K W Chapman

List of Publications by Year
in descending order

167 papers	13,473 citations	17440 63 h-index	23533 111 g-index
172 all docs	172 docs citations	172 times ranked	14863 citing authors

#	Article	IF	Citations
1	Origin of additional capacities in metal oxide lithium-ion battery electrodes. Nature Materials, 2013, 12, 1130-1136.	27.5	635
2	Capture of Volatile Iodine, a Gaseous Fission Product, by Zeolitic Imidazolate Framework-8. Journal of the American Chemical Society, 2011, 133, 12398-12401.	13.7	579
3	Radioactive Iodine Capture in Silver-Containing Mordenites through Nanoscale Silver Iodide Formation. Journal of the American Chemical Society, 2010, 132, 8897-8899.	13.7	517
4	Capturing metastable structures during high-rate cycling of LiFePO ₄ nanoparticle electrodes. Science, 2014, 344, 1252817.	12.6	493
5	Pressure-Induced Amorphization and Porosity Modification in a Metalâˆ'Organic Framework. Journal of the American Chemical Society, 2009, 131, 17546-17547.	13.7	376
6	Reversible magnesium and aluminium ions insertion in cation-deficient anatase TiO2. Nature Materials, 2017, 16, 1142-1148.	27.5	366
7	Intergranular Cracking as a Major Cause of Long-Term Capacity Fading of Layered Cathodes. Nano Letters, 2017, 17, 3452-3457.	9.1	361
8	Liquid metalâ€"organic frameworks. Nature Materials, 2017, 16, 1149-1154.	27.5	326
9	Competitive I₂ Sorption by Cu-BTC from Humid Gas Streams. Chemistry of Materials, 2013, 25, 2591-2596.	6.7	294
10	A versatile sample-environment cell for non-ambient X-ray scattering experiments. Journal of Applied Crystallography, 2008, 41, 822-824.	4.5	258
11	Negative Thermal Expansion in the Metalâ€"Organic Framework Material Cu₃(1,3,5â€benzenetricarboxylate)₂. Angewandte Chemie - International Edition, 2008, 47, 8929-8932.	13.8	251
12	Trapping Guests within a Nanoporous Metalâ€"Organic Framework through Pressure-Induced Amorphization. Journal of the American Chemical Society, 2011, 133, 18583-18585.	13.7	247
13	Compositional Dependence of Negative Thermal Expansion in the Prussian Blue Analogues MIIPtIV(CN)6 (M = Mn, Fe, Co, Ni, Cu, Zn, Cd). Journal of the American Chemical Society, 2006, 128, 7009-7014.	13.7	228
14	Metalâ€"Organic Framework Supported Cobalt Catalysts for the Oxidative Dehydrogenation of Propane at Low Temperature. ACS Central Science, 2017, 3, 31-38.	11.3	222
15	Guest-Dependent Negative Thermal Expansion in Nanoporous Prussian Blue Analogues MIIPtIV(CN)6Â·x{H2O} (0 â‰ x â‰ 2; M = Zn, Cd). Journal of the American Chemical Society, 2005, 127, 17980-17981.	13.7	215
16	Direct Observation of a Transverse Vibrational Mechanism for Negative Thermal Expansion in Zn(CN)2:â€‰ An Atomic Pair Distribution Function Analysis. Journal of the American Chemical Society, 2005, 127, 15630-15636.	13.7	211
17	Applications of an amorphous silicon-based area detector for high-resolution, high-sensitivity and fast time-resolved pair distribution function measurements. Journal of Applied Crystallography, 2007, 40, 463-470.	4.5	197
18	The Interplay of Al and Mg Speciation in Advanced Mg Battery Electrolyte Solutions. Journal of the American Chemical Society, 2016, 138, 328-337.	13.7	186

#	Article	IF	Citations
19	The AMPIX electrochemical cell: a versatile apparatus for<i>in situ</i>X-ray scattering and spectroscopic measurements. Journal of Applied Crystallography, 2012, 45, 1261-1269.	4.5	179
20	Tracking Sodium-Antimonide Phase Transformations in Sodium-Ion Anodes: Insights from Operando Pair Distribution Function Analysis and Solid-State NMR Spectroscopy. Journal of the American Chemical Society, 2016, 138, 2352-2365.	13.7	175
21	Elucidating the Mechanism of a Two-Step Spin Transition in a Nanoporous Metalâˆ’Organic Framework. Journal of the American Chemical Society, 2008, 130, 17552-17562.	13.7	172
22	Comprehensive Study of the CuF₂ Conversion Reaction Mechanism in a Lithium Ion Battery. Journal of Physical Chemistry C, 2014, 118, 15169-15184.	3.1	168
23	Guest-Dependent High Pressure Phenomena in a Nanoporous Metalâˆ’Organic Framework Material. Journal of the American Chemical Society, 2008, 130, 10524-10526.	13.7	162
24	Reversible hydrogen gas uptake in nanoporous Prussian Blue analogues. Chemical Communications, 2005, , 3322.	4.1	155
25	Silver-mordenite for radiologic gas capture from complex streams: Dual catalytic CH3I decomposition and I confinement. Microporous and Mesoporous Materials, 2014, 200, 297-303.	4.4	150
26	Adsorption of a Catalytically Accessible Polyoxometalate in a Mesoporous Channel-type Metalâ€“Organic Framework. Chemistry of Materials, 2017, 29, 5174-5181.	6.7	143
27	Reaction Heterogeneity in LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ Induced by Surface Layer. Chemistry of Materials, 2017, 29, 7345-7352.	6.7	142
28	Elucidating the Domain Structure of the Cobalt Oxide Water Splitting Catalyst by X-ray Pair Distribution Function Analysis. Journal of the American Chemical Society, 2012, 134, 11096-11099.	13.7	139
29	Multiple Redox Modes in the Reversible Lithiation of High-Capacity, Peierls-Distorted Vanadium Sulfide. Journal of the American Chemical Society, 2015, 137, 8499-8508.	13.7	127
30	Comprehensive Insights into the Structural and Chemical Changes in Mixed-Anion FeOF Electrodes by Using Operando PDF and NMR Spectroscopy. Journal of the American Chemical Society, 2013, 135, 4070-4078.	13.7	124
31	Solvation structure and energetics of electrolytes for multivalent energy storage. Physical Chemistry Chemical Physics, 2014, 16, 21941-21945.	2.8	124
32	Watching Nanoparticles Grow:â€‰ The Mechanism and Kinetics for the Formation of TiO₂-Supported Platinum Nanoparticles. Journal of the American Chemical Society, 2007, 129, 13822-13824.	13.7	122
33	Multifunctional, Tunable Metalâ€“Organic Framework Materials Platform for Bioimaging Applications. ACS Applied Materials & Interfaces, 2017, 9, 22268-22277.	8.0	122
34	Investigating Sodium Storage Mechanisms in Tin Anodes: A Combined Pair Distribution Function Analysis, Density Functional Theory, and Solid-State NMR Approach. Journal of the American Chemical Society, 2017, 139, 7273-7286.	13.7	121
35	Targeted Single-Site MOF Node Modification: Trivalent Metal Loading via Atomic Layer Deposition. Chemistry of Materials, 2015, 27, 4772-4778.	6.7	116
36	Fine-Tuning the Activity of Metalâ€“Organic Framework-Supported Cobalt Catalysts for the Oxidative Dehydrogenation of Propane. Journal of the American Chemical Society, 2017, 139, 15251-15258.	13.7	112

#	Article	IF	Citations
37	A stable cathode-solid electrolyte composite for high-voltage, long-cycle-life solid-state sodium-ion batteries. Nature Communications, 2021, 12, 1256.	12.8	110
38	Revisiting metal fluorides as lithium-ion battery cathodes. Nature Materials, 2021, 20, 841-850.	27.5	109
39	Structural Transitions of the Metal-Oxide Nodes within Metalâ€“Organic Frameworks: On the Local Structures of NU-1000 and UiO-66. Journal of the American Chemical Society, 2016, 138, 4178-4185.	13.7	108
40	A molecular cross-linking approach for hybrid metal oxides. Nature Materials, 2018, 17, 341-348.	27.5	90
41	Pressure Enhancement of Negative Thermal Expansion Behavior and Induced Framework Softening in Zinc Cyanide. Journal of the American Chemical Society, 2007, 129, 10090-10091.	13.7	89
42	Local atomic order and hierarchical polar nanoregions in a classical relaxor ferroelectric. Nature Communications, 2019, 10, 2728.	12.8	89
43	Selective Recovery of Dynamic Guest Structure in a Nanoporous Prussian Blue through in Situ X-ray Diffraction:Â A Differential Pair Distribution Function Analysis. Journal of the American Chemical Society, 2005, 127, 11232-11233.	13.7	88
44	Sinterâ€Resistant Platinum Catalyst Supported by Metalâ€“Organic Framework. Angewandte Chemie - International Edition, 2018, 57, 909-913.	13.8	88
45	Well-Defined Rhodiumâ€“Gallium Catalytic Sites in a Metalâ€“Organic Framework: Promoter-Controlled Selectivity in Alkyne Semihydrogenation to <i>E</i>-Alkenes. Journal of the American Chemical Society, 2018, 140, 15309-15318.	13.7	88
46	Large Negative Thermal Expansion and Anomalous Behavior on Compression in Cubic ReO₃-Type A^{II}B^{IV}F₆: CaZrF₆ and CaHfF₆. Chemistry of Materials, 2015, 27, 3912-3918.	6.7	86
47	Stable Metalâ€“Organic Framework-Supported Niobium Catalysts. Inorganic Chemistry, 2016, 55, 11954-11961.	4.0	85
48	Thermal Stabilization of Metalâ€“Organic Framework-Derived Single-Site Catalytic Clusters through Nanocasting. Journal of the American Chemical Society, 2016, 138, 2739-2748.	13.7	83
49	Single-atom gold oxo-clusters prepared in alkaline solutions catalyse the heterogeneous methanol self-coupling reactions. Nature Chemistry, 2019, 11, 1098-1105.	13.6	82
50	Structure, Dynamics, and Reactivity for Light Alkane Oxidation of Fe(II) Sites Situated in the Nodes of a Metalâ€“Organic Framework. Journal of the American Chemical Society, 2019, 141, 18142-18151.	13.7	80
51	Regioselective Atomic Layer Deposition in Metalâ€“Organic Frameworks Directed by Dispersion Interactions. Journal of the American Chemical Society, 2016, 138, 13513-13516.	13.7	78
52	High Substitution Rate in TiO₂ Anatase Nanoparticles with Cationic Vacancies for Fast Lithium Storage. Chemistry of Materials, 2015, 27, 5014-5019.	6.7	77
53	Identifying the Distribution of Al³⁺ in LiNi_{0.8}Co_{0.15}Al_{0.05}O₂. Chemistry of Materials, 2016, 28, 8170-8180.	6.7	77
54	Exploiting High Pressures to Generate Porosity, Polymorphism, And Lattice Expansion in the Nonporous Molecular Framework Zn(CN)₂. Journal of the American Chemical Society, 2013, 135, 7621-7628.	13.7	74

#	Article	IF	Citations
55	Best Practices for Operando Battery Experiments: Influences of X-ray Experiment Design on Observed Electrochemical Reactivity. Journal of Physical Chemistry Letters, 2015, 6, 2081-2085.	4.6	74
56	Bridging Zirconia Nodes within a Metalâ€"Organic Framework via Catalytic Ni-Hydroxo Clusters to Form Heterobimetallic Nanowires. Journal of the American Chemical Society, 2017, 139, 10410-10418.	13.7	74
57	Chasing Changing Nanoparticles with Time-Resolved Pair Distribution Function Methods. Journal of the American Chemical Society, 2012, 134, 5036-5039.	13.7	73
58	Study of Supported PtCu and PdAu Bimetallic Nanoparticles Using In-Situ X-ray Tools. Journal of Physical Chemistry C, 2010, 114, 17085-17091.	3.1	72
59	Iodine Gas Adsorption in Nanoporous Materials: A Combined Experimentâ€"Modeling Study. Industrial & Engineering Chemistry Research, 2017, 56, 2331-2338.	3.7	72
60	Thermally induced migration of a polyoxometalate within a metalâ€"organic framework and its catalytic effects. Journal of Materials Chemistry A, 2018, 6, 7389-7394.	10.3	71
61	Intrinsic Kinetic Limitations in Substituted Lithium-Layered Transition-Metal Oxide Electrodes. Journal of the American Chemical Society, 2020, 142, 7001-7011.	13.7	69
62	Negative thermal expansion and compressibility of Sc1â€"<i>x</i>Y<i>x</i>F3â€ˆ(xâ‰0.25). Journal of Applied Physics, 2013, 114, .	2.5	68
63	Addressing the characterisation challenge to understand catalysis in MOFs: the case of nanoscale Cu supported in NU-1000. Faraday Discussions, 2017, 201, 337-350.	3.2	66
64	Thermodynamics, Kinetics and Structural Evolution of Îµ-LiVOPO4 over Multiple Lithium Intercalation. Chemistry of Materials, 2016, 28, 1794-1805.	6.7	64
65	Direct observation of adsorbed H2-framework interactions in the Prussian Blue analogue MnII3[CoIII(CN)6]2: The relative importance of accessible coordination sites and van der Waals interactions. Chemical Communications, 2006, , 4013.	4.1	63
66	Revisiting the charge compensation mechanisms in LiNi_{0.8}Co_{0.2âˆ'y}Al_yO₂ systems. Materials Horizons, 2019, 6, 2112-2123.	12.2	62
67	Application of high-energy X-rays and Pair-Distribution-Function analysis to nano-scale structural studies in catalysis. Catalysis Today, 2009, 145, 213-219.	4.4	61
68	Installing Heterobimetallic Cobaltâ€"Aluminum Single Sites on a Metal Organic Framework Support. Chemistry of Materials, 2016, 28, 6753-6762.	6.7	56
69	Identifying the Structure of the Intermediate, Li_{2/3}CoPO₄, Formed during Electrochemical Cycling of LiCoPO₄. Chemistry of Materials, 2014, 26, 6193-6205.	6.7	54
70	Inorganic â€œConductive Glassâ€• Approach to Rendering Mesoporous Metalâ€"Organic Frameworks Electronically Conductive and Chemically Responsive. ACS Applied Materials & Interfaces, 2018, 10, 30532-30540.	8.0	54
71	Investigation of Surface Structures by Powder Diffraction: A Differential Pair Distribution Function Study on Arsenate Sorption on Ferrihydrite. Inorganic Chemistry, 2010, 49, 325-330.	4.0	53
72	Determining Quantitative Kinetics and the Structural Mechanism for Particle Growth in Porous Templates. Journal of Physical Chemistry Letters, 2011, 2, 2742-2746.	4.6	52

#	Article	IF	Citations
73	Reversible MOF-Based Sensors for the Electrical Detection of Iodine Gas. ACS Applied Materials & Interfaces, 2019, 11, 27982-27988.	8.0	52
74	Porosity Dependence of Compression and Lattice Rigidity in Metalâ€“Organic Framework Series. Journal of the American Chemical Society, 2019, 141, 4365-4371.	13.7	51
75	Pressureâ€Induced Sequential Orbital Reorientation in a Magnetic Framework Material. Angewandte Chemie - International Edition, 2011, 50, 419-421.	13.8	49
76	Identifying the chemical and structural irreversibility in LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ â€“ a model compound for classical layered intercalation. Journal of Materials Chemistry A, 2018, 6, 4189-4198.	10.3	48
77	Nanocrystals in Molten Salts and Ionic Liquids: Experimental Observation of Ionic Correlations Extending beyond the Debye Length. ACS Nano, 2019, 13, 5760-5770.	14.6	48
78	Applications of principal component analysis to pair distribution function data. Journal of Applied Crystallography, 2015, 48, 1619-1626.	4.5	47
79	Pore-Templated Growth of Catalytically Active Gold Nanoparticles within a Metalâ€“Organic Framework. Chemistry of Materials, 2019, 31, 1485-1490.	6.7	47
80	Atomic Layer Deposition in a Metalâ€“Organic Framework: Synthesis, Characterization, and Performance of a Solid Acid. Chemistry of Materials, 2017, 29, 1058-1068.	6.7	45
81	Lithiation Thermodynamics and Kinetics of the TiO₂ (B) Nanoparticles. Journal of the American Chemical Society, 2017, 139, 13330-13341.	13.7	45
82	Diverse Physical States of Amorphous Precursors in Zeolite Synthesis. Industrial & Engineering Chemistry Research, 2018, 57, 8460-8471.	3.7	45
83	A radially accessible tubular <i>in situ</i> X-ray cell for spatially resolved <i>operando</i> scattering and spectroscopic studies of electrochemical energy storage devices. Journal of Applied Crystallography, 2016, 49, 1665-1673.	4.5	44
84	Site-Directed Synthesis of Cobalt Oxide Clusters in a Metalâ€“Organic Framework. ACS Applied Materials & Interfaces, 2018, 10, 15073-15078.	8.0	44
85	Quantifying Reaction and Rate Heterogeneity in Battery Electrodes in 3D through Operando X-ray Diffraction Computed Tomography. ACS Applied Materials & Interfaces, 2019, 11, 18386-18394.	8.0	44
86	Adsorptive removal of Sb(V) from water using a mesoporous Zr-based metalâ€“organic framework. Polyhedron, 2018, 151, 338-343.	2.2	43
87	Tailoring the Composition of a Mixed Anion Iron-Based Fluoride Compound: Evidence for Anionic Vacancy and Electrochemical Performance in Lithium Cells. Chemistry of Materials, 2014, 26, 4190-4199.	6.7	42
88	Emerging <i>operando</i> and x-ray pair distribution function methods for energy materials development. MRS Bulletin, 2016, 41, 231-240.	3.5	42
89	Local Structure Evolution and Modes of Charge Storage in Secondary Liâ€“FeS₂ Cells. Chemistry of Materials, 2017, 29, 3070-3082.	6.7	42
90	Exploiting Pressure To Induce a â€œGuest-Blockedâ€•Spin Transition in a Framework Material. Inorganic Chemistry, 2016, 55, 10490-10498.	4.0	41

#	Article	IF	Citations
91	Sensitivity and Limitations of Structures from X-ray and Neutron-Based Diffraction Analyses of Transition Metal Oxide Lithium-Battery Electrodes. Journal of the Electrochemical Society, 2017, 164, A1802-A1811.	2.9	40
92	Selective O₂ Sorption at Ambient Temperatures via Node Distortions in Sc-MIL-100. Chemistry of Materials, 2016, 28, 3327-3336.	6.7	39
93	Unraveling the Complex Delithiation Mechanisms of Olivine-Type Cathode Materials, LiFe_{<i>x</i>}Co_{1â€“<i>x</i>}PO₄. Chemistry of Materials, 2016, 28, 3676-3690.	6.7	38
94	Structural and Mechanistic Revelations on an Iron Conversion Reaction from Pair Distribution Function Analysis. Angewandte Chemie - International Edition, 2012, 51, 4852-4855.	13.8	36
95	An ab Initio Study of Anharmonicity and Field Effects in Hydrogen-Bonded Complexes of the Deuterated Analogues of HCl and HBr with NH3and N(CH3)3. Journal of Physical Chemistry A, 2001, 105, 3371-3378.	2.5	34
96	Dual Lithium Insertion and Conversion Mechanisms in a Titanium-Based Mixed-Anion Nanocomposite. Journal of the American Chemical Society, 2011, 133, 13240-13243.	13.7	34
97	Layered Lepidocrocite Type Structure Isolated by Revisiting the Solâ€“Gel Chemistry of Anatase TiO₂: A New Anode Material for Batteries. Chemistry of Materials, 2017, 29, 8313-8324.	6.7	33
98	Synthesis, Symmetry, and Physical Properties of Cerium Pyrophosphate. Chemistry of Materials, 2008, 20, 3728-3734.	6.7	32
99	Optimizing high-pressure pair distribution function measurements in diamond anvil cells. Journal of Applied Crystallography, 2010, 43, 297-307.	4.5	32
100	Mesoscale Effects in Electrochemical Conversion: Coupling of Chemistry to Atomic- and Nanoscale Structure in Iron-Based Electrodes. Journal of the American Chemical Society, 2014, 136, 6211-6214.	13.7	32
101	The Synthesis Science of Targeted Vapor-Phase Metalâ€“Organic Framework Postmodification. Journal of the American Chemical Society, 2020, 142, 242-250.	13.7	32
102	Relating Environmental Effects and Structures, IR, and NMR Properties of Hydrogen-Bonded Complexes:Â ClH:Pyridine. Journal of Physical Chemistry A, 2001, 105, 5442-5449.	2.5	31
103	Pair distribution function analysis of pressure treated zeolite Na-A. Chemical Communications, 2009, , 3383.	4.1	31
104	Strain-Driven Stacking Faults in CdSe/CdS Core/Shell Nanorods. Journal of Physical Chemistry Letters, 2018, 9, 1900-1906.	4.6	30
105	Vapor-Phase Fabrication and Condensed-Phase Application of a MOF-Node-Supported Iron Thiolate Photocatalyst for Nitrate Conversion to Ammonium. ACS Applied Energy Materials, 2019, 2, 8695-8700.	5.1	29
106	Nanostructure Transformation as a Signature of Oxygen Redox in Li-Rich 3d and 4d Cathodes. Journal of the American Chemical Society, 2021, 143, 5763-5770.	13.7	29
107	A high-performance solid-state synthesized LiVOPO4 for lithium-ion batteries. Electrochemistry Communications, 2019, 105, 106491.	4.7	26
108	Vanadyl Phosphates A<i>_x</i>VOPO₄ (A = Li, Na, K) as Multielectron Cathodes for Alkaliâ€Ion Batteries. Advanced Energy Materials, 2020, 10, 2002638.	19.5	26

#	Article	IF	Citations
109	Multivalent Electrochemistry of Spinel Mg_{<i>x</i>}Mn_{3â€“<i>x</i>}O₄ Nanocrystals. Chemistry of Materials, 2018, 30, 1496-1504.	6.7	23
110	Orientational order-dependent thermal expansion and compressibility of ZrW2O8 and ZrMo2O8. Physical Chemistry Chemical Physics, 2013, 15, 19665.	2.8	22
111	Defect-Accommodating Intermediates Yield Selective Low-Temperature Synthesis of YMnO₃ Polymorphs. Inorganic Chemistry, 2020, 59, 13639-13650.	4.0	22
112	Mechanistic Insights into Nanoparticle Formation from Bimetallic Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2021, 143, 8976-8980.	13.7	22
113	Dramatic softening of the negative thermal expansion material HfW2O8 upon heating through its WO4 orientational order-disorder phase transition. Journal of Applied Physics, 2014, 115, 053512.	2.5	21
114	Simultaneous diffuse reflection infrared spectroscopy and X-ray pair distribution function measurements. Journal of Applied Crystallography, 2014, 47, 95-101.	4.5	21
115	Application and Limitations of Nanocasting in Metalâ€“Organic Frameworks. Inorganic Chemistry, 2018, 57, 2782-2790.	4.0	21
116	Role of disorder in limiting the true multi-electron redox in Îµ-LiVOPO₄. Journal of Materials Chemistry A, 2018, 6, 20669-20677.	10.3	21
117	Structural evolution in a melt-quenched zeolitic imidazolate framework glass during heat-treatment. Chemical Communications, 2019, 55, 2521-2524.	4.1	21
118	The Molecular Path Approaching the Active Site in Catalytic Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2021, 143, 20090-20094.	13.7	21
119	Uniform second Li ion intercalation in solid state <i>Ïµ</i>-LiVOPO4. Applied Physics Letters, 2016, 109, .	3.3	20
120	Rational synthesis and electrochemical performance of LiVOPO₄ polymorphs. Journal of Materials Chemistry A, 2019, 7, 8423-8432.	10.3	20
121	Mechanistic Insights into Câ€“H Borylation of Arenes with Organoiridium Catalysts Embedded in a Microporous Metalâ€“Organic Framework. Organometallics, 2020, 39, 1123-1133.	2.3	20
122	Whither Mn Oxidation in Mn-Rich Alkali-Excess Cathodes?. ACS Energy Letters, 2021, 6, 1055-1064.	17.4	20
123	Validation of non-negative matrix factorization for rapid assessment of large sets of atomic pair distribution function data. Journal of Applied Crystallography, 2021, 54, 768-775.	4.5	20
124	Coupling of emergent octahedral rotations to polarization in (K,Na)NbO3 ferroelectrics. Scientific Reports, 2017, 7, 15620.	3.3	19
125	Experimental considerations to study Li-excess disordered rock salt cathode materials. Journal of Materials Chemistry A, 2021, 9, 1720-1732.	10.3	19
126	A thermal-gradient approach to variable-temperature measurements resolved in space. Journal of Applied Crystallography, 2020, 53, 662-670.	4.5	19

#	Article	IF	Citations
127	Homologous Structural, Chemical, and Biological Behavior of Sc and Lu Complexes of the Picaga Bifunctional Chelator: Toward Development of Matched Theranostic Pairs for Radiopharmaceutical Applications. Bioconjugate Chemistry, 2021, 32, 1232-1241.	3.6	19
128	Lithium Insertion Mechanism in Ironâ€Based Oxyfluorides with Anionic Vacancies Probed by PDF Analysis. ChemistryOpen, 2015, 4, 443-447.	1.9	17
129	Synchrotron Operando Depth Profiling Studies of State-of-Charge Gradients in Thick Li(Ni_{0.8}Mn_{0.1}Co_{0.1})O₂ Cathode Films. Chemistry of Materials, 2020, 32, 6358-6364.	6.7	17
130	Regioselective Functionalization of the Mesoporous Metalâ€"Organic Framework, NU-1000, with Photo-Active Tris-(2,2â€²-bipyridine)ruthenium(II). ACS Omega, 2020, 5, 30299-30305.	3.5	17
131	Impact of Anion Vacancies on the Local and Electronic Structures of Iron-Based Oxyfluoride Electrodes. Journal of Physical Chemistry Letters, 2019, 10, 107-112.	4.6	16
132	Mapping spatially inhomogeneous electrochemical reactions in battery electrodes using high energy X-rays. Physical Chemistry Chemical Physics, 2013, 15, 8466.	2.8	15
133	Understanding improved electrochemical properties of NiO-doped NiF2â€"C composite conversion materials by X-ray absorption spectroscopy and pair distribution function analysis. Physical Chemistry Chemical Physics, 2014, 16, 3095.	2.8	15
134	Isomerization and Selective Hydrogenation of Propyne: Screening of Metalâ€"Organic Frameworks Modified by Atomic Layer Deposition. Journal of the American Chemical Society, 2020, 142, 20380-20389.	13.7	15
135	Pressure-induced structural phase transformation in cobalt(II) dicyanamide. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2015, 71, 252-257.	1.1	14
136	Catalytically Active Silicon Oxide Nanoclusters Stabilized in a Metalâ€"Organic Framework. Chemistry - A European Journal, 2017, 23, 8532-8536.	3.3	14
137	Atomic Structure of 2 nm Size Metallic Cobalt Prepared by Electrochemical Conversion: An in Situ Pair Distribution Function Study. Journal of Physical Chemistry C, 2018, 122, 23861-23866.	3.1	14
138	Resolving Single-layer Nanosheets as Short-lived Intermediates in the Solution Synthesis of FeS. , 2021, 3, 698-703.		14
139	Lowering Ternary Oxide Synthesis Temperatures by Solid-State Cometathesis Reactions. Chemistry of Materials, 2021, 33, 3692-3701.	6.7	14
140	Reactive Gas Environment Induced Structural Modification of Noble-Transition Metal Alloy Nanoparticles. Physical Review Letters, 2012, 109, 125504.	7.8	13
141	Comprehensive study of a versatile polyol synthesis approach for cathode materials for Li-ion batteries. Nano Research, 2019, 12, 2238-2249.	10.4	13
142	Microwave-assisted synthesis and electrochemical evaluation of VO₂ (B) nanostructures. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2015, 71, 722-726.	1.1	12
143	Evolution of Active Sites in Pt-Based Nanoalloy Catalysts for the Oxidation of Carbonaceous Species by Combined in Situ Infrared Spectroscopy and Total X-ray Scattering. ACS Applied Materials & Interfaces, 2018, 10, 10870-10881.	8.0	12
144	Nonstoichiometry and Defects in Hydrothermally Synthesized Îµ-LiVOPO₄. ACS Applied Energy Materials, 2019, 2, 4792-4800.	5.1	12

#	Article	IF	Citations
145	Operando Observations and Firstâ€Principles Calculations of Reduced Lithium Insertion in Auâ€Coated LiMn 2 O 4. Advanced Materials Interfaces, 2019, 6, 1801923.	3.7	11
146	Revealing Local Disorder in a Silver-Bismuth Halide Perovskite upon Compression. Journal of Physical Chemistry Letters, 2021, 12, 532-536.	4.6	11
147	Correlating structure and chemistry through simultaneous in situ pair distribution function and infrared spectroscopy measurements. CrystEngComm, 2013, 15, 9377.	2.6	10
148	Extending the Compositional Range of Nanocasting in the Oxozirconium Cluster-Based Metalâ€"Organic Framework NU-1000â€"A Comparative Structural Analysis. Chemistry of Materials, 2018, 30, 1301-1315.	6.7	10
149	Salt Effects on Li-Ion Exchange Kinetics of Na2Mg2P3O9N: Systematic In Situ Synchrotron Diffraction Studies. Journal of Physical Chemistry C, 2020, 124, 6522-6527.	3.1	10
150	Engineering Dendrimer-Templated, Metalâ€"Organic Framework-Confined Zero-Valent, Transition-Metal Catalysts. ACS Applied Materials & Interfaces, 2021, 13, 36232-36239.	8.0	10
151	Relative Kinetics of Solid-State Reactions: The Role of Architecture in Controlling Reactivity. Journal of the American Chemical Society, 2022, 144, 11975-11979.	13.7	10
152	Localversusaverage structure: a study of neighborite (NaMgF3) utilizing the pair distribution function method for structure determination. Journal of Applied Crystallography, 2007, 40, 441-448.	4.5	9
153	Active Reaction Control of Cu Redox State Based on Real-Time Feedback from In Situ Synchrotron Measurements. Journal of the American Chemical Society, 2020, 142, 18758-18762.	13.7	9
154	Energetics and Structure of Agâ€"Water Clusters Formed in Mordenite. Journal of Physical Chemistry C, 2020, 124, 4517-4524.	3.1	9
155	Multinuclear NMR Study of Zinc Dicyanide. Zeitschrift Fur Physikalische Chemie, 2012, 226, 1205-1218.	2.8	8
156	Operando Studies Reveal Structural Evolution with Electrochemical Cycling in Liâ€"CoS₂. Journal of Physical Chemistry C, 2018, 122, 24559-24569.	3.1	8
157	Best practices for <i>operando</i> depth-resolving battery experiments. Journal of Applied Crystallography, 2020, 53, 133-139.	4.5	8
158	<i>In situ</i> flow pair distribution function analysis to probe the assemblyâ€"disassemblyâ€"organisationâ€"reassembly (ADOR) mechanism of zeolite IPC-2 synthesis. Materials Advances, 2021, 2, 7949-7955.	5.4	7
159	A₂TiO₅ (A = Dy, Gd, Er, Yb) at High Pressure. Inorganic Chemistry, 2018, 57, 2269-2277.	4.0	6
160	A Precise and Scalable Post-Modification of Mesoporous Metal-Organic Framework NU-1000 Via Atomic Layer Deposition. ECS Transactions, 2016, 75, 93-99.	0.5	5
161	A multimodal analytical toolkit to resolve correlated reaction pathways: the case of nanoparticle formation in zeolites. Chemical Science, 2021, 12, 13836-13847.	7.4	5
162	A mixing-flow reactor for time-resolved reaction measurements distributed in space. Journal of Applied Crystallography, 2022, 55, 258-264.	4.5	5

#	Article	IF	Citations
163	Effective Electrochemical Charge Storage in the High-Lithium Compound Li₈ZrO₆. ACS Applied Energy Materials, 2019, 2, 1274-1287.	5.1	4
164	Reaction Selectivity in Cometathesis: Yttrium Manganese Oxides. Chemistry of Materials, 2022, 34, 4694-4702.	6.7	4
165	Sinterâ€Resistant Platinum Catalyst Supported by Metalâ€“Organic Framework. Angewandte Chemie, 2018, 130, 921-925.	2.0	3
166	Influence of Al location on formation of silver clusters in mordenite. Microporous and Mesoporous Materials, 2021, 327, 111401.	4.4	0
167	Local Disorder in a Silver-Bismuth Halide Perovskite. , 0, , .		0