Kevin H Stone

List of Publications by Year
in descending order

75 papers	4,255 citations	172386 29 h-index	110317 64 g-index
77 all docs	77 docs citations	77 times ranked	6758 citing authors

#	Article	IF	Citations
1	Coupling between oxygen redox and cation migration explains unusual electrochemistry in lithium-rich layered oxides. Nature Communications, 2017, 8, 2091.	5.8	469
2	Dynamics of pore formation during laser powder bed fusion additive manufacturing. Nature Communications, 2019, 10, 1987.	5.8	408
3	Superconductivity in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>LaFe</mml:mtext></mml:mrow><mml:mrow><mml:mn> Physical Review B, 2008, 78, .	3.7	305
4	Metalâ€“oxygen decoordination stabilizes anion redox in Li-rich oxides. Nature Materials, 2019, 18, 256-265.	13.3	280
5	Chloride in Lead Chloride-Derived Organo-Metal Halides for Perovskite-Absorber Solar Cells. Chemistry of Materials, 2014, 26, 7158-7165.	3.2	256
6	Metastable Dion-Jacobson 2D structure enables efficient and stable perovskite solar cells. Science, 2022, 375, 71-76.	6.0	216
7	Reversible Multivalent (Monovalent, Divalent, Trivalent) Ion Insertion in Open Framework Materials. Advanced Energy Materials, 2015, 5, 1401869.	10.2	185
8	Insights into operational stability and processing of halide perovskite active layers. Energy and Environmental Science, 2019, 12, 1341-1348.	15.6	125
9	An instrument for in situ time-resolved X-ray imaging and diffraction of laser powder bed fusion additive manufacturing processes. Review of Scientific Instruments, 2018, 89, 055101.	0.6	123
10	Perovskite-Inspired Photovoltaic Materials: Toward Best Practices in Materials Characterization and Calculations. Chemistry of Materials, 2017, 29, 1964-1988.	3.2	116
11	Semiconducting Leadâ^'Sulfurâ^'Organic Network Solids. Journal of the American Chemical Society, 2008, 130, 14-15.	6.6	108
12	Persistent and partially mobile oxygen vacancies in Li-rich layered oxides. Nature Energy, 2021, 6, 642-652.	19.8	106
13	Tuning Perpendicular Magnetic Anisotropy by Oxygen Octahedral Rotations in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mo		

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19	Subsurface Cooling Rates and Microstructural Response during Laser Based Metal Additive Manufacturing. Scientific Reports, 2020, 10, 1981.	1.6	64
20	Highly active oxygen evolution integrated with efficient CO ₂ to CO electroreduction. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23915-23922.	3.3	58
21	High-fraction brookite films from amorphous precursors. Scientific Reports, 2017, 7, 15232.	1.6	56
22	Monitoring a Silent Phase Transition in CH₃NH₃PbI₃ Solar Cells via Operando X-ray Diffraction. ACS Energy Letters, 2016, 1, 1007-1012.	8.8	52
23	Mn^{II}(TCNE)_{3/2}(I₃)_{1/2}â€“A 3D Networkâ€Structured Organicâ€Based Magnet and Comparison to a 2D Analog. Advanced Materials, 2010, 22, 2514-2519.	11.1	46
24	Laserâ€Induced Keyhole Defect Dynamics during Metal Additive Manufacturing. Advanced Engineering Materials, 2019, 21, 1900455.	1.6	45
25	Measurement and Modeling of Short and Medium Range Order in Amorphous Ta2O5 Thin Films. Scientific Reports, 2016, 6, 32170.	1.6	44
26	Temperature-driven growth of antiferromagnetic domains in thin-film FeRh. Journal of Physics Condensed Matter, 2015, 27, 256001.	0.7	38
27	Implementation and use of robust refinement in powder diffraction in the presence of impurities. Journal of Applied Crystallography, 2009, 42, 385-391.	1.9	37
28	Negative-pressure polymorphs made by heterostructural alloying. Science Advances, 2018, 4, eaaq1442.	4.7	34
29	Third structure determination by powder diffractometry round robin (SDPDRR-3). Powder Diffraction, 2009, 24, 254-262.	0.4	31
30	Catalytic Performance and Near-Surface X-ray Characterization of Titanium Hydride Electrodes for the Electrochemical Nitrate Reduction Reaction. Journal of the American Chemical Society, 2022, 144, 5739-5744.	6.6	31
31	Understanding the Active Sites of CO Hydrogenation on Ptâ€“Co Catalysts Prepared Using Atomic Layer Deposition. Journal of Physical Chemistry C, 2018, 122, 2184-2194.	1.5	29
32	Interpenetrating diruthenium tetraformate monocation, [RuII/III2(O2CH)4]+, based 3-D molecule-based magnets. CrystEngComm, 2009, 11, 2185.	1.3	28
33	Characterization of the Antiferromagnetism in Ag(pyz)₂(S₂O₈) (pyz = Pyrazine) with a Two-Dimensional Square Lattice of Ag²⁺ Ions. Journal of the American Chemical Society, 2009, 131, 4590-4591.	6.6	27
34	The study of the polymorphic system of 2-chloro-4-nitrobenzoic acid. New Journal of Chemistry, 2008, 32, 1747.	1.4	25
35	Cooling dynamics of two titanium alloys during laser powder bed fusion probed with in situ X-ray imaging and diffraction. Materials and Design, 2020, 195, 108987.	3.3	25
36	Effect of chemical order on the magnetic and electronic properties of epitaxial off-stoichiometryFexSi1âˆ’xthin films. Physical Review B, 2015, 91, .	1.1	24

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37	Cadmium and zinc thiolate and selenolate metalâ€“organic frameworks. Dalton Transactions, 2010, 39, 5070.	1.6	23
38	Synthesis, Characterization, and Calculated Electronic Structure of the Crystalline Metalâ€“Organic Polymers [Hg(SC6H4S)(en)]n and [Pb(SC6H4S)(dien)]n. Inorganic Chemistry, 2012, 51, 370-376.	1.9	23
39	Antiferromagnetism in a Family of S = 1 Square Lattice Coordination Polymers NiX₂(pyz)₂ (X = Cl, Br, I, NCS; pyz = Pyrazine). Inorganic Chemistry, 2016, 55, 3515-3529.	1.9	23
40	Mixing Matters: Nanoscale Heterogeneity and Stability in Metal Halide Perovskite Solar Cells. ACS Energy Letters, 2022, 7, 471-480.	8.8	23
41	Disappearing and Reappearing Polymorphism in p-Methylchalcone. Crystal Growth and Design, 2008, 8, 63-70.	1.4	21
42	Lithium-Mediated Electrochemical Nitrogen Reduction: Tracking Electrodeâ€“Electrolyte Interfaces via Time-Resolved Neutron Reflectometry. ACS Energy Letters, 2022, 7, 1939-1946.	8.8	20
43	Kramers-Kronig constrained modeling of soft x-ray reflectivity spectra: Obtaining depth resolution of electronic and chemical structure. Physical Review B, 2012, 86, .	1.1	19
44	Preparation and structure of [RuII/III2(O2CMe)4]2[Fe(CN)5NO] and magnetically ordered Hx[RuII/III2(O2CMe)4]3â^'x[Cr(CN)5NO] possessing interpenetrating lattices. Inorganica Chimica Acta, 2010, 363, 2137-2143.	1.2	17
45	Influence of amorphous structure on polymorphism in vanadia. APL Materials, 2016, 4, .	2.2	15
46	Sulvanite (Cu3VS4) nanocrystals for printable thin film photovoltaics. Materials Letters, 2018, 211, 179-182.	1.3	15
47	Experimental Characterization of a Theoretically Designed Candidate p-Type Transparent Conducting Oxide: Li-Doped Cr₂MnO₄. Chemistry of Materials, 2014, 26, 4598-4604.	3.2	14
48	Point defects in Cu 2 ZnSnSe 4 (CZTSe): Resonant Xâ€ray diffraction study of the lowâ€temperature order/disorder transition. Physica Status Solidi (B): Basic Research, 2017, 254, 1700156.	0.7	14
49	Automated prediction of lattice parameters from X-ray powder diffraction patterns. Journal of Applied Crystallography, 2021, 54, 1799-1810.	1.9	14
50	Autocatalysis and Oriented Attachment Direct the Synthesis of a Metalâ€“Organic Framework. Jacs Au, 2022, 2, 453-462.	3.6	14
51	Quantifying point defects in Cu2ZnSn(S,Se)4 thin films using resonant x-ray diffraction. Applied Physics Letters, 2016, 109, .	1.5	13
52	Using resonant energy X-ray diffraction to extract chemical order parameters in ternary semiconductors. Journal of Materials Chemistry C, 2020, 8, 4350-4356.	2.7	13
53	Growth-Controlled Broad Emission in Phase-Pure Two-Dimensional Hybrid Perovskite Films. Chemistry of Materials, 2021, 33, 7290-7300.	3.2	13
54	Molecular anisotropy effects in carbon<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>K</mml:mi></mml:math>-edge scattering: Depolarized diffuse scattering and optical anisotropy. Physical Review B, 2014, 90, .	1.1	12

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55	Using structural disorder to enhance the magnetism and spin-polarization in FexSi1 â^'xthin films for spintronics. Materials Research Express, 2014, 1, 026102.	0.8	11
56	The promise of solution-processed Fe2GeS4 thin films in iron chalcogenide photovoltaics. Journal of Materials Science, 2018, 53, 7725-7734.	1.7	9
57	Kinetic origins of the metastable zone width in the manganese oxide Pourbaix diagram. Journal of Materials Chemistry A, 2021, 9, 7857-7867.	5.2	7
58	Surface structure of coherently strained ceria ultrathin films. Physical Review B, 2016, 94, .	1.1	6
59	A laser powder bed fusion system for operando synchrotron x-ray imaging and correlative diagnostic experiments at the Stanford Synchrotron Radiation Lightsource. Review of Scientific Instruments, 2022, 93, 043702.	0.6	6
60	Formation of 6H-Ba₃Ce_{0.75}Mn_{2.25}O₉ during Thermochemical Reduction of 12R-Ba₄CeMn₃O₁₂: Identification of a Polytype in the Ba(Ce,Mn)O₃ Family. Inorganic Chemistry, 2022, 61, 6128-6137.	1.9	6
61	Hidden superlattice in Tl₂(SC₆H₄S) and Tl₂(SeC₆H₄Se) solved from powder X-ray diffraction. Acta Crystallographica Section B: Structural Science, 2011, 67, 409-415.	1.8	5
62	Solution-Phase Halide Exchange and Targeted Annealing Kinetics in Lead Chloride Derived Hybrid Perovskites. Inorganic Chemistry, 2020, 59, 13364-13370.	1.9	5
63	Linear (1-D) chain structure of [Ru2(O2CMe)4]+[CoIIIPc(CN)2]â^' determined via synchrotron powder diffraction data. Inorganica Chimica Acta, 2015, 424, 116-119.	1.2	4
64	Effects of Oxygen and Water on the Formation and Degradation Processes of (CH₃NH₃)PbI₃ Thin Films. ACS Applied Energy Materials, 2020, 3, 11269-11274.	2.5	4
65	Probing Molecular Assembly of Small Organic Molecules during Meniscus-Guided Coating Using Experimental and Molecular Dynamics Approaches. Journal of Physical Chemistry C, 2021, 125, 6269-6277.	1.5	4
66	Understanding Cu incorporation in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cu</mml:mi><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>Sn structure using resonant x-ray diffraction. Physical Review Materials, 2021, 5, .	2.9	3
67	Accurately Quantifying Stress during Metal Halide Perovskite Thin Film Formation. ACS Applied Materials & Interfaces, 2022, 14, 27791-27798.	4.0	3
68	Continuous-scan capability at SSRL and applications to X-ray diffraction. Journal of Synchrotron Radiation, 2016, 23, 909-918.	1.0	2
69	Meniscus Guided Coating and Evaporative Crystallization of UiO-66 Metal Organic Framework Thin Films. Industrial & Engineering Chemistry Research, 0, , .	1.8	2
70	Metastable Dion-Jacobson 2D structure enables efficient and stable perovskite solar cells. Science, 2021, , eabj2637.	6.0	2
71	Enhancing and Extinguishing the Different Emission Features of 2D (EA_{1â^'}_xFA_x)₄Pb₃Br₁₀ Perovskite Films. Advanced Optical Materials, 2022, 10, .	8.6	2
72	Understanding Crystallization Pathways of MnOx Polymorph Formation via in-situ X-ray Scattering. Microscopy and Microanalysis, 2018, 24, 1486-1487.	0.2	1

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73	Development of an operando characterization stage for multi-modal synchrotron x-ray experiments. Review of Scientific Instruments, 2022, 93, .	0.6	1
74	Robust Refinement as Implemented in TOPAS. Materials Science Forum, 2010, 651, 27-36.	0.3	0
75	Operando X-Ray Diffraction for Characterization of Photovoltaic Materials. , 2017, , .		0