

Aaron M Holder

List of Publications by Year in descending order

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39
papers

1,968
citations

279798

23
h-index

289244

40
g-index

40
all docs

40
docs citations

40
times ranked

3153
citing authors

#	ARTICLE	IF	CITATIONS
1	A map of the inorganic ternary metal nitrides. <i>Nature Materials</i> , 2019, 18, 732-739.	27.5	274
2	Physical descriptor for the Gibbs energy of inorganic crystalline solids and temperature-dependent materials chemistry. <i>Nature Communications</i> , 2018, 9, 4168.	12.8	152
3	Reduction of CO ₂ to Methanol Catalyzed by a Biomimetic Organo-Hydride Produced from Pyridine. <i>Journal of the American Chemical Society</i> , 2014, 136, 16081-16095.	13.7	131
4	Thermodynamic Routes to Novel Metastable Nitrogen-Rich Nitrides. <i>Chemistry of Materials</i> , 2017, 29, 6936-6946.	6.7	121
5	Perovskite-Inspired Photovoltaic Materials: Toward Best Practices in Materials Characterization and Calculations. <i>Chemistry of Materials</i> , 2017, 29, 1964-1988.	6.7	116
6	Intrinsic Material Properties Dictating Oxygen Vacancy Formation Energetics in Metal Oxides. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1948-1953.	4.6	103
7	Mechanisms of LiCoO ₂ Cathode Degradation by Reaction with HF and Protection by Thin Oxide Coatings. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 24265-24278.	8.0	98
8	Effect of Surface Deposited Pt on the Photoactivity of TiO ₂ . <i>Journal of Physical Chemistry C</i> , 2012, 116, 10138-10149.	3.1	92
9	Tunable Oxygen Vacancy Formation Energetics in the Complex Perovskite Oxide Sr _x La _{1-x} Mn _y Al _{1-y} O ₃ . <i>Chemistry of Materials</i> , 2014, 26, 6595-6602.	9.0	90
10	The role of decomposition reactions in assessing first-principles predictions of solid stability. <i>Npj Computational Materials</i> , 2019, 5, .	8.7	63
11	Inorganic Halide Double Perovskites with Optoelectronic Properties Modulated by Sublattice Mixing. <i>Journal of the American Chemical Society</i> , 2020, 142, 5135-5145.	13.7	62
12	Catalytic Reduction of CO ₂ by Renewable Organohydrides. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 5078-5092.	4.6	59
13	Redox-Mediated Stabilization in Zinc Molybdenum Nitrides. <i>Journal of the American Chemical Society</i> , 2018, 140, 4293-4301.	13.7	53
14	Ternary nitride semiconductors in the rocksalt crystal structure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 14829-14834.	7.1	52
15	Implications of heterostructural alloying for enhanced piezoelectric performance of (Al,Sc)N. <i>Physical Review Materials</i> , 2018, 2, .	2.4	47
16	Novel phase diagram behavior and materials design in heterostructural semiconductor alloys. <i>Science Advances</i> , 2017, 3, e1700270.	10.3	46
17	Band Diagram and Rate Analysis of Thin Film Spinel LiMn ₂ O ₄ Formed by Electrochemical Conversion of ALD-Grown MnO. <i>Advanced Functional Materials</i> , 2016, 26, 7895-7907.	14.9	37
18	Negative-pressure polymorphs made by heterostructural alloying. <i>Science Advances</i> , 2018, 4, eaaq1442.	10.3	34

#	ARTICLE	IF	CITATIONS
19	Zn ₂ SbN ₃ : growth and characterization of a metastable photoactive semiconductor. <i>Materials Horizons</i> , 2019, 6, 1669-1674.	12.2	32
20	Synthesis of a mixed-valent tin nitride and considerations of its possible crystal structures. <i>Journal of Chemical Physics</i> , 2016, 144, 144201.	3.0	29
21	Design of Metastable Tin Titanium Nitride Semiconductor Alloys. <i>Chemistry of Materials</i> , 2017, 29, 6511-6517.	6.7	27
22	Kinetically Controlled Low-Temperature Solid-State Metathesis of Manganese Nitride Mn ₃ N ₂ . <i>Chemistry of Materials</i> , 2019, 31, 7248-7254.	6.7	26
23	Stabilizing Hydrogen Adsorption through Theory-Guided Chalcogen Substitution in Chevrel-Phase Mo ₆ X ₈ (X=S, Se, Te) Electrocatalysts. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 35995-36003.	8.0	26
24	Stabilization of wide band-gap p-type wurtzite MnTe thin films on amorphous substrates. <i>Journal of Materials Chemistry C</i> , 2018, 6, 6297-6304.	5.5	21
25	High-Throughput Equilibrium Analysis of Active Materials for Solar Thermochemical Ammonia Synthesis. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 24850-24858.	8.0	21
26	Using heterostructural alloying to tune the structure and properties of the thermoelectric Sn _{1-x} Ca _x Se. <i>Journal of Materials Chemistry A</i> , 2017, 5, 16873-16882.	10.3	19
27	Rational Design of Efficient Amine Reductant Initiators for Amine ⁺ Peroxide Redox Polymerization. <i>Journal of the American Chemical Society</i> , 2019, 141, 6279-6291.	13.7	19
28	High-Throughput Analysis of Materials for Chemical Looping Processes. <i>Advanced Energy Materials</i> , 2020, 10, 2000685.	19.5	18
29	Synthesis and Characterization of (Sn,Zn)O Alloys. <i>Chemistry of Materials</i> , 2016, 28, 7765-7772.	6.7	16
30	Solubility limits in quaternary SnTe-based alloys. <i>RSC Advances</i> , 2017, 7, 24747-24753.	3.6	14
31	Dihydropteridine/Pteridine as a 2H ⁺ /2e ⁻ Redox Mediator for the Reduction of CO ₂ to Methanol: A Computational Study. <i>Journal of Physical Chemistry B</i> , 2017, 121, 4158-4167.	2.6	13
32	Zinc-Stabilized Manganese Telluride with Wurtzite Crystal Structure. <i>Journal of Physical Chemistry C</i> , 2018, 122, 18769-18775.	3.1	13
33	Solvent Control of Surface Plasmon-Mediated Chemical Deposition of Au Nanoparticles from Alkylgold Phosphine Complexes. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 13384-13394.	8.0	8
34	The Unified Electrochemical Band Diagram Framework: Understanding the Driving Forces of Materials Electrochemistry. <i>Advanced Functional Materials</i> , 2018, 28, 1803439.	14.9	8
35	Templated Growth of Metastable Polymorphs on Amorphous Substrates with Seed Layers. <i>Physical Review Applied</i> , 2020, 13, .	3.8	7
36	Predicting Oxygen Off-Stoichiometry and Hydrogen Incorporation in Complex Perovskite Oxides. <i>Chemistry of Materials</i> , 2022, 34, 510-518.	6.7	7

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37	Computationally Predicted High-Throughput Free-Energy Phase Diagrams for the Discovery of Solid-State Hydrogen Storage Reactions. ACS Applied Materials & Interfaces, 2020, 12, 48553-48564.	8.0	6
38	High-Throughput Experimental Study of Wurtzite Mn _{1-x} Zn _x O Alloys for Water Splitting Applications. ACS Omega, 2019, 4, 7436-7447.	3.5	5
39	Wurtzite materials in alloys of rock salt compounds. Journal of Materials Research, 2020, 35, 972-980.	2.6	2