

Kevin H Stone

List of Publications by Year in descending order

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75
papers

4,255
citations

172386

29
h-index

110317

64
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77
all docs

77
docs citations

77
times ranked

6758
citing authors

#	ARTICLE	IF	CITATIONS
1	Autocatalysis and Oriented Attachment Direct the Synthesis of a Metal-Organic Framework. <i>Jacs Au</i> , 2022, 2, 453-462.	3.6	14
2	Metastable Dion-Jacobson 2D structure enables efficient and stable perovskite solar cells. <i>Science</i> , 2022, 375, 71-76.	6.0	216
3	Catalytic Performance and Near-Surface X-ray Characterization of Titanium Hydride Electrodes for the Electrochemical Nitrate Reduction Reaction. <i>Journal of the American Chemical Society</i> , 2022, 144, 5739-5744.	6.6	31
4	A laser powder bed fusion system for operando synchrotron x-ray imaging and correlative diagnostic experiments at the Stanford Synchrotron Radiation Lightsource. <i>Review of Scientific Instruments</i> , 2022, 93, 043702.	0.6	6
5	Mixing Matters: Nanoscale Heterogeneity and Stability in Metal Halide Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2022, 7, 471-480.	8.8	23
6	Formation of $6\text{H-Ba}_3\text{Ce}_{0.75}\text{Mn}_{2.25}\text{O}_9$ during Thermochemical Reduction of $12\text{R-Ba}_4\text{CeMn}_3\text{O}_{12}$: Identification of a Polytype in the $\text{Ba}(\text{Ce,Mn})\text{O}_3$ Family. <i>Inorganic Chemistry</i> , 2022, 61, 6128-6137.	1.9	6
7	Lithium-Mediated Electrochemical Nitrogen Reduction: Tracking Electrode-Electrolyte Interfaces via Time-Resolved Neutron Reflectometry. <i>ACS Energy Letters</i> , 2022, 7, 1939-1946.	8.8	20
8	Enhancing and Extinguishing the Different Emission Features of 2D $(\text{EA})_{1-x}\text{FA}_x(\text{EA})_{1-x}\text{Pb}_3\text{Br}_{10}$ Perovskite Films. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	2
9	Accurately Quantifying Stress during Metal Halide Perovskite Thin Film Formation. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 27791-27798.	4.0	3
10	Development of an operando characterization stage for multi-modal synchrotron x-ray experiments. <i>Review of Scientific Instruments</i> , 2022, 93, .	0.6	1
11	Probing Molecular Assembly of Small Organic Molecules during Meniscus-Guided Coating Using Experimental and Molecular Dynamics Approaches. <i>Journal of Physical Chemistry C</i> , 2021, 125, 6269-6277.	1.5	4
12	Persistent and partially mobile oxygen vacancies in Li-rich layered oxides. <i>Nature Energy</i> , 2021, 6, 642-652.	19.8	106
13	Growth-Controlled Broad Emission in Phase-Pure Two-Dimensional Hybrid Perovskite Films. <i>Chemistry of Materials</i> , 2021, 33, 7290-7300.	3.2	13
14	Kinetic origins of the metastable zone width in the manganese oxide Pourbaix diagram. <i>Journal of Materials Chemistry A</i> , 2021, 9, 7857-7867.	5.2	7
15	Understanding Cu incorporation in the $\text{Cu}_{1-x}\text{Mn}_x\text{O}_2$ structure using resonant x-ray diffraction. <i>Physical Review Materials</i> , 2021, 5, .	0.9	3
16	Automated prediction of lattice parameters from X-ray powder diffraction patterns. <i>Journal of Applied Crystallography</i> , 2021, 54, 1799-1810.	1.9	14
17	Metastable Dion-Jacobson 2D structure enables efficient and stable perovskite solar cells. <i>Science</i> , 2021, , eabj2637.	6.0	2
18	Cooling dynamics of two titanium alloys during laser powder bed fusion probed with in situ X-ray imaging and diffraction. <i>Materials and Design</i> , 2020, 195, 108987.	3.3	25

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19	Solution-Phase Halide Exchange and Targeted Annealing Kinetics in Lead Chloride Derived Hybrid Perovskites. <i>Inorganic Chemistry</i> , 2020, 59, 13364-13370.	1.9	5
20	Effects of Oxygen and Water on the Formation and Degradation Processes of (CH ₃) ₃ NH ₃)PbI ₃ Thin Films. <i>ACS Applied Energy Materials</i> , 2020, 3, 11269-11274.	2.5	4
21	The Role of Dimethylammonium in Bandgap Modulation for Stable Halide Perovskites. <i>ACS Energy Letters</i> , 2020, 5, 1856-1864.	8.8	65
22	Using resonant energy X-ray diffraction to extract chemical order parameters in ternary semiconductors. <i>Journal of Materials Chemistry C</i> , 2020, 8, 4350-4356.	2.7	13
23	Subsurface Cooling Rates and Microstructural Response during Laser Based Metal Additive Manufacturing. <i>Scientific Reports</i> , 2020, 10, 1981.	1.6	64
24	Laser-Induced Keyhole Defect Dynamics during Metal Additive Manufacturing. <i>Advanced Engineering Materials</i> , 2019, 21, 1900455.	1.6	45
25	Metal-oxygen decoordination stabilizes anion redox in Li-rich oxides. <i>Nature Materials</i> , 2019, 18, 256-265.	13.3	280
26	Dynamics of pore formation during laser powder bed fusion additive manufacturing. <i>Nature Communications</i> , 2019, 10, 1987.	5.8	408
27	Insights into operational stability and processing of halide perovskite active layers. <i>Energy and Environmental Science</i> , 2019, 12, 1341-1348.	15.6	125
28	Rapid Flame-Annealed CuFe ₂ O ₄ as Efficient Photocathode for Photoelectrochemical Hydrogen Production. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 5867-5874.	3.2	65
29	Highly active oxygen evolution integrated with efficient CO ₂ to CO electroreduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 23915-23922.	3.3	58
30	Negative-pressure polymorphs made by heterostructural alloying. <i>Science Advances</i> , 2018, 4, eaaq1442.	4.7	34
31	The promise of solution-processed Fe ₂ GeS ₄ thin films in iron chalcogenide photovoltaics. <i>Journal of Materials Science</i> , 2018, 53, 7725-7734.	1.7	9
32	Understanding the Active Sites of CO Hydrogenation on Pt-Co Catalysts Prepared Using Atomic Layer Deposition. <i>Journal of Physical Chemistry C</i> , 2018, 122, 2184-2194.	1.5	29
33	An instrument for <i>in situ</i> time-resolved X-ray imaging and diffraction of laser powder bed fusion additive manufacturing processes. <i>Review of Scientific Instruments</i> , 2018, 89, 055101.	0.6	123
34	Sulvanite (Cu ₃ VS ₄) nanocrystals for printable thin film photovoltaics. <i>Materials Letters</i> , 2018, 211, 179-182.	1.3	15
35	Understanding Crystallization Pathways of MnOx Polymorph Formation via in-situ X-ray Scattering. <i>Microscopy and Microanalysis</i> , 2018, 24, 1486-1487.	0.2	1
36	Understanding crystallization pathways leading to manganese oxide polymorph formation. <i>Nature Communications</i> , 2018, 9, 2553.	5.8	98

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37	Transformation from crystalline precursor to perovskite in PbCl ₂ -derived MAPbI ₃ . Nature Communications, 2018, 9, 3458.	5.8	77
38	Perovskite-Inspired Photovoltaic Materials: Toward Best Practices in Materials Characterization and Calculations. Chemistry of Materials, 2017, 29, 1964-1988.	3.2	116
39	Point defects in Cu ₂ ZnSnSe ₄ (CZTSe): Resonant X-ray diffraction study of the low-temperature order/disorder transition. Physica Status Solidi (B): Basic Research, 2017, 254, 1700156.	0.7	14
40	Tuning Perpendicular Magnetic Anisotropy by Oxygen Octahedral Rotations in $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mo}$		

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55	Linear (1-D) chain structure of $[\text{Ru}_2(\text{O}_2\text{CMe})_4][\text{CoIII}(\text{Pc}(\text{CN})_2)]^{\sim}$ determined via synchrotron powder diffraction data. <i>Inorganica Chimica Acta</i> , 2015, 424, 116-119.	1.2	4
56	Using structural disorder to enhance the magnetism and spin-polarization in $\text{Fe}_x\text{Si}_{1-x}$ thin films for spintronics. <i>Materials Research Express</i> , 2014, 1, 026102.	0.8	11
57	Molecular anisotropy effects in carbon $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mi} \text{K} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ -edge scattering: Depolarized diffuse scattering and optical anisotropy. <i>Physical Review B</i> , 2014, 90, .	1.1	12
58	Chloride in Lead Chloride-Derived Organo-Metal Halides for Perovskite-Absorber Solar Cells. <i>Chemistry of Materials</i> , 2014, 26, 7158-7165.	3.2	256
59	Experimental Characterization of a Theoretically Designed Candidate p-Type Transparent Conducting Oxide: Li-Doped Cr_2MnO_4 . <i>Chemistry of Materials</i> , 2014, 26, 4598-4604.	3.2	14
60	Kramers-Kronig constrained modeling of soft x-ray reflectivity spectra: Obtaining depth resolution of electronic and chemical structure. <i>Physical Review B</i> , 2012, 86, .	1.1	19
61	Synthesis, Characterization, and Calculated Electronic Structure of the Crystalline Metal-Organic Polymers $[\text{Hg}(\text{SC}_6\text{H}_4\text{S})(\text{en})]_n$ and $[\text{Pb}(\text{SC}_6\text{H}_4\text{S})(\text{dien})]_n$. <i>Inorganic Chemistry</i> , 2012, 51, 370-376.	1.9	23
62	Hidden superlattice in $\text{Tl}_2(\text{SC}_6\text{H}_4\text{S})\text{H}_4\text{S}$ and $\text{Tl}_2(\text{SeC}_6\text{H}_4\text{S})\text{H}_4\text{Se}$ solved from powder X-ray diffraction. <i>Acta Crystallographica Section B: Structural Science</i> , 2011, 67, 409-415.	1.8	5
63	$\text{Mn}^{\text{II}}(\text{TCNE})_{3/2}(\text{I})_{3/2}$ - A 3D Network-Structured Organic-Based Magnet and Comparison to a 2D Analog. <i>Advanced Materials</i> , 2010, 22, 2514-2519.	11.1	46
64	Preparation and structure of $[\text{RuIII}_2(\text{O}_2\text{CMe})_4]_2[\text{Fe}(\text{CN})_5\text{NO}]$ and magnetically ordered $\text{H}_x[\text{RuIII}_2(\text{O}_2\text{CMe})_4]_3 \times [\text{Cr}(\text{CN})_5\text{NO}]$ possessing interpenetrating lattices. <i>Inorganica Chimica Acta</i> , 2010, 363, 2137-2143.	1.2	17
65	Cadmium and zinc thiolate and selenolate metal-organic frameworks. <i>Dalton Transactions</i> , 2010, 39, 5070.	1.6	23
66	Robust Refinement as Implemented in TOPAS. <i>Materials Science Forum</i> , 2010, 651, 27-36.	0.3	0
67	Third structure determination by powder diffractometry round robin (SDPDRR-3). <i>Powder Diffraction</i> , 2009, 24, 254-262.	0.4	31
68	Implementation and use of robust refinement in powder diffraction in the presence of impurities. <i>Journal of Applied Crystallography</i> , 2009, 42, 385-391.	1.9	37
69	Characterization of the Antiferromagnetism in $\text{Ag}(\text{pyz})_2(\text{S}_2\text{O}_8)$ (pyz = Pyrazine) with a Two-Dimensional Square Lattice of Ag^{2+} Ions. <i>Journal of the American Chemical Society</i> , 2009, 131, 4590-4591.	6.6	27
70	Interpenetrating diruthenium tetraformate monocation, $[\text{RuII}_2(\text{O}_2\text{CH})_4]^+$, based 3-D molecule-based magnets. <i>CrystEngComm</i> , 2009, 11, 2185.	1.3	28
71	Disappearing and Reappearing Polymorphism in p-Methylchalcone. <i>Crystal Growth and Design</i> , 2008, 8, 63-70.	1.4	21
72	The study of the polymorphic system of 2-chloro-4-nitrobenzoic acid. <i>New Journal of Chemistry</i> , 2008, 32, 1747.	1.4	25

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73	Semiconducting Lead ²⁺ Sulfur ²⁻ Organic Network Solids. Journal of the American Chemical Society, 2008, 130, 14-15.	6.6	108
74	Superconductivity in $\text{LaFeAsO}_{1-x}\text{F}_x$. Physical Review B, 2008, 78, .	1.1	5
75	Meniscus Guided Coating and Evaporative Crystallization of UiO-66 Metal Organic Framework Thin Films. Industrial & Engineering Chemistry Research, 0, , .	1.8	2