

Philip A Chater

List of Publications by Year in descending order

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70
papers

4,346
citations

147801

31
h-index

106344

65
g-index

77
all docs

77
docs citations

77
times ranked

6806
citing authors

#	ARTICLE	IF	CITATIONS
1	A Water-Stable Porphyrin-Based Metal-Organic Framework Active for Visible-Light Photocatalysis. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 7440-7444.	13.8	680
2	Correlated defect nanoregions in a metal-organic framework. <i>Nature Communications</i> , 2014, 5, 4176.	12.8	550
3	Processing two-dimensional X-ray diffraction and small-angle scattering data in <i>DAWN 2</i> . <i>Journal of Applied Crystallography</i> , 2017, 50, 959-966.	4.5	356
4	Mechanistic insights into sodium storage in hard carbon anodes using local structure probes. <i>Chemical Communications</i> , 2016, 52, 12430-12433.	4.1	223
5	Metal-organic framework glasses with permanent accessible porosity. <i>Nature Communications</i> , 2018, 9, 5042.	12.8	147
6	Synthesis and crystal structure of $\text{Li}_4\text{BH}_4(\text{NH}_2)_3$. <i>Chemical Communications</i> , 2006, , 2439.	4.1	137
7	Stable amorphous georgeite as a precursor to a high-activity catalyst. <i>Nature</i> , 2016, 531, 83-87.	27.8	128
8	Stable and ordered amide frameworks synthesised under reversible conditions which facilitate error checking. <i>Nature Communications</i> , 2017, 8, 1102.	12.8	126
9	Side-chain control of porosity closure in single- and multiple-peptide-based porous materials by cooperative folding. <i>Nature Chemistry</i> , 2014, 6, 343-351.	13.6	124
10	Shape Selectivity by Guest-Driven Restructuring of a Porous Material. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 4592-4596.	13.8	98
11	Metal-organic framework crystal-glass composites. <i>Nature Communications</i> , 2019, 10, 2580.	12.8	97
12	Halogenated Metal-Organic Framework Glasses and Liquids. <i>Journal of the American Chemical Society</i> , 2020, 142, 3880-3890.	13.7	83
13	Liquid phase blending of metal-organic frameworks. <i>Nature Communications</i> , 2018, 9, 2135.	12.8	69
14	Direct synthesis of a solid calcium-silicate-hydrate (C-S-H). <i>Construction and Building Materials</i> , 2019, 223, 554-565.	7.2	67
15	Correlating Local Structure and Sodium Storage in Hard Carbon Anodes: Insights from Pair Distribution Function Analysis and Solid-State NMR. <i>Journal of the American Chemical Society</i> , 2021, 143, 14274-14286.	13.7	66
16	Synthesis and Properties of a Compositional Series of MIL-53(Al) Metal-Organic Framework Crystal-Glass Composites. <i>Journal of the American Chemical Society</i> , 2019, 141, 15641-15648.	13.7	65
17	Melting of hybrid organic-inorganic perovskites. <i>Nature Chemistry</i> , 2021, 13, 778-785.	13.6	65
18	Computationally Assisted Identification of Functional Inorganic Materials. <i>Science</i> , 2013, 340, 847-852.	12.6	62

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19	Fast synthesis and refinement of the atomic pair distribution function. Journal of Applied Crystallography, 2015, 48, 869-875.	4.5	60
20	Synthesis and characterization of amide-borohydrides: New complex light hydrides for potential hydrogen storage. Journal of Alloys and Compounds, 2007, 446-447, 350-354.	5.5	55
21	Frustrated flexibility in metal-organic frameworks. Nature Communications, 2021, 12, 4097.	12.8	55
22	Synthesis and structure of the new complex hydride Li ₂ BH ₄ NH ₂ . Chemical Communications, 2007, , 4770.	4.1	45
23	Atomic insight into hydration shells around faceted nanoparticles. Nature Communications, 2019, 10, 995.	12.8	45
24	Nanoscale structural heterogeneity in Ni-rich half-Heusler TiNiSn. Journal of Applied Physics, 2014, 116, .	2.5	44
25	Mixed hierarchical local structure in a disordered metal-organic framework. Nature Communications, 2021, 12, 2062.	12.8	44
26	Interstitial Boron Atoms in the Palladium Lattice of an Industrial Type of Nanocatalyst: Properties and Structural Modifications. Journal of the American Chemical Society, 2019, 141, 19616-19624.	13.7	43
27	Li ₂ O:Li-Mn-O Disordered Rock-Salt Nanocomposites as Cathode Prelithiation Additives for High-Energy Density Li-Ion Batteries. Advanced Energy Materials, 2020, 10, 1902788.	19.5	42
28	Hydrogen storage and ionic mobility in amide-halide systems. Faraday Discussions, 2011, 151, 271.	3.2	41
29	A comparison of the amorphization of zeolitic imidazolate frameworks (ZIFs) and aluminosilicate zeolites by ball-milling. Dalton Transactions, 2016, 45, 4258-4268.	3.3	34
30	A new class of Cu/ZnO catalysts derived from zincian georgeite precursors prepared by co-precipitation. Chemical Science, 2017, 8, 2436-2447.	7.4	32
31	Single Sublattice Endotaxial Phase Separation Driven by Charge Frustration in a Complex Oxide. Journal of the American Chemical Society, 2013, 135, 10114-10123.	13.7	27
32	Non-equilibrium metal oxides via reconversion chemistry in lithium-ion batteries. Nature Communications, 2021, 12, 561.	12.8	27
33	Atomic layer deposition of anatase TiO ₂ coating on silica particles: growth, characterization and evaluation as photocatalysts for methyl orange degradation and hydrogen production. Journal of Materials Chemistry, 2012, 22, 20203.	6.7	25
34	Thermodynamic features and enthalpy relaxation in a metal-organic framework glass. Physical Chemistry Chemical Physics, 2018, 20, 18291-18296.	2.8	24
35	Stepwise collapse of a giant pore metal-organic framework. Dalton Transactions, 2021, 50, 5011-5022.	3.3	23
36	Chemical Inhomogeneity, Short-Range Order, and Magnetism in the LiNi ₂ -NiO Solid Solution. Chemistry - A European Journal, 2013, 19, 14521-14531.	3.3	22

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37	Hexagonal perovskite related oxide ion conductor Ba ₃ NbMoO _{8.5} : phase transition, temperature evolution of the local structure and properties. Journal of Materials Chemistry A, 2019, 7, 25503-25510.	10.3	22
38	Stability, Composition, and Core-Shell Particle Structure of Uranium(IV)-Silicate Colloids. Environmental Science & Technology, 2018, 52, 9118-9127.	10.0	21
39	Structural evolution in a melt-quenched zeolitic imidazolate framework glass during heat-treatment. Chemical Communications, 2019, 55, 2521-2524.	4.1	21
40	A new route to porous metal-organic framework crystal-glass composites. Chemical Science, 2020, 11, 9910-9918.	7.4	21
41	Supercritical Antisolvent Precipitation of Amorphous Copper-Zinc Geoprite and Acetate Precursors for the Preparation of Ambient-Pressure Water-Gas-Shift Copper/Zinc Oxide Catalysts. ChemCatChem, 2017, 9, 1621-1631.	3.7	20
42	Dye-Anchoring Modes at the Dye-TiO ₂ Interface of N3- and N749-Sensitized Solar Cells Revealed by Glancing-Angle Pair Distribution Function Analysis. Journal of Physical Chemistry C, 2020, 124, 11935-11945.	3.1	20
43	Fast <i>operando</i> X-ray pair distribution function using the DRIX electrochemical cell. Journal of Synchrotron Radiation, 2020, 27, 1190-1199.	2.4	20
44	Phonon broadening from supercell lattice dynamics: Random and correlated disorder. Physica Status Solidi (B): Basic Research, 2017, 254, 1600586.	1.5	17
45	Liquid structure and dynamics in the choline acetate:urea 1:2 deep eutectic solvent. Journal of Chemical Physics, 2021, 154, 244501.	3.0	17
46	1 m long multilayer-coated deformable piezoelectric bimorph mirror for adjustable focusing of high-energy X-rays. Optics Express, 2019, 27, 16121.	3.4	16
47	On the origins of strain inhomogeneity in amorphous materials. Scientific Reports, 2018, 8, 1574.	3.3	15
48	Glassy behaviour of mechanically amorphised ZIF-62 isomorphs. Chemical Communications, 2021, 57, 9272-9275.	4.1	15
49	Reversible densification in nano-Li ₂ MnO ₃ cation disordered rock-salt Li-ion battery cathodes. Journal of Materials Chemistry A, 2020, 8, 10998-11010.	10.3	15
50	Epitaxial growth and enhanced conductivity of an IT-SOFC cathode based on a complex perovskite superstructure with six distinct cation sites. Chemical Science, 2013, 4, 2403.	7.4	12
51	Exploring the origins of crystallisation kinetics in hierarchical materials using <i>in situ</i> X-ray diffraction and pair distribution function analysis. Physical Chemistry Chemical Physics, 2020, 22, 18860-18867.	2.8	12
52	Computational prediction and experimental confirmation of B-site doping in YBa ₂ Fe ₃ O ₈ . Chemical Science, 2014, 5, 1493-1505.	7.4	11
53	Liquid Structure of a Water-in-Salt Electrolyte with a Remarkably Asymmetric Anion. Journal of Physical Chemistry B, 2021, 125, 12500-12517.	2.6	11
54	X-ray pair distribution function analysis and electrical and electrochemical properties of cerium doped Li ₅ La ₃ Nb ₂ O ₁₂ garnet solid-state electrolyte. Dalton Transactions, 2020, 49, 11727-11735.	3.3	10

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55	Multivariate analysis of disorder in metal-organic frameworks. Nature Communications, 2022, 13, 2173.	12.8	10
56	Principles of melting in hybrid organic-inorganic perovskite and polymorphic ABX ₃ structures. Chemical Science, 2022, 13, 2033-2042.	7.4	9
57	Local Crystal Structure of Antiferroelectric Bi ₂ Mn _{4/3} Ni _{2/3} O ₆ in Commensurate and Incommensurate Phases Described by Pair Distribution Function (PDF) and Reverse Monte Carlo (RMC) Modeling. Chemistry of Materials, 2014, 26, 2218-2232.	6.7	8
58	Average and Local Structure of Apatite-Type Germanates and Implications for Oxide Ion Conductivity. Inorganic Chemistry, 2019, 58, 14853-14862.	4.0	8
59	Residual strain mapping through pair distribution function analysis of the porcelain veneer within a yttria partially stabilised zirconia dental prosthesis. Dental Materials, 2019, 35, 257-269.	3.5	6
60	Lithiation phase behaviors of metal oxide anodes and extra capacities. Cell Reports Physical Science, 2021, 2, 100543.	5.6	6
61	Three-energy focusing Laue monochromator for the diamond light source x-ray pair distribution function beamline I15-1. AIP Conference Proceedings, 2016, , .	0.4	5
62	High-Energy Adventures at Diamond Light Source. Synchrotron Radiation News, 2020, 33, 31-36.	0.8	5
63	Generating the atomic pair distribution function without instrument or emission profile contributions. Journal of Applied Crystallography, 2021, 54, 444-453.	4.5	3
64	Temperature reversible synergistic formation of cerium oxyhydride and Au hydride: a combined XAS and XPDF study. Physical Chemistry Chemical Physics, 2020, 22, 18882-18890.	2.8	2
65	Structure and vibrational features of the protic ionic liquid 1,8-diazabicyclo[5.4.0]-undec-7-ene-8-ium bis(trifluoromethanesulfonyl)amide, [DBUH][TFSI]. Journal of Molecular Liquids, 2022, 347, 117981.	4.9	2
66	New B,N-hydrides: Characterization and Chemistry. Materials Research Society Symposia Proceedings, 2009, 1216, 1.	0.1	1
67	A novel, 1.5m long multilayer-coated piezo deformable bimorph mirror for focusing high-energy x-rays. AIP Conference Proceedings, 2019, , .	0.4	1
68	XPDF @ Diamond: a new dedicated X-ray PDF instrument. Acta Crystallographica Section A: Foundations and Advances, 2013, 69, s577-s577.	0.3	0
69	Phonon broadening from supercell lattice dynamics: Random and correlated disorder (Phys. Status Tj ETQq1 1 0.784314 rgBT /Overl	1.5	0
70	Interfacial Self-Assembly of Silk Fibroin Polypeptides and $\hat{\pm}$ -NiCo(OH) ₂ Nanocrystals with Tunable Energy Storage Applications. ACS Applied Electronic Materials, 2022, 4, 1214-1224.	4.3	0