	Toward Phase Quantification at the Nanoscale Using the Total Scattering Pair Distribution Function (TSPDF) Method: Recrystallization of Cryomilled Sulfamerazine. Crystal Growth and Design, 2013, 13, 4239-4244.	1.4	30
137	Evidence for Anomalous Bond Softening and Disorder Below 2 nm Diameter in Carbon-Supported Platinum Nanoparticles from the Temperature-Dependent Peak Width of the Atomic Pair Distribution Function. Journal of Physical Chemistry C, 2013, 117, 7226-7230.	1.5	21
138	Confirmation of disordered structure of ultrasmall CdSe nanoparticles from X-ray atomic pair distribution function analysis. Physical Chemistry Chemical Physics, 2013, 15, 8480.	1.3	71
139	Intermediate-Range Structure of Self-Assembled Cobalt-Based Oxygen-Evolving Catalyst. Journal of the American Chemical Society, 2013, 135, 6403-6406.	6.6	151
140	Towards a robust ad hoc data correction approach that yields reliable atomic pair distribution functions from powder diffraction data. Journal of Physics Condensed Matter, 2013, 25, 454202.	0.7	21
141	Local structural evidence for strong electronic correlations in spinel LiRh ₂ O ₈ . Physical Review Letters, 2013, 111, 087201.	1.1	19
142	Evidence for Short-Range-Ordered Charge Stripes Far above the Charge-Ordering Transition in $Sr_{1.67}Co$. Physical Review Letters, 2013, 111, 096404.	2.9	30
143	A new vision for Acta Crystallographica Section A. Acta Crystallographica Section A: Foundations and Advances, 2013, 69, 533-534.	0.3	0
144	In-Situ Monitoring of Particle Growth at PEMFC Cathode under Accelerated Cycling Conditions. Electrochemical and Solid-State Letters, 2012, 15, B72.	2.2	28

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145	Lattice dynamics reveals a local symmetry breaking in the emergent dipole phase of PbTe. Physical Review B, 2012, 86, .	1.1	55
146	Quantitative nanostructure characterization using atomic pair distribution functions obtained from laboratory electron microscopes. Zeitschrift für Kristallographie, 2012, 227, 248-256.	1.1	41
147	Local structure of ReO ₃ at ambient pressure from neutron total-scattering study. Physical Review B, 2012, 86, .	1.1	13
148	Understanding the Formation and Evolution of Ceria Nanoparticles Under Hydrothermal Conditions. Angewandte Chemie - International Edition, 2012, 51, 9030-9033.	7.2	88
149	Revealing the Mechanisms behind SnO ₂ Nanoparticle Formation and Growth during Hydrothermal Synthesis: An In Situ Total Scattering Study. Journal of the American Chemical Society, 2012, 134, 6785-6792.	6.6	180
150	Diverse Structural and Magnetic Properties of Differently Prepared MnAs Nanoparticles. ACS Nano, 2011, 5, 2970-2978.	7.3	17
151	Tuning the Surface Structure and Optical Properties of CdSe Clusters Using Coordination Chemistry. Journal of Physical Chemistry Letters, 2011, 2, 3075-3080.	2.1	62
152	Synthesis, crystal structure, and magnetism of $\text{Fe}^{\text{II}}\text{Fe}^{\text{III}}\text{S}_4$ through the Metal-Insulator Transitions of Cu_2S and FeS . Physical Review B, 2011, 84, .	1.1	61
153	Data Requirements for the Reliable Use of Atomic Pair Distribution Functions in Amorphous Pharmaceutical Fingerprinting. Pharmaceutical Research, 2011, 28, 1041-1048.	1.7	72
154	Nyquist-Shannon sampling theorem applied to refinements of the atomic pair distribution function. Physical Review B, 2011, 84, .	1.1	62
155	Ordered mapping of the local structure of Cu_2S through the Metal-Insulator Transitions of Cu_2S and FeS . Physical Review B, 2011, 84, .	2.9	24
156	Local structural investigation of $\text{SmFeAsO}_{1-x}\text{F}_x$ high temperature superconductors. Journal of Physics Condensed Matter, 2011, 23, 272201.	0.7	7
157	Crystal structure solution from experimentally determined atomic pair distribution functions. Journal of Applied Crystallography, 2010, 43, 623-629.	1.9	25
158	Quantitative nanoparticle structures from electron crystallography data. Physical Review B, 2010, 81, .	1.1	5
159	Magnetic phase transition in V_2O_5 . Physical Review B, 2010, 82, .	2.2	22
160	Nanoscale disorder and local electronic properties of CaCu_2O_7 . An integrated study of electron, neutron, and x-ray diffraction, x-ray absorption fine structure. Physical Review B, 2010, 81, .	3.1	58
161	Advances in Scattering Probes for Materials. MRS Bulletin, 2010, 35, 495-503.	1.7	5
162	Tiopronin Gold Nanoparticle Precursor Forms Auophilic Ring Tetramer. Inorganic Chemistry, 2010, 49, 10858-10866.	1.9	46

#	ARTICLE	IF	CITATIONS
163	Entropically Stabilized Local Dipole Formation in Lead Chalcogenides. <i>Science</i> , 2010, 330, 1660-1663.	6.0	308
164	Characterisation of amorphous and nanocrystalline molecular materials by total scattering. <i>CrystEngComm</i> , 2010, 12, 1366-1368.	1.3	78
165	Relationship between the atomic pair distribution function and small-angle scattering: implications for modeling of nanoparticles. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2009, 65, 232-239.	0.3	168
166	How do your crystals grow?. <i>Nature Physics</i> , 2009, 5, 13-14.	6.5	17
167	Local and average structures of the spin-glass pyrochlore $\text{Y}_2\text{Fe}_2\text{O}_7$ determined by neutron diffraction and neutron pair distribution function analysis. <i>Physical Review B</i> , 2009, 79, .	1.1	44
168	The Liga algorithm for <i>ab initio</i> determination of nanostructure. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2008, 64, 631-640.	0.3	17
169	Study of Local Structure in Selected Organic-Inorganic Perovskites in the $\text{Pm}\bar{3}n$ Phase. <i>Chemistry of Materials</i> , 2008, 20, 1272-1277.	3.2	70
170	Search for a structural response to the intermediate phase in $\text{Ge}_x\text{Se}_{1-x}$ glasses. <i>Physical Review B</i> , 2008, 77, .	1.1	61
171	Chapter 16. Local Structure from Total Scattering and Atomic Pair Distribution Function (PDF) Analysis. , 2008, , 464-493.		12
172	Nanoscale structural domains in the phonon-glass thermoelectric material Zn_4Sb_3 . <i>Physical Review B</i> , 2007, 75, .	1.1	30
173	The Problem with Determining Atomic Structure at the Nanoscale. <i>Science</i> , 2007, 316, 561-565.	6.0	614
174	Structures of Alkali Metals in Silica Gel Nanopores: A New Materials for Chemical Reductions and Hydrogen Production. <i>Journal of the American Chemical Society</i> , 2007, 129, 1386-1392.	6.6	46
175	PDFfit2 and PDFgui: computer programs for studying nanostructure in crystals. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 335219.	0.7	1,225
176	Quantitative size-dependent structure and strain determination of CdSe nanoparticles using atomic pair distribution function analysis. <i>Physical Review B</i> , 2007, 76, .	1.1	204
177	Local Lattice Dynamics in the $\text{Mg}_{0.5}\text{Al}_{0.5}\text{B}_2$ Superconductor. <i>Journal of Superconductivity and Novel Magnetism</i> , 2007, 20, 505-510.	0.8	4
178	Fine-Scale Nanostructure in $\gamma\text{-Al}_2\text{O}_3$. <i>Chemistry of Materials</i> , 2006, 18, 3242-3248.	3.2	102
179	Accurate Structure Determination of Mo_6Sylz Nanowires from Atomic Pair Distribution Function (PDF) Analysis. <i>Chemistry of Materials</i> , 2006, 18, 100-106.	3.2	23
180	Ab initio determination of solid-state nanostructure. <i>Nature</i> , 2006, 440, 655-658.	13.7	169

#	ARTICLE	IF	CITATIONS
181	PDF from X-ray powder diffraction for nanometer-scale atomic structure analysis of quasicrystalline alloys. Zeitschrift Fur Kristallographie - Crystalline Materials, 2005, 220, 962-967.	0.4	18
182	Orbital Correlations in the Pseudocubic and Rhombohedral Phases of LaMnO ₃ . Physical Review Letters, 2005, 94, 177203.	2.9	159
183	The real structure of Na ₃ BiO ₄ by electron microscopy, HR-XRD and PDF analysis. Zeitschrift Fur Kristallographie - Crystalline Materials, 2005, 220, 231-244.	0.4	9
184	Mercury Binding Sites in Thiol-Functionalized Mesoporous Silica. Journal of the American Chemical Society, 2005, 127, 8492-8498.	6.6	130
185	Determination of standard uncertainties in fits to pair distribution functions. Acta Crystallographica Section A: Foundations and Advances, 2004, 60, 315-317.	0.3	19
186	Reciprocal-space instrumental effects on the real-space neutron atomic pair distribution function. Journal of Applied Crystallography, 2004, 37, 110-116.	1.9	90
187	PDFgetX2: a GUI-driven program to obtain the pair distribution function from X-ray powder diffraction data. Journal of Applied Crystallography, 2004, 37, 678-678.	1.9	890
188	Beyond crystallography: the study of disorder, nanocrystallinity and crystallographically challenged materials with pair distribution functions. Chemical Communications, 2004, , 749.	2.2	430
189	Planar Nets of Ti Atoms Comprising Squares and Rhombs in the New Binary Antimonide Ti ₂ Sb. Journal of the American Chemical Society, 2004, 126, 8295-8302.	6.6	18
190	Probing Local and Long-Range Structure Simultaneously: An In Situ Study of the High-Temperature Phase Transition of LiAlF_3 . Journal of the American Chemical Society, 2004, 126, 4756-4757.	6.6	59
191	The atomic pair distribution function: past and present. Zeitschrift Fur Kristallographie - Crystalline Materials, 2004, 219, .	0.4	67
192	Improved measures of quality for the atomic pair distribution function. Journal of Applied Crystallography, 2003, 36, 53-64.	1.9	96
193	Rapid-acquisition pair distribution function (RA-PDF) analysis. Journal of Applied Crystallography, 2003, 36, 1342-1347.	1.9	501
194	Structural analysis of complex materials using the atomic pair distribution function â€” a practical guide. Zeitschrift Fur Kristallographie - Crystalline Materials, 2003, 218, 132-143.	0.4	249
195	Lattice dynamics and correlated atomic motion from the atomic pair distribution function. Physical Review B, 2003, 67, .	1.1	145
196	Structural Response to Local Charge Order in Underdoped but Superconducting La _{2-x} (Sr,Ba) _x CuO ₄ . International Journal of Modern Physics B, 2003, 17, 3640-3647.	1.0	7
197	STRAIN, NANO-PHASE SEPARATION, MULTI-SCALE STRUCTURES AND FUNCTION OF ADVANCED MATERIALS. , 2003, , .		0
198	Structural compliance, misfit strain, and stripe nanostructures in cuprate superconductors. Physical Review B, 2002, 66, .	1.1	12

#	ARTICLE	IF	CITATIONS
199	Structure of Intercalated Cs in Zeolite ITQ-4: An Array of Metal Ions and Correlated Electrons Confined in a Pseudo-1D Nanoporous Host. <i>Physical Review Letters</i> , 2002, 89, 075502.	2.9	67
200	Structure of nanocrystalline materials using atomic pair distribution function analysis: Study of LiMoS ₂ . <i>Physical Review B</i> , 2002, 65, .	1.1	170
201	Structure of V ₂ O ₅ ·nH ₂ O Xerogel Solved by the Atomic Pair Distribution Function Technique. <i>Journal of the American Chemical Society</i> , 2002, 124, 10157-10162.	6.6	406
202	Role of Framework Sodium versus Local Framework Structure in Determining the Hydrothermal Stability of MCM-41 Mesostructures. <i>Journal of the American Chemical Society</i> , 2002, 124, 97-103.	6.6	95
203	From Crystals to Nanocrystals: Semiconductors and Beyond. <i>Fundamental Materials Research</i> , 2002, , 153-168.	0.1	1
204	Cu _x UTe ₃ : Stabilization of UTe ₃ in the ZrSe ₃ Structure Type via Copper Insertion. The Artifact of Te ²⁺ Te Chains and Evidence for Distortions Due to Long Range Modulations. <i>Journal of the American Chemical Society</i> , 2001, 123, 4755-4762.	6.6	29
205	Structure of crystallographically challenged materials by profile analysis of atomic pair distribution functions: study of LiMoS ₂ and mesostructured MnGe ₄ S ₁₀ . <i>Materials Research Society Symposia Proceedings</i> , 2001, 678, 151.	0.1	1
206	Teaching diffraction using computer simulations over the Internet. <i>Journal of Applied Crystallography</i> , 2001, 34, 767-770.	1.9	24
207	Mesostructured Non-Oxidic Solids with Adjustable Worm-hole Shaped Pores: M-Ge-Q (Q = S, Se) Frameworks Based on Tetrahedral [Ge ₄ Q ₁₀] ⁴⁻ Clusters. <i>Advanced Materials</i> , 2000, 12, 85-91.	11.1	43
208	PDFgetN: a user-friendly program to extract the total scattering structure factor and the pair distribution function from neutron powder diffraction data. <i>Journal of Applied Crystallography</i> , 2000, 33, 1192-1192.	1.9	262
209	Microscopic Charge Inhomogeneities in Underdoped La _{2-x} Sr _x CuO ₄ : Local Structural Evidence. <i>Journal of Superconductivity and Novel Magnetism</i> , 2000, 13, 713-722.	0.5	12
210	Application of Atomic Pair Distribution Function Analysis to Materials with Intrinsic Disorder. Three-Dimensional Structure of Exfoliated-Restacked WS ₂ : Not Just a Random Turbostratic Assembly of Layers. <i>Journal of the American Chemical Society</i> , 2000, 122, 11571-11576.	6.6	93
211	Polyhedral Units and Network Connectivity in Calcium Aluminosilicate Glasses from High-Energy X-Ray Diffraction. <i>Physical Review Letters</i> , 2000, 85, 3436-3439.	2.9	157
212	Neutron Diffraction Evidence of Microscopic Charge Inhomogeneities in the CuO ₂ Plane of Superconducting La _{2-x} Sr _x CuO ₄ (0 ≤ x ≤ 0.30). <i>Physical Review Letters</i> , 2000, 84, 5856-5859.	2.9	149
213	Mesostructured Non-Oxidic Solids with Adjustable Worm-hole Shaped Pores: M-Ge-Q (Q=S, Se) Frameworks Based on Tetrahedral [Ge ₄ Q ₁₀] ⁴⁻ Clusters. , 2000, 12, 85.		1
214	Local structure of nanoporous carbons. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1999, 79, 1519-1530.	0.6	112
215	Simulation of nanoporous carbons: A chemically constrained structure. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1999, 79, 1499-1518.	0.6	81
216	PDFFIT, a program for full profile structural refinement of the atomic pair distribution function. <i>Journal of Applied Crystallography</i> , 1999, 32, 572-575.	1.9	448

#	ARTICLE	IF	CITATIONS
217	Textural Mesoporosity and the Catalytic Activity of Mesoporous Molecular Sieves with Wormhole Framework Structures. <i>Journal of the American Chemical Society</i> , 1999, 121, 8835-8842.	6.6	340
218	Measuring Correlated Atomic Motion Using X-ray Diffraction. <i>Journal of Physical Chemistry A</i> , 1999, 103, 921-924.	1.1	131
219	High Real-Space Resolution Measurement of the Local Structure of $\text{Ga}_{1-x}\text{In}_x\text{As}$ Using X-Ray Diffraction. <i>Physical Review Letters</i> , 1999, 83, 4089-4092.	2.9	127
220	High real-space resolution structure of materials by high-energy x-ray diffraction. <i>Materials Research Society Symposia Proceedings</i> , 1999, 590, 151.	0.1	1
221	Charge Inhomogeneities in the Colossal Magneto-resistant Manganites From the Local Atomic Structure. <i>Materials Research Society Symposia Proceedings</i> , 1999, 602, 177.	0.1	0
222	Charge Density Wave Caused by Reducing ThSe_3 by One Electron. Superstructure and Short-Range Order in ATh_2Se_6 (A = K, Rb) Studied by X-ray Diffraction, Electron Diffraction, and Diffuse Scattering. <i>Journal of the American Chemical Society</i> , 1998, 120, 10706-10714.	6.6	44
223	Neutron Scattering Studies of Compositional Heterogeneity in Sol-Gel Processed Lead Zirconate Titanates. <i>Chemistry of Materials</i> , 1998, 10, 3611-3619.	3.2	39
224	Lattice Effects in Perovskite and Pyrochlore CMR Materials. <i>Materials Research Society Symposia Proceedings</i> , 1997, 475, 533.	0.1	1
225	Symmetry Breaking in Nanostructure Development of Carbogenic Molecular Sieves: Effects of Morphological Pattern Formation on Oxygen and Nitrogen Transport. <i>Chemistry of Materials</i> , 1996, 8, 2159-2171.	3.2	32
226	Direct Observation of Lattice Polaron Formation in the Local Structure of $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$. <i>Physical Review Letters</i> , 1996, 77, 715-718.	2.9	409
227	LATTICE EFFECTS IN HIGH- T_c SUPERCONDUCTORS. , 1996, , 265-373.		46
228	Determination of The Local Atomic Structure of $\text{LA}_{2-x}(\text{SR},\text{BA})_x\text{CUO}_4$ Materials From Neutron Powder Diffraction Data. <i>Materials Research Society Symposia Proceedings</i> , 1994, 376, 523.	0.1	1
229	Structures of the ferroelectric phases of barium titanate. <i>The Journal of Physical Chemistry</i> , 1993, 97, 2368-2377.	2.9	620
230	The nanostructure problem. <i>Physics Magazine</i> , 0, 3, .	0.1	39
231	Nanometre-scale structure from powder diffraction: total scattering and atomic pair distribution function analysis. , 0, , 649-672.		10
232	Ligand-induced symmetry breaking, size and morphology in colloidal lead sulfide QDs: from classic to thiourea precursors. , 0, 2, 1.		8